FEASIBILITY AND ECONOMIC ANALYSIS
FOR DEVELOPMENT OF A PUBLIC GOLF COURSE FACILITY

by

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in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN EDUCATION

in
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# TABLE OF CONTENTS

Title Page.................................................................i
Acknowledgements....................................................ii
Table of Contents.....................................................iii
List of Tables..........................................................vi
Chapter 1: Introduction..............................................1
  Introduction.........................................................1
  Statement of Purpose..............................................2
  Design and Procedure.............................................2
  Definition of Terms...............................................4
  Basic Assumption..................................................4
  Limitations of the Study.........................................5
  Summary..............................................................5
Chapter 2: Review of Literature..................................6
  Introduction.........................................................6
  Golf Course Demand Analysis....................................6
  Golfer Demographic Guidelines................................9
  Raising Development Capital.................................10
  Site Selection......................................................11
  Course Construction Topics....................................15
  Expense Issues.....................................................16
  Tax-Related Issues...............................................20
  Summary..............................................................21
Chapter 3: Methodology.............................................23
  Introduction.........................................................23

iii
Appendix C: Checklist for the Development of a Golf Course.................................79
Appendix D: Personal Interview Question Lists......................82
Appendix E: Cover Letter/Questionnaire to Golf Course Architects........................................86
Appendix F: Cover Letters/Questionnaire to Course Construction Contractors........................................88
Appendix G: Cover Letter/Questionnaire to Golf Course Developers.................................................92
Appendix H: Questionnaire to Commercial Lenders..............96
LIST OF TABLES

Table 1. Golf Course Demand Analysis--Harrisburg Area--March 1990.................................8
Table 2. Summary of Revenues and Operating Expenses for a Recently-Opened Golf Course.........12
Table 3. Sample Cost Estimate for Proposed 18-Hole Project............................................17
Table 4. Responses to Surveys by Commercial Lenders to Golf Projects...............................44
Table 5. Survey Responses on Course Construction Costs..................................................56
Table 6. Responses to Survey on Golf Architectural Fees....................................................59
CHAPTER 1

Introduction

To the true enthusiast, golf is an artistic expression just as putting oil to the canvas is to another type of artist. The opportunity to draw one's golf shots across the canvas of an 18-hole golf course is a source of pleasure to millions of Americans. It doesn't matter that the precision of the golf strokes rarely matches the precision with which the skilled artist executes brush strokes at an easel. Hope springs eternal. Even a single stroke played to near-perfection always brings a golfer back for more.

One of the golfer's greatest thrills is to discover a new golfing facility that provides a fresh challenge to his or her skills and intellect within a beautiful, natural environment. Not only does a new facility add a playing field to the golfer's experience, it contributes to a supply of courses which as likely as not insufficiently serve the area's golfing public. In urban areas particularly, golfers pay a price in more than dollars to gain access to tee times on a municipal or privately-owned public course. On weekends, they stand in long lines that often begin forming in the middle of the night, to obtain a tee time the next morning.

New course construction has lagged behind demand in recent years (National Golf Foundation, 1989). In fact,
"Other indicators, such as the relatively flat number of projects under construction and a significant decrease in planned facilities, hint that golf course development may yet suffer a downturn, possibly as early as 1993" (National Golf Foundation, 1993a).

Why aren't more courses being made available for the public to play? Perhaps it's because, as one source stated, many recently-developed courses have struggled to remain solvent (Rudnitsky & Koselka, 1990). If public golf facilities are badly needed in many areas, yet a high percentage of courses are battling to stay in business, problems must exist in either the planning and/or development of public courses.

Statement of Purpose

The purpose of this project was to 1) investigate the current-day challenges and problems in developing public golf facilities, and 2) develop guidelines for potential course developers by describing the steps to be taken and economic requirements to be met, in order to develop a successful new public golf facility. This report deals only with the problems and solutions in golf course planning and development, as opposed to operational challenges.

Design and Procedure

This project is descriptive in design. The first step was to review literature on the demand for public golf
facilities. Information obtained from newspapers, magazines, journals, and industry publications indicated a need for more golf facilities within range of major population areas; thus, this subject appeared worthy of further study. From this point, literature from books and from industry publications was reviewed to provide background information on site requirements and construction considerations for golf courses.

The second step was to gain information on modern-day financial requirements to start a new golf facility. Personal and telephone interviews with commercial lenders, golf course architects, and golf course developers were conducted for this purpose. Also, information was obtained from county tax officials to determine tax responsibilities to be met during the development phase.

A third step was the use of mail questionnaires which were sent to commercial lenders, golf course architects and golf building contractors. These surveys yielded information on how the requirements of various golf course sites would effect cost of development; and, the types of financial terms the developer must expect to meet in order to obtain development capital.

The fourth step was to organize and report on all of the above-stated factors. This is found in Chapter 4. Lastly, conclusions are drawn, stating the key recommended steps to
developing a successful public golf facility. These conclusions appear in Chapter 5.

Definition of Terms

Following are several terms that appear in this paper and which may require explanation:

1. Participation Rate: That percentage of a population within a given area that meets the National Golf Foundation's definition of an individual who is a "golfer."

2. Accessibility: Refers to the total number of golf holes that are available to the population within a given geographic area.

3. Loan To Value (LTV): Refers to the percentage of the total golf course developmental costs that are financed through a commercial lending institution.

4. Grow-In Period: That period of time after the course layout has been shaped and seeded, during which the course must be fully maintained until it can be put into use for actual play.

Basic Assumption

There is one basic assumption underlying this project. It is that all respondents to inquiries into the various facets of golf course development, whether responding via personal interview, telephone interview, or mail questionnaire, answered the questions as honestly as possible.
Limitations of the Study

Survey mailings to golf course architects and golf course building contractors were limited to 25 in each group. Statistics gathered from these surveys cannot be generalized as representative of all in these professions.

Summary

Golf is described as a source of recreation and pleasure to millions of Americans. However, not enough courses have been built to meet public demand. The purpose of this project was to examine the problems facing developers of public golf courses and draw conclusions as to how these developmental problems can be overcome. The chapter includes the design and procedure used, followed by the basic assumptions, definition of terms, and the limitations of the study.
CHAPTER 2
Review of Literature

Introduction

The purpose of this review is to identify literature that refers to areas that must be successfully addressed by the developer of a public course. The areas covered are golf course demand analysis, golfer demographic guidelines, raising development capital, site selection, course construction topics, expense issues, and tax related issues.

Golf Course Demand Analysis

Some 19.7 million or 79.5% of all golfers in the U.S., play predominantly on public golf courses (National Golf Foundation, 1993b). Though the percentage who play public facilities has been rising, pitfalls abound in public course development. The private developer of a public golf course must determine in advance that his/her facility will be profitable. There is an overriding problem in meeting current-day public golf demand, says one golf course lender. It is that in areas needing courses most, the cost of land is usually so high as to make the project financially unfeasible (D. Rhodes, personal communication, November 23, 1993). Where land is readily available and affordable, the courses aren't needed nearly as much (D. Rhodes, personal communication, November 23, 1993).
There are a number of approaches to judging whether a given area needs a new golf facility. In terms of population, it's estimated that a base of 20,000 to 30,000 people are needed to support one 18-hole golf course (American Institute of Real Estate Appraisers, cited in Piper, 1990). This range may be lowered if golf is a favored activity, as in a resort or retirement area (American Institute of Real Estate Appraisers, cited in Piper, 1990).

Another starting point is to utilize statistics that show the relative availability of public golf holes to the population in metropolitan areas across the country (National Golf Foundation, 1993a). However, the developer must be aware that within metropolitan areas that appear to need more courses, there will be numerous sites where a new facility is unlikely to succeed (D. Rhodes, personal communication, November 23, 1993). Another method is to utilize a formula shown in Table 1 (Hirsh, 1991). Based on a sample area's population along with other factors shown, this calculation yields an estimate of how many more courses, if any, the area in question requires.

If a certain area and site appear promising, the developer should try to determine how many golf rounds are likely to be played per year. First, he/she must estimate the maximum potential number of rounds that can be played in that climactic locale, if all possible starting times were
### Table 1

**Golf Course Demand Analysis--Harrisburg Area--March 1990**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Population</td>
<td>502,619</td>
</tr>
<tr>
<td>Mean Household Income</td>
<td>$38,544</td>
</tr>
<tr>
<td>Golf Participation Rate</td>
<td>10%</td>
</tr>
<tr>
<td>Total Golfer Population</td>
<td>50,262</td>
</tr>
<tr>
<td>Average Annual Rounds (per player)</td>
<td>22</td>
</tr>
<tr>
<td>Total Annual Potential Rounds</td>
<td>1,105,762</td>
</tr>
<tr>
<td>Existing Courses</td>
<td></td>
</tr>
<tr>
<td>11 public @ 45,000 rds</td>
<td>495,000</td>
</tr>
<tr>
<td>8 private @ 35,000 rds</td>
<td>280,000</td>
</tr>
<tr>
<td>Total Rounds</td>
<td>775,000</td>
</tr>
<tr>
<td>Unserved Rounds</td>
<td></td>
</tr>
<tr>
<td>(1,105,762 - 775,000)</td>
<td>330,762</td>
</tr>
<tr>
<td>Additional Courses Needed (@ 40,000 rds/yr)</td>
<td>8.27</td>
</tr>
</tbody>
</table>

filled (National Golf Foundation, 1989). The developer should also invest the time to interview area golfers to determine the likelihood of their support of another course (Gimmy & Benson, 1992). A course developer and a lender both state that simply learning the number of rounds played at all neighboring courses will answer the question of strength of demand in the area (B. Blevins, personal communication, October 9, 1993; D. Rhodes, personal communication, November 23, 1993).

In recent years a number of courses have been built in low-demand locations, with a rising number of bankruptcies resulting (Rudnitsky & Koselka, 1990). In addition to observing demand at existing courses, the would-be developer should also obtain up-to-date information on the number and location of courses either under construction or in planning for that given area (National Golf Foundation, 1993c).

**Golfer Demographic Guidelines**

It is possible to obtain demographic information about the population surrounding any given location through several sources (CACI Marketing Systems, 1993; J. Anderson, personal communication, November 24, 1993; National Golf Foundation, 1993b). A utilities company researcher pointed out it is even possible to obtain summary demographic data free of charge (W. Adams, personal communication, November 30, 1993).
For any metropolitan area, or state, the developer can obtain estimates on the extent to which that populace plays golf (National Golf Foundation, 1993b). Somewhat surprisingly, statistics showed that higher percentages of a population play golf in some of the country's coldest regions (Gimmy & Benson, 1992). However, the validity of participation rates was questioned (D. Rhodes, personal communication, November 23, 1993). The reasoning is that participation is to some extent fueled by the existing supply of facilities in an area.

Eccentricities in market data lead to a question: should the developer invest in a formal feasibility study by a professional appraisal firm? A certified appraiser stated that such studies cost $10,000 or more (J. Watts, personal communication, October 12, 1993). The very fact that such a study had been commissioned usually weighs favorably in a lender's decision to finance a project. In some cases, such a study may be a prerequisite of the lender (J. Watts, personal communication, October 12, 1993).

Raising Development Capital

Development of a public golf course is a highly complex, capital-intensive, time-consuming, and risky enterprise. Yet one course management executive said people will continue to invest individually or in groups because of the nature of the project itself (W. Crouse, personal
communication, November 7, 1993). Another form of group ownership, the selling of equity ownership shares, was discussed (Wickens, 1990). If a developer seeks outside investors, a course proposal and business plan should be drawn up under the guidance of an investment firm (National Golf Foundation, 1989).

Ownership groups that do not gain complete knowledge of the project's requirements often end up undercapitalized. Thus they often carry a heavy debt burden. An example of such a real-life scenario is provided in Table 2. It shows the revenues a public course received during its first 30 months of operation, the operating expenses incurred during that period, and also, the debt service paid on a loan of $1.5 million obtained by the developer. The net result was a substantial loss over the period shown.

Relevant findings from a study on the requirements of commercial lenders to golf course developments were reported (Textron Financial Corp., 1993). Golf loans by a major lender are made very infrequently and selectively (M. Gainer, personal communication, September 22, 1993).

**Site Selection**

In selecting a site, one source recommended that an area 150 acres in size be acquired, more if steep slopes or wetlands are prevalent (Anonymous, 1991). Given the
Table 2

Summary of Revenues and Operating Expenses for a Recently-Opened Public Golf Course

<table>
<thead>
<tr>
<th></th>
<th>1991 (8 months)</th>
<th>1992 (10 months)</th>
<th>1993 (10 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REVENUES:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yearly Membership Dues</td>
<td>$147,925</td>
<td>$93,105</td>
<td>$69,532</td>
</tr>
<tr>
<td>Green Fees</td>
<td>224,135</td>
<td>321,616</td>
<td>393,168</td>
</tr>
<tr>
<td>Cart Fees</td>
<td>134,460</td>
<td>236,112</td>
<td>292,984</td>
</tr>
<tr>
<td>Driving Range, Misc.</td>
<td>7,413</td>
<td>11,716</td>
<td>14,989</td>
</tr>
<tr>
<td>TOTAL REVENUES</td>
<td>$513,933</td>
<td>$662,549</td>
<td>$770,673</td>
</tr>
<tr>
<td>EXPENSES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll/Taxes/Benefits</td>
<td>$150,173</td>
<td>$264,806</td>
<td>$145,901</td>
</tr>
<tr>
<td>Course Supplies</td>
<td>84,174</td>
<td>80,098</td>
<td>72,751</td>
</tr>
<tr>
<td>Vehicle, Equipment Leases</td>
<td>113,571</td>
<td>128,077</td>
<td>118,722</td>
</tr>
<tr>
<td>Repair &amp; Maintenance</td>
<td>10,714</td>
<td>23,896</td>
<td>18,800</td>
</tr>
<tr>
<td>Utilities</td>
<td>23,914</td>
<td>23,178</td>
<td>22,346</td>
</tr>
<tr>
<td>Taxes</td>
<td>29,993</td>
<td>31,394</td>
<td>26,740</td>
</tr>
<tr>
<td>Insurance</td>
<td>28,418</td>
<td>24,548</td>
<td>29,356</td>
</tr>
<tr>
<td>General &amp; Administrative</td>
<td>99,784</td>
<td>130,094</td>
<td>232,377</td>
</tr>
<tr>
<td>TOTAL EXPENSES</td>
<td>$540,741</td>
<td>$706,091</td>
<td>$666,993</td>
</tr>
<tr>
<td>CASH FLOW</td>
<td>(26,808)</td>
<td>(43,542)</td>
<td>103,680</td>
</tr>
<tr>
<td>DEBT SERVICE</td>
<td>$57,193</td>
<td>$177,570</td>
<td>$162,694</td>
</tr>
<tr>
<td>NET AFTER DEBT SERVICE</td>
<td>($84,001)</td>
<td>($221,112)</td>
<td>($48,688)</td>
</tr>
</tbody>
</table>
Table 2, Continued
(Adapted with permission of Textron Financial Corporation, Atlanta, GA.)
difficulties of accumulating affordable land, an opinion was stated that future courses can and should be developed on smaller acreage (D. Rhodes, personal communication, November 23, 1993; W. Crouse, personal communication, November 7, 1993). An architect pointed out that consideration should also be given to the tactic of obtaining as much acreage as possible. This allows the developer to sell the unused land for a profit at a later date (R. Roquemore, personal communication, August 19, 1993).

While site drainage is important, low areas such as flood plains, marshes, and bogs are often excellent potential sites. The higher costs of setting up drainage systems are more than offset by the fact that such sites, unusable for most other building purposes, can be obtained very economically (Jones & Rando, 1974).

Another consideration is whether the tract should be heavily treed/vegetated as opposed to a relatively open site. Forested golf courses appear more mature and more attractive (Jones & Rando, 1974). However, one architect said a completely open site can be made highly attractive through mounding and the addition of strategically placed trees and/or shrubbery (R. Kirby, personal communication, September 6, 1993). Another architect pointed out that the developer must consider the substantial cost of clearing a heavily forested tract (Doak, 1992).
Whatever its physical characteristics, easy access is a more important factor than a site's attractiveness (R. Kirby, personal communication, September 6, 1993). A poor course, well-located, will be more successful than a great one on a poorly-located site (W. Crouse, personal communication, November 7, 1993).

Location in relation to other courses is not necessarily an important factor. If the total golf demographic package for the area indicates that a new course will succeed, then "you could confidently open up right next door to another course" (R. Kirby, personal communication, September 6, 1993).

Course Construction Topics

The developer should allot more time for initial permitting than he/she may think necessary (R. Kirby, personal communication, September 6, 1993). Environmental issues have become an increasing challenge in the building of courses. A list of those most often encountered is provided in "An Environmental Approach to Golf Course Development" (Love, 1992). (Appendix B).

R. Kirby (personal communication, September 6, 1993) estimated reasonable amounts of time for course construction in different regions of the country. It is mentioned that a relatively simple course design will allow more rounds to be played in any given time frame, thus increasing potential
revenues (Gimmy & Benson, 1992). Up-front costs of construction will also be lessened by the reduction of difficult-to-construct hazards.

Sample checklists for complete course design and construction steps are available. An example (Appendix C) is referred to the reader (Love, 1992).

Expense Issues

The developer should be aware of all labor requirements and materials that will be needed. Gimmy & Benson (1992) have compiled a complete sample list of total estimated costs that runs above $4 million, excluding land and clubhouse construction costs (Table 3). This table shows specific costs to be anticipated for consultants, utilities/irrigation, land improvements, ground cover/landscaping, labor, and equipment. R. Roquemore (personal communication, August 19, 1993) estimated construction costs at ideal versus difficult sites may vary between $1.5 million and $4 million. R. Kirby (personal communication, Sept. 6, 1993) said a limit of $2 million for total construction cost is an economic necessity for a public facility.

It was stated that the course architect's fee would likely range between $200,000 and $500,000 (National Golf Foundation, 1989). The architect and the construction company should be hired separately to control costs (R.
<table>
<thead>
<tr>
<th>Description</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering &amp; Surveying</td>
<td>$20,000</td>
</tr>
<tr>
<td>Design Fee--Golf Course Architect</td>
<td>175,000</td>
</tr>
<tr>
<td>Architect's Expenses</td>
<td>15,000</td>
</tr>
<tr>
<td>Irrigation Design Fee</td>
<td>26,000</td>
</tr>
<tr>
<td>Construction Management</td>
<td>60,000</td>
</tr>
<tr>
<td>General &amp; Administrative</td>
<td>20,000</td>
</tr>
<tr>
<td>Sub-Total, Consultants</td>
<td>$316,000</td>
</tr>
<tr>
<td>Utilities and Utility Installation</td>
<td>$70,000</td>
</tr>
<tr>
<td>Water Source (fee for water rights)</td>
<td>25,000</td>
</tr>
<tr>
<td>Pump Station</td>
<td>100,000</td>
</tr>
<tr>
<td>Intake Vault &amp; Pump Station Enclosure</td>
<td>45,000</td>
</tr>
<tr>
<td>Irrigation System (100 acres, 3 parallel lines,</td>
<td>960,000</td>
</tr>
<tr>
<td>sprinkler heads, outlets, connections)</td>
<td></td>
</tr>
<tr>
<td>Irrigation Repairs</td>
<td>10,000</td>
</tr>
<tr>
<td>Sub-Total, Utilities and Irrigation</td>
<td>$1,210,000</td>
</tr>
<tr>
<td>Final Grading, Greens, Tees, Bunker</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>$500,000</td>
</tr>
<tr>
<td>Cleaning/Trash Removal</td>
<td>10,000</td>
</tr>
<tr>
<td>Lake Construction (four lakes)</td>
<td>276,000</td>
</tr>
<tr>
<td>Lake Transfer Lines (pipe, fittings,</td>
<td>25,000</td>
</tr>
<tr>
<td>installation)</td>
<td></td>
</tr>
<tr>
<td>Cart Paths (4' wide, asphalt over gravel)</td>
<td>84,000</td>
</tr>
</tbody>
</table>
Table 3, Continued

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand Bunkers</td>
<td>40,000</td>
</tr>
<tr>
<td>Parking Lot</td>
<td>42,500</td>
</tr>
<tr>
<td>Drainage Systems</td>
<td>150,000</td>
</tr>
<tr>
<td>Sub-Total, Course and Land Improvements</td>
<td>$1,127,500</td>
</tr>
<tr>
<td>Seed (fairways &amp; greens)</td>
<td>$20,000</td>
</tr>
<tr>
<td>Fertilizer/Chemicals</td>
<td>94,000</td>
</tr>
<tr>
<td>Stolons (fairways &amp; tees)</td>
<td>117,500</td>
</tr>
<tr>
<td>Trees</td>
<td>200,000</td>
</tr>
<tr>
<td>Plants</td>
<td>40,000</td>
</tr>
<tr>
<td>Fumigation (dependent on greens design)</td>
<td>20,500</td>
</tr>
<tr>
<td>Greens Material (9,100 tons sand, 2,570 tons gravel)</td>
<td>127,000</td>
</tr>
<tr>
<td>Sub-Total, Ground Cover/Landscaping</td>
<td>$619,000</td>
</tr>
<tr>
<td>Labor (18 months' development)</td>
<td>$793,000</td>
</tr>
<tr>
<td>Equipment Rental &amp; Repair, Tools &amp; Supplies,</td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td>$90,000</td>
</tr>
<tr>
<td>Golf Course Accessories (flags, benches,</td>
<td>$25,000</td>
</tr>
<tr>
<td>ball-washers, tee markers, etc.)</td>
<td></td>
</tr>
<tr>
<td>Sub Total, Equipment</td>
<td>$115,000</td>
</tr>
<tr>
<td>Total Golf Course Costs</td>
<td>$4,180,500</td>
</tr>
</tbody>
</table>

Table 3, Continued

Kirby, personal communication, September 6, 1993). Constant review of the construction process can be significant in reducing overall costs (R. Kirby, personal communication, September 6, 1993). A cost-conscious developer may find that leasing rather than purchasing maintenance equipment is a helpful option (B. Blevins, personal communication, October 9, 1993).

Awareness is also needed of the amount of time, and expense without revenues, it will take for a course to grow in after construction (Doak, 1992). Legal fees as part of expenses for an actual project are estimated at between $40,000 and $50,000 (B. Blevins, personal communication, October 9, 1993). R. Kirby (personal communication, September 6, 1993) said developers should plan on legal fees equalling two percent of the cost of construction.

**Tax-Related Issues**

The would-be developer may have concerns about the tax burden on the property once the course has been developed. Land valuations for tracts used as golf courses will increase. However, golf courses are usually under-assessed for tax purposes in relation to their earning power (J. Watts, personal communication, October 12, 1993). Taxation rates for golf courses, as with other properties, will vary widely from location to location based on a percentage of their assessed value (J. Watts, personal communication,
October 12, 1993). If an accurate assessment is critical, it was suggested that commissioning a commercial fee appraiser might be a worthwhile investment (B. Cottner, personal communication, October 12, 1993).

In a sample tax assessor's office, it was explained how the tax rate on a given tract is adjusted in stages, as the process from raw land to completed facility evolves (B. Cottner, personal communication, October 12, 1993). It was also determined that tax rates on a property will be reduced depending on a variety of irregularities that a tract may possess (R. Corbin, personal communication, October 13, 1993). Finally, it was noted that unless a property is currently zoned residential (R), there would be no need for an application for a zoning change or variance (R. Corbin, personal communication, October 13, 1993).

**Summary**

Nearly 80 percent, or 19.7 million, of golfers in this country play predominantly on public golf facilities. Yet the development of courses open to the public has not kept up with increasing demand. For the would-be course developer, sources are pointed out that will aid him/her in determining whether a given market area will support a new facility. Others point out the extreme dangers of under-capitalization. Methods of raising investment capital are discussed. Sources of information on the most important
factors in selecting an ideal site, or as close as possible to an ideal site, are provided.

Citations regarding costs of construction, possible impact of environmental regulation on course development, architectural fees, and legal fees are listed. Finally, personal communications are listed regarding tax-related concerns in golf course development.
CHAPTER 3
Methodology

Introduction

The intent of this chapter is to explain the methods used to gather information on economic considerations that impact public golf course development. These methods included a literature search, personal and telephone interviews with professionals in various areas of golf course development, and surveys to professionals in various areas of golf course development.

Procedures

Following is a description of the methods used to gather information on public golf course development. Methods used were a literature search, personal and telephone interviews, and surveys.

Literature Search. This work began with extensive literature search for current information on golf course development-related topics. Early sources included newspaper articles, articles appearing in non-golf-specific journals, various golf industry publications, and books devoted to golf course architecture. Later, as the project took shape, other written sources were utilized such as demographic information obtained from independent research companies; sample financial information on existing courses through
commercial lenders; and information available through a local county tax assessor's office.

As more was learned about the subject, it became apparent that a number of significant subject areas existed that had not been considered at the start of the project. Questions needed to be addressed and suggestions made in each of the following areas:

- Where golf courses are needed in the U.S. in terms of general Metropolitan Statistical Areas (MSAs)
- Information to help determine what sub-area(s) within a given MSA would best support new courses (and which would not)
- Costs of obtaining research information on golf course viability in any given area
- Characteristics of a desirable golf course site
- Pricing of land that would be acceptable within the entire economic scope of the project
- Advice on raising capital for a golf course project
- Current state of financing opportunities and the financial requirements the developer must meet
- Current information from course architects and building contractors on fees for services
- Steps in the permitting/construction process and anticipated time needed for construction
Information on taxation of golf courses
Discovering alternative ideas and recommendations for consideration in the development of future courses.

Some of these topics could be addressed meaningfully via information obtained through literature search, but others could not. Therefore, it was imperative to obtain information via other methods.

Personal/Telephone Interviews. To obtain as up-to-date information as possible, personal interviews were arranged with professionals from as many facets of the golf course development industry as possible. Since the author at this time was located in the Atlanta, Georgia area, it was feasible to obtain personal interviews only with those professionals within a reasonable distance of Atlanta. These efforts resulted in personal interviews with two golf course architects, three golf course developers, one golf course management executive, and one commercial lender to golf course projects (with whom multiple conversations occurred). Two other interviews were conducted by telephone: one with a commercial lender, and one with a commercial appraiser specializing in golf course valuation.

For each of these interviews, a specific question list (Appendix D) was compiled that focused on each individual's area of concentration within golf course development, be it
course design, financing, valuation, or project development. In all cases, the interviewee was invited to also contribute more general observations regarding course development.

**Surveys.** Time and logistics precluded sufficient personal interviews to gather the necessary data. Therefore surveys were developed to gather additional information on some of the major expense areas in course development. In addition, any further information that could be obtained from developers of recently-completed or still-in-progress courses was sought.

Three survey questionnaires were designed and mailed. The first questionnaire (Appendix E) was directed to currently-active golf course architects. Since it was determined that the project would include multiple surveys, and that the cost of large-scale surveys would be prohibitive, it was decided to limit this survey to 25 current golf course architects, whose names were acquired from the American Society of Golf course Architects (American Society of Golf Course Architects, 1993). It was decided to limit this selection of architects, as well as course construction companies, to 25 located in the mid-Atlantic and southeastern states. Also, the author admits to a "bias" in the selection of architects in that no high-profile course architects were mailed a survey. The reason is the author's personal knowledge that these "name"
architects are usually hired to design more upscale, high-profile, large-budget resort and private courses. Selecting them could provide misleading information as to the architectural costs of public course facilities.

Each architect was sent a cover letter explaining the reason for the request, a one-page survey, and a stamped, self-addressed envelope. The survey to architects focused on determining the fee or fee range of the architect for recently-designed or in-design courses and the payment structure for those fees.

A second survey was directed to golf course construction companies. Again, 25 companies were selected, from a list published by the Golf Course Builders of America (Golf Course Builders of America, 1993). In this case, only 19 builders listed were based in the mid-Atlantic or southeastern states, so six other builders from Texas (5) and Massachusetts (1) were included.

Again, this respondent group was mailed a cover letter, questionnaire, and stamped, self-addressed envelope. This survey (Appendix F) sought to determine the range of costs for construction of recently-built courses as well as average construction costs; any noticeable difference in construction costs for private or resort courses as opposed to public facilities; and compensation schedules, among other questions.
A third questionnaire was mailed to owners/developers of nine courses in the Atlanta, Georgia metropolitan statistical area that have either recently opened or are currently under construction (National Golf Foundation, 1993c). This questionnaire, mailed with letter and stamped, self-addressed envelope, focused on information such as site selection process, cost of site, use of feasibility studies, construction cost, and total cost of project (Appendix G).

This project used existing data obtained through a large-scale survey of commercial lenders conducted by Textron Financial Corporation, Atlanta, GA (Appendix H). This survey attempted to determine, on a nationwide basis, lenders who were lending to, or would consider lending to, privately-developed golf course projects. This entire mailing consisted of some 171 questionnaires to commercial lenders. In the interest of keeping the project within manageable bounds, the responses of those who had provided or would consider providing financing for golf course projects is limited to the southeastern U.S. region. From this region only, 16 usable responses were obtained. Some of the questions asked did not pertain directly to this project. Questions 2, 4, 10, 12, 18, 20, and 21, which covered the number of golf course loans made, maximum loan amount considered, maximum loan-to-value guidelines for this
type of project, and setup of the loan package, shed useful light on current economic requirements.

The procedure used in reporting the results of the various types of research described, was to discuss the key areas of course development in a logical, sequential order. As these sub-topics unfold, information obtained on each is reported based upon all contributing sources—the literature, personal and telephone interviews, and information from various surveys. Once all these areas are discussed, conclusions are drawn and recommendations, as well as suggested areas for future research, are provided.

Summary

The information in this chapter explains the steps taken to gather information on economic factors in public golf course development. A literature search of newspapers, magazines, journals, golf industry publications, and golf architecture books and reports was undertaken. Information on the use of demographic information for golf course feasibility analysis was obtained from industry publications as well as an independent research company. Personal and telephone interviews with commercial lenders, developers, golf course architects, and tax assessors were obtained. Additional information on areas affecting costs of development were obtained through surveys to architects and building contractors.
CHAPTER 4

Results

Introduction

The public course developer must determine where public golf facilities are most needed. Methods of obtaining this information are discussed. Ways to determine customized golfer demographic information are provided. The validity of golfer "participation rates" is argued. Dangers of under-capitalization and the need for a sound business plan to attract investors are covered. Information is provided from a survey of commercial lenders to golf facilities. Industry sources suggest limits to what can be spent on site acquisition, and also discuss preferred site size and physical characteristics. Time requirements for permitting and construction as well as information on construction costs are examined. Tax issues related to golf course development and ownership are reviewed.

Demand Findings

In 1992, 19.7 million golfers, or 79.5 percent of the U.S. golfing population, reported that they played the majority of their golf rounds on courses open to the public (National Golf Foundation, 1993b). When it's observed that only 64.5 percent of all regulation-length, 18-hole courses are open to the public (National Golf Foundation, 1993a), it's apparent that there's an imbalance in supply and a need
for more public golf courses. This is particularly true in and around the high-population areas in this country:

'You want to play, you fight the crowd,' says Malcolm McEwen, a 67-year-old New Jersey retiree. His Saturday regimen brings him to Tamarack at 3:30 A.M. He then waits more than two hours to tee off (Lueck, 1990).

Despite golfers' willingness to relinquish their sleep, there appear to be saner limits on how far golfers will travel to play their rounds. Studies have shown that most golfers will travel between 10 and 30 miles to play a golf course regularly (National Golf Foundation, 1989). And, in many metro areas there aren't enough courses within that radius to satisfy the demand of the area's golfing population. One expert cited the reason for the growing shortage:

In the suburbs of most mature cities, there's a great need for more courses--but land at the right price is simply not available. Conversely, where you can get available, affordable land, you don't need the courses. (D. Rhodes, personal communication, November 23, 1993).

A large part of the successful economic planning of a new course entails keen understanding of golf markets where a course is being considered. Despite the general need for more courses, those poorly located in relation to golf
market demand have shown a high failure rate, particularly during the late 1980s (Rudnitsky & Koselka, 1990).

In any given area, a population of between 20,000 and 30,000 should be in place in order to support an 18-hole golf facility (American Institute of Real Estate Appraisers, cited in Piper, 1990). Where golf is a favored recreation, as in resort or retirement communities, as few as 10,000 may prove an adequate figure (American Institute of Real Estate Appraisers, cited in Piper, 1990). These general guidelines, however, do not take into account a number of factors which deserve discussion here.

Any would-be developer's first step is to decide on the general area in which the course will be located. A useful starting point is the National Golf Foundation's *Golf Facilities in the U.S.*, which is updated and published annually (Cost: $175). This report includes a ranking of 321 Metropolitan Statistical Areas (MSA's) by the number of people for each public golf hole in the given MSA. The more public golf holes there are in relationship to the MSA's population, the higher that MSA will rank in public golf accessibility. For example, Akron, OH, with one public golf hole per 1,171 people, ranks 56th out of 321 MSAs for public golf accessibility. Atlanta, GA, with one public golf hole per 3,528 people, ranks 267th (National Golf Foundation, 1993a).
A low ranking in accessibility suggests that the given MSA can support additional public courses. However, this is a rough starting point. It indicates the developer is more likely to find viable sites in the low-ranking MSA areas than in high-ranked ones. But it was pointed out (D. Rhodes, personal communication, November 23, 1993) that it's not enough to plan a course within an MSA that needs courses; there are specific sections of any MSA area which will or will not support additional courses.

It was recommended that the developer utilize as many sources as possible to determine whether an area that offers one or more possible course sites is indeed an economically viable area. One that requires no expense, but perhaps some simple detective work, is to determine the number of rounds currently being played at the courses nearest the area you are considering. For example, the median number of rounds played at public daily-fee courses in 1992 was estimated at 35,000 (National Golf Foundation, personal communication, November 24, 1993). D. Rhodes (personal communication, November 23, 1993) stated that if you find all nearby courses host a higher number of rounds annually, the outlook for a new course in that area is bright. The general manager at a currently-under-construction course in suburban Atlanta reported that annual round counts at two recently-opened public courses were convincing enough that further, more
formal studies were unwarranted (B. Blevins, personal communication, October 9, 1993).

For an enterprise of this magnitude, the potential developer is advised to take further steps unless the already-obtained evidence is overwhelming. Gimmy & Benson (1992) recommended the use, though costly and time-consuming, of questionnaires, personal interviews, and focus studies to determine golfer satisfaction with current facilities and their interest in supporting a new one.

Hirsh (1991) described a formula for golf course demand analysis that requires demographic information as well as information on the number of rounds played at existing area courses. Based on an area's population, its mean household income, the percentage of population that plays golf, and the number of rounds the average golfer plays, the potential developer can determine how many, if any, new courses are needed (Table 1, found in Chapter 2).

As the developer is determining that an area he/she has in mind for a course is indeed promising, another precaution must be taken. It's possible someone else has conducted the same research and is already in the planning stages for a new course. To find out if this is the case, the developer should contact the National Golf Foundation, located in Jupiter, FL. For minimal cost, they will provide a listing
of all courses in planning or under construction for any metropolitan statistical area.

The developer should utilize some or all of the above mentioned ways to calculate course demand. It will improve his or her chances of focusing only on areas in which a new facility will prove successful.

Golfer Demographics

To a great degree, demand for golf courses and the demographics of public course golfers in any given market area are intertwined. The would-be developer must investigate and understand the demographics of public course golfers as well as the characteristics of those in the market being studied. The more similar these are, the more support there is likely to be for a new facility.

Up-to-date demographic information on public course golfers in a given area can be obtained in several ways. The National Golf Foundation can supply interested parties with a "Customized Data Analysis" of golfers in any U.S. Metropolitan Statistical area in the country. The data, which costs $100 in most cases, includes information on the number of golfers, average age, average income, and average number of rounds played. (J. Anderson, personal communication, November 24, 1993). These localized figures can then be compared against national public golfer demographics available in the National Golf Foundation's
Golf Participation in the U.S., which is updated and published annually. Cost of this source is $175.

There are other ways to learn about the demographics of a given marketplace. For example, an Arlington, VA based firm, CACI Marketing Systems, offers complete demographic information for any geographic area of the buyer's choosing, providing 1990, 1993, and forecasted 1998 figures (CACI Marketing Systems, 1993). These reports start at a cost of $99.

It may be possible to obtain demographic information for the area of interest free of charge. For example, in Atlanta, The Georgia Power Company supports an Economic Development Department which provides full demographic information to individuals pursuing various commercial projects. From any given point, such as a potential course site, the surrounding demographics may be supplied for three concentric circles of any size requested, up to a maximum radius of 99 miles (W. Adams, personal communication, November 30, 1993). It was noted, however, that not all state utilities companies are advanced enough to provide detailed demographic information (W. Adams, personal communication, November 30, 1993).

For any state in the U.S., statistics are available on golfer participation rates. This term refers to that percentage of the general population that are defined as
"golfers" (National Golf Foundation, 1993b). Surprisingly, 23 of the 25 states with the highest participation rates are "cold weather" states (National Golf Foundation, 1993b):

Golfers are everywhere and they are not deterred by climactic conditions. Some of the highest participation rates are in frostbelt states with the shortest playing seasons and some of the lowest are in Sunbelt states (Gimmy & Benson, 1992).

The developer who assumes that states and/or MSAs with high participation rates would be the best areas to build a course, may benefit from the following argument:

The National Golf Foundation state participation rates claim...that 20 percent of Wisconsin residents play golf, while only 8.5 percent of Georgia residents do. I believe this is because there are many more courses in relation to the population in Wisconsin than in Georgia. The average Wisconsin resident is not inherently more than twice as likely to play golf as the average Georgian (D. Rhodes, personal communication, November 23, 1993).

The above argument implies that golfers will tend to play more golf if more golf courses are available, no matter what the location. By extension, it suggests that states with low participation rates, which tend to have fewer courses to serve the area golfing population, may prove a
better bet for future development. This example may also serve as a useful warning to the potential developer that no one demographic, or other, statistic should unduly influence the decision on where to locate a new course. It is a total package of information, and the developer who uses all possible sources to gain information is likely to be rewarded.

The various ways a developer might interpret information also suggests that, instead of gathering data through methods described, the new developer should invest in a project feasibility study conducted by a professional appraisal firm. J. Watts (personal communication, November 12, 1993) said in most cases, a course feasibility study is likely to cost $10,000 or more. However, there may be benefits beyond the project overview itself. The fact that a professional study has been contracted can help the developer obtain whatever financing he/she is seeking. This assumes that the study indicates that the project should succeed; if it warns the developer of likely failure of the project, its value may be even greater. Also, it was pointed out that in many cases the lender will require a feasibility study before granting the loan (J. Watts, personal communication, November 12, 1993).
Capital Development Findings

Any would-be developer of a public golf facility should be aware that he/she is embarking on an enterprise far more complex, time-consuming, capital-intensive, and risky than the start-up of many other types of businesses. While development cost issues will be covered in a later section, it should be apparent to the developer that a total investment of several million dollars will be required, no matter how carefully each step in the process is planned. In fact, as seen from previous comments on the analysis of golf course demand and demographics, the "up front" information-gathering costs are likely to be greater for the best-prepared course developer.

A course architect said that stand-alone golf operations, be they public or private, are at best a dangerous enterprise:

Unless you've been in the business a long time and know exactly what you're doing, a golf course is probably the worst investment you could make. You'll probably do a lot better just by putting your money in C.D.s (R. Roquemore, personal communication, August 19, 1993).

The same source pointed out that if a daily-fee course has been built with little or no debt service, it's relatively easy to operate at a profit (R. Roquemore,
personal communication, August 19, 1993). However, since most developments are highly leveraged and face substantial monthly principal and interest charges, profitability is hard to come by, particularly in the crucial early stages.

An example of this struggle is an anonymous public course which opened for play in the spring of 1991. A written report on the course by its lending institution stated that the course was designed by a reputable architectural firm and its design is "excellent for a public course" (Textron Financial Corp., 1993). Though the owner invested the majority of the development capital, additional financing of $1.5 million was required.

A historical cash flow summary of the project from opening in May 1991 through October 1993, is shown in Table 2, which is found in Chapter 2. In addition to all operating expenses, debt service totalled $177,500 for 1992, and was $162,694 through ten months of 1993. Although the course's bottom line has been improving, debt service payments have contributed heavily to the losses incurred in the first three years of operation. The reader should be aware that many public facilities must carry an even heavier debt service than that shown here.

Still, during the past decade in particular, numerous investment groups have been willing to invest the capital
needed for new course developments. According to one industry source,

In the 1980s, the National Golf Foundation basically came out and said, 'If you build it, they will come.' And that helped people to buy into the 'romance factor' of developing a golf course. Today, even though the economics are proving a tremendous challenge, people will continue to invest in golf courses. The 'romance factor' will always work in your favor (W. Crouse, personal communication, November 7, 1993).

It is assumed that individuals seriously considering developing a course possess a great deal of equity. However, there are very few people in a "do it all yourself" position. Partnerships may need to be sought prior to approaching a lending institution for additional financing. The best advice that can be given in this regard is, once the budding developer has decided to begin this enterprise, he/she must not hesitate to make people aware of it:

Most development money is raised through personal connections. Networking is the key. You need a core group that goes to everyone they know and tells them about their plan to build a new golf course. If you have developed a reasonable business plan for the project with some realistic capital outlay and cash flow figures, you'd be surprised how many people will
listen to you and possibly invest (W. Crouse, personal communication, November 7, 1993).

In addition to networking with fellow golf enthusiasts and their ensuing contacts, Wickens (1990) reported that many would-be developers are publicly offering equity ownership in golf courses to business investors. In most cases the investor may retain his/her share of ownership indefinitely, or sell it after a stated time period to another investor (Wickens, 1990).

It was recommended that if the developer is seeking a broad base of investors, it's worth the investment to develop a course proposal and business plan with a local investment firm (National Golf Foundation, 1989). "This could lead to preparation of a formal prospectus to sell stock locally or regionally" (National Golf Foundation, 1993, p. 30).

Although the developer has been warned about the danger of heavy debt service, for individuals or groups that have gathered less than perhaps $4 million, the reality is that most individuals or groups will require some financing. It's often hard to come by. According to one major lender in the Atlanta area, "We may get about 25 requests per year to finance a course, and probably average about one golf course loan per year" (M. Gainer, personal communication, October 7, 1993).
The remainder of this section relates findings from a recent nationwide survey to commercial lenders, regarding financing to golf course developers. The survey, sponsored by Textron Financial Corporation, Atlanta, GA, was sent to selected commercial lenders in order to analyze lending being done to golf course developments, as well as the terms and requirements of these lending institutions. The survey, which admittedly could not possibly identify all recent lenders to golf course projects, resulted in usable information from 16 such respondents. This information is summarized in Table 4.

From the seven questions/responses included in Table 4, perhaps most significant was the fact that nine of 16 respondents, or 56.3%, said they would only finance already-existing golf developments. It should also be noted that in response to one other open-ended question not summarized in Table 4, nearly all respondents required some expertise in golf course development and/or operations. These responses ranged from "some business experience" up to "7-10 years in golf course operation and a successful course development track record."

Again, the information here is a sampling of what is required in the lending marketplace. It does not take into account developers with strong equity to invest, who have a long-term relationship with a local commercial lender.
Table 4
Responses to Surveys by Commercial Lenders to Golf Projects

1. Number of courses financed by lender since 1990:

<table>
<thead>
<tr>
<th></th>
<th>1-2</th>
<th>3-4</th>
<th>5-6</th>
<th>7-8</th>
<th>9-10</th>
<th>11-20</th>
<th>&gt;20</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Number of lenders who finance new course projects versus refinance of existing courses only:

<table>
<thead>
<tr>
<th></th>
<th>Existing Only</th>
<th>Both Existing &amp; New</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

3. Geographic Limits on Lending to Golf Courses:

<table>
<thead>
<tr>
<th></th>
<th>Bank's Market Area Only</th>
<th>100 Mile Radius</th>
<th>Multi-State Area</th>
<th>Entire U.S.</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

4. Minimum amount of equity required of any developer:

<table>
<thead>
<tr>
<th></th>
<th>Less than 20%</th>
<th>20-29%</th>
<th>30-39%</th>
<th>40-49%</th>
<th>&gt;50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>5*</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

*One respondent required working capital in addition to equity.
Table 4, Continued

5. Rating of importance of various factors in determining loan qualification (1-10 basis with 1 being lowest, 10 highest)

<table>
<thead>
<tr>
<th>Management Strength</th>
<th>Cash Flow</th>
<th>Competition in Area</th>
<th>Barriers to Entry</th>
<th>Pricing on Loan</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.21</td>
<td>9.36</td>
<td>7.64</td>
<td>5.64</td>
<td>5.40</td>
</tr>
</tbody>
</table>

6. Financing handled through a single loan or a series:

<table>
<thead>
<tr>
<th>Single</th>
<th>Series</th>
<th>Varies</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

7. Most often-mentioned documentation required during loan qualifying process:

<table>
<thead>
<tr>
<th>Phase I Environmental Appraisal</th>
<th>Site Survey</th>
<th>Engineering Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Title Search</td>
<td>Financial Statements</td>
<td>Market Feasibility Study</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>
Site Selection/Acquisition

There is no set rule as to how much a developer should be willing to pay for a given site. D. Rhodes (personal communication, September 1, 1993) stated there are virtually no circumstances in which a developer should invest more than $5,000 per acre for a course site. According to the National Golf Foundation (1989),

The economics of public golf courses suggest that in some markets, one might be able to support a project with an investment of $4,000 to $8,000 an acre...In certain extremely strong markets, this figure might possibly go higher (p. 11).

A sticking point is that within the MSAs that most need public course development, for example, Washington D.C., Baltimore, and metropolitan New York, there may be no land left within these cost limits. Other options in such cases might be to lease a site from a municipality or from a real estate developer. An ideal situation is to obtain a course-sized parcel from a land developer for whom the addition of a golf course will bring added value to the rest of the development. Other creative possibilities exist. The president of a golf development/management firm explained how his company acquired a substantial and desirable parcel in Florida from a private owner. In return, the company is
developing roadways through the property, which will increase the value of the rest of the property (M. Abell, personal communication, January 12, 1994).

As a general rule, the land requirement for a regulation-length 18-hole facility, including clubhouse, practice areas, and parking, is 150 acres. One source (Anonymous, 1991) suggested a range of between 130 and 180 acres is reasonable. Another said, "150 acres is a little tight. With medium terrain (neither completely flat or severely sloping), 165-170 acres would be preferable" (R. Kirby, personal communication, September 6, 1993).

Given the fact that assembling and paying for suitable land parcels is the greatest challenge in the development process, it is agreed by some sources that fitting courses into slightly smaller acreage may be necessary in the future (W. Crouse, personal communication, November 7, 1993; D. Rhodes, personal communication; November 23, 1993). Such a concession could save untold amounts in land costs, and would also reduce construction costs since fewer acres would be developed.

There are examples of courses that have thrived despite being limited to less-than-ideal acreage. One example from the author's personal observation is a private course, Mill River CC, Stratford, CT. Though "shoehorned" into only 100 acres, the course has operated continuously since the
Depression era. It handled some 25,000 rounds in 1993. Meanwhile, the public Virginia Tech Golf Course, Blacksburg, VA, occupies only 120 acres and is, in the author's opinion, an unimpressive layout. Yet it has been one of the most-played courses in western Virginia, hosting an average of 42,000 rounds per year (L. Smith, personal communication, January 14, 1994).

A different tactic in reducing total site acquisition costs, albeit on a long-term basis, is as follows:

If you need 150 acres for a course, wise investors should try to obtain much more--300 to 400 acres, if at all possible. They should do that with a plan to hold onto all the land so that the remaining acreage can be sold later at a substantial profit.

When you build a golf course, the contiguous land surrounding it will typically increase two to four times in value. In rural areas where land is inexpensive, the extra land may go up much more than that. If the land is expensive to start with, it will still usually double in value (R. Roquemore, personal communication, August 19, 1993).

The potential developer financially capable of taking this approach may eventually get more back for the "leftover" land than the original cost of the entire
parcel. However, the up-front investment and carrying costs during development will be higher in the meantime.

Course architects prefer to work with a tract that offers good drainage. "In most cases construction of golf courses in low areas will be more expensive than construction in well-drained areas on higher ground" (Jones & Rando, 1974). However, it was noted that the additional construction costs at low-lying sites will probably be more than made up for, by the fact that low-lying tracts will come much more cheaply since fewer commercial uses are possible on them:

It is obviously preferable to use land for golf which would otherwise be unusable or prohibitively expensive for building units. Areas such as large runoff channels, flood plains, marshes, bogs, and other generally low areas can, if properly drained and/or controlled, be utilized to create both fine and beautiful golf courses (Jones & Rando, 1974, p. 49).

Another consideration is whether the site is heavily forested, wide open, or partially vegetated. While this might seem purely an aesthetic consideration, it becomes an economic one as well. Jones and Rando (1974) pointed out that a treed layout "takes on an immediate feeling of maturity and age" (p. 48), as well as defining the holes for the player. They also stated that although clearing forested
land is costly, the developer may find the cost will be substantially reduced if the trees can be sold for lumber/paper. However, another architect preferred open sites to heavily wooded ones (R. Kirby, personal communication, September 6, 1993). He pointed out that open fairways can be made to look very attractive while also encouraging faster play. Also, assuming that timber on a given site is not saleable, a forested course becomes much more expensive to develop. "Clearing through dense woods can cost as much as $3,000 per acre; if another property has natural clearings amenable to golf course routing, the savings might outweigh a higher per-acre land cost" (Doak, 1992, p. 19). Since a fully-forested site would require clearing of approximately 100 acres for the 18 golf holes (R. Kirby, personal communication, September 6, 1993), the forested site might call for some $300,000 in added construction costs.

More significant than the quality of the site for a golf course is its accessibility. "If you were building a private golf course, the quality of the land and its setting become more significant. But for a public course, you must go for the best available access every time" (R. Kirby, personal communication, September 6, 1993).

To this, W. Crouse (personal communication, November 7, 1993) added, "Give me a bad golf course in a good location
over a fine golf course in a questionable location." He cited two municipal golf courses within the Atlanta city limits and said, "They handle between 75,000 and 80,000 rounds per year, yet not many people seem to like these courses!" Note: The golf round figures mentioned above are roughly double the average of municipal courses nationwide.

Multiple limiting factors have been discussed regarding where a public course might be sited. These include golfer demand, area demographics, tract size, positive physical characteristics, and cost of acreage. The reader might wonder if there is another limitation in the form of a minimum distance a site should be located from any competing facilities. Thankfully, according to one source, there is not. "If all the other factors, particularly an adequate population base, are right, you could build your course right next to another one" (R. Kirby, personal communication, September 5, 1993).

Construction Topic Findings

The developer may have a concept of the flow of events once construction actually starts. However, the time involved in the permitting process between site acquisition and actual construction, during which a site analysis is performed, environmental and construction regulations are reviewed, regulatory agencies are met prior to submitting of master plans, and required approvals are obtained, is likely
to be longer and more frustrating than expected. "You should figure on the total permitting process prior to construction taking one year--it's never less than six months" (R. Kirby, personal communication, September 6, 1993). This is particularly important to the developer planning a course in colder climates. If, for example, the developer who assumes permitting will be completed and construction will begin in April, finds that permitting delays disallow construction until October, he/she will be delayed further by weather limitations.

Environmental preservation issues are becoming a larger issue in golf course development. While this is not the place for a full review, the developer should obtain the booklet, "An Environmental Approach to Golf Course Development," for a glimpse at the types of issues that often arise (Love, 1992).

The amount of time to be planned for construction will also vary depending upon region and climate:

You should figure on between seven and eight months of actual construction days on any given site, based on six work days per week. In Florida, this will translate to a total of about 12 months. In Georgia, total construction time will be 18-24 months, and in the northeast or north central U.S., construction
time usually reaches two years (R. Kirby, personal communication, September 6, 1993).

Gimmy & Benson (1992) pointed out that the number of strokes the golfer takes has an effect on the amount of time it takes to play the round. The faster rounds are played at any course, the more golfers can play it on any given day. Thus higher revenues result. The cost-conscious developer should keep this fact in mind when working with an architect on layout plans. A useful checklist of the complete development/construction process (Appendix C) for a golf project are available to the course developer (Love, 1992).

Construction Cost Findings

Table 3, found in Chapter 2, shows a sample line-by-line summary of the total cost of construction and preparation of an 18-hole facility (Gimmy & Benson, 1992). These figures do not include the cost of land, for which in some cases there will be none, or the cost of a clubhouse. The clubhouse cost can also vary widely, the minimum up-front cost being the rental of a double-wide trailer, with permanent construction coming at a later date. This estimate does include all architects' and consultants' fees, or the cost of equipment for the golf course, which is usually not figured into the cost of construction.

The estimate is included to inform the prospective developer of the various cost items, rather than to suggest
that the total cost of over $4 million is what he/she must expect. In fact, in order for a public course to be profitable, sources said, hard construction costs must be substantially lower. One architect estimated that actual construction costs, not counting architect's fees, need to be held to approximately $2 million (R. Kirby, personal communication, September 6, 1993). Another said:

On an ideal site, you can still construct 18 holes for between $1 million and $1.5 million. On a relatively difficult site, you can do it for $2 million to $2.5 million. A very difficult site will cost between $3 million and $4 million for construction only (R. Roquemore, personal communication, August 19, 1993).

Obviously, the developer will attempt to pare his/her bottom line as compared to that in Table 3. One possibility would be to install a less costly irrigation system than the three-parallel-line, $960,000 system included in this example. Another might be to reduce $276,000 allotted for construction of four lakes.

For purposes of this project it appeared worthwhile to take the step of surveying course building contractors to determine what construction costs have been for recently-built courses. So, a survey was developed and mailed to 25 course contractors whose names were obtained from the Golf
Course Builders of America. Included was a cover letter, questionnaire, and stamped, self-addressed envelope (Appendix F).

It was anticipated that response from golf course builders, who spend much of their time in the field, might be low and/or slow. The first mailing yielded four responses. A second letter, questionnaire, and stamped, self-addressed envelope were mailed four weeks later to the 21 contractors who had not responded. This time six questionnaires were returned, bringing the total to 10 with a response rate of 40.0%. A summary of these responses is shown in Table 5.

A key survey question is Question 3. The respondents' average cost of construction was $2,300,000, not far above the $2,000,000 top line for a public course recommended by R. Kirby (personal communication, September 6, 1993).

Also, in Question 9, four of the 10 respondents said they would consider a payment method other than cash. This fact leaves the door open to the possibility of the developer reducing the total up-front investment.

Selecting, and paying for, the golf course architect is an area in which the literature showed wide discrepancies. For example, "An architect's fee might be as low as $100,000
Table 5
Survey Responses on Course Construction Costs

1. Number of regulation, 18-hole courses constructed since 1990:

<table>
<thead>
<tr>
<th></th>
<th>0-1</th>
<th>2-3</th>
<th>4-5</th>
<th>6-7</th>
<th>8-9</th>
<th>10 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Average of each builder's lowest cost of construction and average of each builder's highest cost of construction:

   Average Low: $1,713,000
   Average High: $3,740,000

3. Average cost for all regulation 18-hole courses constructed by each respondent (nine responses):

   $2,300,000

4. Degree of variation of construction costs from region to region in the U.S. (six responses):

   Northeast: Well above average
   West: Above average
   North Central: Slightly above average
   Southeast & South Central: Slightly below average
Table 5, Continued

5. Estimated increase in construction costs for private and resort courses vs. public courses (8 responses):

<table>
<thead>
<tr>
<th>No Increase</th>
<th>$200K-$400K</th>
<th>$500K-$700K</th>
<th>$800K-$1 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

6. Recommended amount of time needed for course to grow in:

<table>
<thead>
<tr>
<th>&lt;3 Months</th>
<th>3-5 Months</th>
<th>6-8 Months</th>
<th>9-12 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

7. Average cost of maintaining course during grow-in period, (using midpoints of individual responses if a range was given in the response): $274,444

8. Average recommended amount of time for course to grow in: 7.17 months

9. Number of contractors who have accepted or would consider accepting a form of payment other than cash (such as partial ownership of the course):

<table>
<thead>
<tr>
<th>Would Consider</th>
<th>Would Not Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>
or it might be $1,000,000. Perhaps $200,000 to $500,000 plus expenses would be a reasonable figure to work with" (National Golf Foundation, 1989, p. 27). On the other hand, in Table 3 the estimated architect's fee was $175,000. Based on these uncertain estimates, it was decided that a survey of architectural fees would be worthwhile. The results of this survey of 25 architects, of whom 11 (44%) responded, are shown in Table 6. Question 5 in this table shows median and mean fees for respondents on all courses designed since 1990. These mean and median fees, discounting one very high fee causing an "outlier" effect, were slightly under the $200,000 mark.

R. Kirby (personal communication, September 6, 1993) stated developers would be wise to contract separate architects and construction firms, rather than a single organization that does both; independent bidding on each contract can result in substantial savings. In addition, "The developer should stay constantly involved with both design and construction. For example, there are times when a slight tee relocation will save up to 30,000 cubic yards of earth movement" (R. Kirby, personal communication, September 6, 1993).

With regard to course equipment, B. Blevins (personal communication, October 9, 1993) said, "Leasing major maintenance machinery as well as golf carts will go a long
Table 6

Responses to Survey on Golf Architectural Fees

1. Architects who charge a set fee for design of an 18-hole course, versus a fee within a range

<table>
<thead>
<tr>
<th>Set Fee</th>
<th>Fee Within Range</th>
<th>Either or Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Fee range for those who charge a set fee:

<table>
<thead>
<tr>
<th>N/A</th>
<th>Under $100,000</th>
<th>$100,000-$250,000</th>
<th>$250,000-$500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

3. Fee ranges for those who charge within a set range, for all courses designed since 1990:

<table>
<thead>
<tr>
<th>N/A</th>
<th>Up to $150,000</th>
<th>$150,000-$300,000</th>
<th>$300,000-$500,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>&gt;$500,000</th>
<th>% of Construction Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 (average = 8%)</td>
</tr>
</tbody>
</table>

4. Number of architects asked to accept payment other than cash:

<table>
<thead>
<tr>
<th>Have Been Asked</th>
<th>Have Not Been Asked</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 6, Continued

5. Number asked who have accepted alternate payment forms:

<table>
<thead>
<tr>
<th>Have Accepted On Occasion</th>
<th>Have Not Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Summary of Fees (nine respondents)*:

<table>
<thead>
<tr>
<th></th>
<th>Avg. Low End</th>
<th>Avg. High End</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Outlier</td>
<td>$202,143</td>
<td>$339,286</td>
<td>$270,714</td>
<td>$200,000</td>
</tr>
<tr>
<td>W/O Outlier</td>
<td>$152,500</td>
<td>$229,167</td>
<td>$190,834</td>
<td>$197,500</td>
</tr>
</tbody>
</table>

*Note: One of the 11 respondents quoted markedly higher fees than any other architect, thus causing an "outlier" effect on the summary data. It could be that the summary of fees without the outlier will be more realistic for the public course developer.
way toward keeping front-end costs down." Blevins' project, Towne Lake, located in Woodstock, GA, leases its equipment on a three-year basis.

A particularly thorny period for developers is the course grow-in period--when the course is in effect lying "vacant" with no revenue coming in. According to one architect,

This item is often entirely omitted from a construction budget, because it is not part of the contractor's responsibility or his contract price--an omission capable of bankrupting a project before it's completed (Doak, 1992, p. 202).

As is shown in Table 5, respondents to the survey on course construction recommended a grow-in time averaging over seven months. Their estimated cost for maintenance during grow-in was nearly $275,000. While many courses open with a shorter-than-recommended grow-in time, the wise developer should plan course maturation with these figures in mind.

Surprisingly, legal fees were judged a relatively minor segment of the entire investment. B. Blevins (personal communication, October 9, 1993) estimated the legal fees at Towne Lake, Woodstock, GA, as totaling between $40,000 and $50,000. R. Kirby (personal communication, September 6,
1993) recommended that the developer allot two percent of total construction costs toward legal fees.

**Tax Related Issues**

The developer acquiring a tract may wish to know what the tax burden on the property will be after the course has been developed. While it will obviously increase, a certified appraiser for Arthur Consulting Group, Atlanta, GA observed, "In most cases, golf courses are under-assessed in relation to their earning power--'sleeping dogs' as we call them" (J. Watts, personal communication, October 12, 1993). Golf courses, like other real estate properties, will be taxed based on a percentage of the assessed value. While a general rule of thumb is that property taxes run in the neighborhood of 1% of assessed value, Appraiser J. Watts said,

> Tax rates vary widely between regions. In some Alabama counties, it will be only 0.3 percent. In Cobb County, GA, the tax rate is 1.48 percent of assessed value. In the Cincinnati, Ohio area, it's 2.25 percent of value (personal communication, October 12, 1993).

As the course is developed, the taxation rate on the tract will be adjusted in stages. According to B. Cottner, a property appraiser in the Office of the Tax Assessor, Cobb County, GA,
The course builder does not have to inform the county of his/her intention. However, this type of development information always trickles down to us. In Cobb County, the assessor will wait until the course is at least 55% completed before a new tax assessment is made. The property tax will stay at this interim assessment level until after the entire development is completed (personal communication, October 12, 1993).

The developer may wish to obtain a more precise estimate of tax liabilities before starting the project. If so, commissioning a commercial fee appraiser might prove worthwhile (B. Cottner, personal communication, October 12, 1993).

In Cobb County, GA, tracts that are oddly shaped, feature difficult topography, or are on heavily-traveled roads, will be taxed at 20% less than the base rate. Tracts requiring easements are taxed at 30% off the base valuation. Finally and perhaps most significantly, property on a flood plain is taxed at only 10% of the total base rate (R. Corbin, personal communication, October 13, 1993). Also, unless the tract was previously zoned residential (R), an application for zoning change or variance would not be required (R. Corbin, personal communication, October 13, 1993).
Summary

The information in this chapter examined key factors that any individual or group hoping to develop a public golf course should be aware of, prior to committing to the enterprise. Multiple methods of determining if a given area and site warrant a new course were identified. Guidelines for golf course land investment, methods of obtaining land at less than "market" value, and characteristics of a desirable golf course site were reviewed. Capital-raising and commercial financing standards were presented, as well as anticipated cost ranges for course architects and course construction contractors. Steps in the permitting, construction and course maturation process were estimated both in terms of time and dollar investment. Other areas of expense such as legal fees and tax liabilities were investigated.
CHAPTER 5

Summary, Conclusions, and Recommendations

Introduction

The information obtained from the various sources in this study serves to prepare the potential developer for the investments in time, labor, and dollars that are likely to be required. This chapter will provide a summary of the procedures used, a list of concluding recommendations that the developer should keep in mind if he/she is to make a golf course enterprise successful, and two types of recommendations.

Summary

This project attempted to determine the key economic factors involved in the development of public golf course facilities. It was conducted through the study of existing literature, through interviews with professionals involved in the various facets of golf course financing and development, and through the use of surveys to golf course architects, builders, developers, and to commercial lenders.

Conclusions

Studying the topic of public course development is something of an eye-opening experience. One sees that beyond the sheer thrill of participating in such a project, there are myriad steps that must all be accomplished successfully.
If all the pieces of the puzzle cannot be fitted together, the project will fail.

Recommendations

1. Don't assume you can "make a course work" in the area/region that you prefer that a course be located. Go where your research tells you the best combination of market demand and land availability exists.

2. Know exactly how much capital you or your group will have available in advance of any negotiations for a site.

3. Speak to commercial lenders in your area. Present your expertise or that of members of your group in the area of golf course development and/or operations management. Obtain some idea which lender(s) might be willing to help finance a project, and how much they might be willing to lend.

4. Compute how much capital you are confident you have available. Make a careful estimate of all costs you are likely to incur in the research and development of the project. If you are not sure you have access to more capital than will be needed, wait until you do.

5. Be prepared to spend a substantial amount of research time, energy, and money in determining the desirability of any given location as a course site. Do not set a "time limit" on when you must obtain land and get
started by. Finding the best possible site is an absolute must.

6. Pursue every creative avenue to obtain land without major up-front investment. Try to determine what you or your group might be able to offer an owner in exchange for land.

7. Once you have located one or more promising sites, consider calling in a course architect to provide an opinion before you have made any commitment to purchase.

8. Consider either keeping acreage purchased to a minimum that an architect assures is workable. Or, try to obtain "extra" land and hold it for the appreciation that will occur as construction takes place.

9. Don't hesitate to contract with an architect who lacks "name value" if his ideas impress you. Seek to keep total design fees under $200,000.

10. Expect the process of obtaining permitting and meeting all environmental requirements to take one year prior to construction. Consider any lesser time taken before construction can begin to be a bonus.

11. Contract separately for the course architect and building contractors.

12. Inform the architect that you wish to be on site often, and that you will wish to stay aware of particulars of the construction process. Be aware that slight
adjustments in original plans can add up to large savings in construction costs. Be on the lookout for them.

13. Anticipate a course grow-in period of greater than six months, particularly if the course is located in a colder climate. Also, budget at least $275,000 for costs during this period.

14. Arrange for a long-term lease on all course maintenance equipment, as well as for golf carts, in order to reduce the total initial investment.

15. Consider rental of a temporary structure such as a double-wide trailer to serve as a clubhouse/pro shop/snack bar for the first year or two of operation.

16. Plan adequately for the cost of a permanent clubhouse, parking lot, lighting, furniture, and fixtures--costs other than the "hard costs" of building the course.

Recommendations for Further Study

The research on this project leads to the following suggestions for further study in golf development:

1. A questionnaire study to public course owners, to compare land values of course sites against the rounds played and gross revenues obtained at various courses.

2. A questionnaire study to public course owners, comparing costs of course development against net profits after a pre-determined number of years of operation.
3. Survey of public course golfers to determine what features they consider most, and least, important in selecting a course to play.
References


Appendix A

Permissions to Reprint

Nick Mastroni
3622 North Hampton Drive
Kennesaw, GA 30144-1171
(404) 590-0454

January 17, 1994

Mr. Paul Fullmer, Executive Secretary
American Association of Golf Course Architects
221 North LaSalle St.
Chicago, IL 60601

Dear Mr. Fullmer:

As was discussed by telephone today, I have requested and
received your permission to utilize certain materials
published by the ASGCA. This information will be utilized as
appendices to a terminal project for a Master's degree in
Sport Management from Virginia Polytechnic Institute and
State University, Blacksburg, VA. The title of this project
is, "Feasibility and Economic Analysis for Development of a
Public Golf Course Facility."

The material I will be citing comes from the publication,
"An Environmental Approach to Golf Course Development," by
William R. Love, Chairman, Environmental Committee, ASGCA. I
will be reprinting the untitled sidebar that appears on page 6, in which common environmental considerations during the
course construction process are addressed. Also, I plan to
reprint the "Checklist for the Development of a Golf
Course," which appears on page 38.

Thank you very much for allowing me to utilize this
information in my project.

Sincerely,

Nick Mastroni
Nick Mastroni
3622 North Hampton Drive
Kennesaw, GA 30144-1171
(404) 590-0454

January 17, 1994

Mr. Christopher Bettin
Vice President, Publications
The Appraisal Institute
875 North Michigan Ave.
Chicago, IL 60611-1980

Dear Mr. Bettin:

Pursuant to this morning's conversation, I am requesting permission to utilize information published by The Appraisal Institute to include in a Master's degree project. This project, entitled "Feasibility and Economic Analysis for Development of a Public Golf Course Facility," is in fulfillment of a Master's degree in Sport Management from Virginia Polytechnic Institute & State University, Blacksburg, VA.

I wish to reprint Table 7.3, "Cost Estimate for Proposed 18-Hole Project," from Golf Courses and Country Clubs: A Guide to Appraisal, Market Analysis, Development, and Financing, by Arthur E. Gimmy, MAI, and Martin E. Benson, MAI. As I mentioned to you, I found this book in a "looseleaf" form rather than the actual book. In that unofficial form, this information appeared on pages 150-151. I assume that the actual page number(s) for Figure 7.3 differ in final publication form. Therefore, I request that you provide the correct page numbers in your return letter of permission so I can cite them accurately.

As a courtesy, please find enclosed a stamped, self-addressed envelope.

Thank you very much for your assistance.

Sincerely,

Nick Mastroni
January 25, 1994

Nick Mastroni
3622 N. Hampton Drive
Kennesaw, GA 30144-1171

Dear Mr. Mastroni:

The Appraisal Institute grants you permission to reprint Figure 7.4, "Cost Estimate for Proposed 18-Hole Project" (copy attached), from Golf Courses and Country Clubs: A Guide to Appraisal, Market Analysis, Development, and Financing, in a project needed to fulfill a requirement for your Master's degree in Sport Management from Virginia Polytechnic Institute & State University.

Please use the following credit line:


Sincerely,

Christopher Bettin
Vice President, Publications
Ms. Jennifer Roberts  
Managing Editor  
The Appraisal Journal  
875 North Michigan Ave, Suite 2400  
Chicago, IL 60611-1980  

January 17, 1994  

Dear Ms. Roberts:  

Pursuant to this morning's telephone conversation, I am requesting permission to reprint information from an article that appeared in *The Appraisal Journal*. I wish to reprint Table 3, titled "Golf Course Demand Analysis--Harrisburg Area--March 1990," which appears in the article, "Golf Courses--Valuation and Evaluation." This article was written by Lawrence A. Hirsh, MAI, and appeared in the January 1991 issue on pages 38-47.  

This table is to be used in a terminal Master's project for my degree in Sport Management from Virginia Polytechnic Institute and State University, Blacksburg, VA. The title of the project is, "Feasibility and Economic Analysis for Development of a Public Golf Facility."  

As a courtesy, I am enclosing a stamped, self-addressed envelope for your permission response.  

Thank you very much in advance for your assistance.  

Sincerely,  

Nick Mastroni
January 27, 1994

Nick Mastroni
3622 North Hampton Drive
Kennesaw, GA 30144-1171

Dear Ms. Mastroni:

This letter is to confirm that you have permission to reprint the table, "Golf Course Demand Analysis--Harrisburg Area--March 1990," from the article, "Golf Courses--Valuation and Evaluation," by Laurence Hirsh, from the January 1991 issue of The Appraisal Journal, in your Master's project for your degree from Virginia Polytechnic Institute and State University, "Feasibility and Economic Analysis for Development of a Public Golf Facility."

We ask that you include the following notation, which should be placed on the first page of the reprint:

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Please provide us with a final copy of the reprint for our files.

We appreciate your interest in Appraisal Institute publications.

Sincerely,

[Signature]

Jennifer Roberts
Managing Editor
The Appraisal Journal
Appendix B

Environmental Concerns to be Addressed During the Developmental Process

1. Does a golf course constitute the elimination of open or green space by making use of a site which is currently undeveloped?

2. Will the proposed golf course alter or eliminate wetland and other sensitive environmental areas that may exist on the site?

3. Are there significant historical or archaeological areas on the site that will be affected by the golf course?

4. What impact will the golf course have on the ecological systems of the site, such as plant life and wildlife habitat?

5. How will the golf course affect the existing character of a site through alteration of the topography and vegetative cover?

6. Is there any potential for water pollution from earth disturbance and erosion during the construction of the golf course?

7. Will the irrigation requirements of the golf course lead to the reduction or depletion of water supplies, especially in areas experiencing conditions which limit water sources?
8. Will the long-term application of chemicals for turfgrass management on a golf course cause water pollution from surface runoff or infiltration into the ground?

Appendix C

Checklist for the Development of a Golf Course

1. Conduct a feasibility study to verify the need for a golf course, assess the suitability of the site and establish basic goals for the project.

2. Assemble a team of qualified professionals led by a golf course architect to address the complex issues involved in planning, design, and construction of a golf course.

3. Perform a thorough site analysis with up-to-date and accurate information.

4. Review all applicable land use, environmental and construction regulations.

5. Confirm site suitability and goals for the project. Establish the design criteria for the golf course.

6. Develop a conceptual plan that addresses the environmental issues and design criteria, include responsible management practices for the construction and maintenance of the golf course.

7. Attend a pre-submittal meeting with the regulatory agencies to review and receive input on the conceptual plan.

8. Refine the concept based on the input received and develop a final master plan.

9. Submit the master plan for required approvals.
10. Stake out the golf course. Make minor adjustments, if necessary, to take advantage of natural features and adapt compatibly to the site.

11. Develop a thorough set of construction plans and specifications for the golf course. Finalize the responsible management practices.


13. Hire the golf course superintendent.

14. Perform site inspection visits to ensure that the golf course is being constructed in accordance with the plans and intent of the design. Monitor controls for environmental protection.

15. Implement responsible management practices for maintenance prior to the completion of construction.

16. Complete construction of the golf course. Maintain environmental controls until all disturbed areas are stabilized.

17. Prepare the golf course for opening. Monitor remaining environmental controls during the grow-in period.

18. Open for play. Tee it up and enjoy both the game and the environment. Continue responsible management practices during maintenance of the golf course.

Note. From An Environmental Approach to Golf Course Development (p. 38) by W.R. Love, 1992, Chicago: American
Appendix D
Personal Interview Question Lists

To Architects

1. How long have you been in the course design business?
2. Have you designed both private courses and courses that are open to the public?
3. Are there any specific differences in how you will develop a design if it is for public or private use?
4. For a public golf course developer, what do you think is the most important element in the planning stages?
5. Do you believe a stand-alone public golf course is still economically viable? Under what circumstances?
6. Do you agree that 150 acres is the minimum needed for a public course facility?
7. From your viewpoint, what are the most important features of a public course site?
8. Would you accept an assignment for a public course on a site that lacked outstanding topographical features?
9. Do you believe it’s worth the risk for a public course developer to pay extremely high fees for land in a highly populated area?
10. Are most architects paid a set fee for their designs, a percentage of the cost of construction, or other?
11. What is a realistic time frame from beginning of construction to course opening in this region?

12. Are most course construction crews contracted separately from the architect?

13. How much time should be allotted for the course grow-in process?

**To Tax/Valuation Officials**

1. How is land for a golf course evaluated and taxed as it changes from undeveloped land to a completed golf course?

2. Is there any difference in how varying land parcels will be assessed, depending on their topography or other specific features?

3. Is there any way a developer can find out in advance of building the course, what the taxes will be on the property once it is completed?

4. Is the course developer required by law to notify the tax assessor's office of the new development?

5. What permits must a golf course developer apply for?

**To Commercial Lenders**

1. Has your institution ever provided loans to golf course developments?
2. How many inquiries, if any, does your institution receive per year about financing a golf course project?

3. Since 1990, how many golf course projects, if any, have you actually financed?

4. Will you finance both new and existing courses, or refinance existing courses only?

5. If you will consider financing a new project, what is the maximum loan-to-value amount you will consider lending?

6. What type of experience in golf course development and operations will be required of the investor/investor group?

7. Must the developer have a long-term prior business relationship with your institution?

8. Must the developer present a formal feasibility study by an outside appraiser?

9. What distance limitations would you place on the location of the course in relation to (in miles)?

To Course Developers

1. When was the land acquired for this site?

2. How much land is being utilized for the course?

3. How many other sites, if any, did you consider?

4. How long did the site selection process take?

5. What are the main reasons you selected this site?

6. How much did you pay for this site?
7. What demographic information, if any, did you obtain about golfers in the area surrounding the course?
8. Who is your course architect and why did you select him?
9. What are your architect's fees?
10. Who did you select to construct the course and why?
11. What are the anticipated total construction costs for this course?
12. When did construction begin and when did, or will, the course open?
13. What is the estimated cost for the clubhouse and maintenance structures?
14. Will you purchase or lease your maintenance equipment?
15. What do you estimate total legal fees to total during this development?
16. What is, or will be, the total amount borrowed to finance this course?
17. What is, or will be the total cost of development of the golf course?
18. What in your opinion is the most difficult step in successfully developing a golf course?
Appendix E

Cover Letter/Questionnaire to Golf Course Architects

Nick Mastroni
3622 North Hampton Drive
Kennesaw, GA 30144
(404) 590-0454

August 26, 1993

Denis Griffiths
P.O. Box 327
Braselton, GA 30517-0327

Dear Mr. Griffiths:

I am a graduate student in Sport Management at Virginia Tech in Blacksburg, VA. I am currently developing a Master's project in the Atlanta, Ga. area. The subject: economics of public golf course development in major metropolitan areas. In this regard, I would greatly appreciate your response to the very brief enclosed questionnaire on fees and fee structures of course architects in this region.

Please answer the brief questionnaire (next page) and return it in the stamped, self-addressed envelope at your earliest convenience. Incidentally, for verification of this project you may contact my project chairperson at Virginia Tech, Dr. Margaret Driscoll, at (703) 552-4369.

Thank you in advance for your assistance on this project.

Sincerely,

Nick Mastroni

86
Survey on Golf Course Architectural Fees

1. For designing a regulation 18-hole golf course, do you charge a set fee or a fee that's within a specific cost range?

2. If you charge a set fee, what is it currently?

3. If your fee is within a given range, what is that range for all courses you have designed since 1990?

4. Please explain briefly how your fee is structured, i.e., what percentage must be paid in advance, time intervals between payments, and percentage of payment made at each ensuing interval.

5. Have you ever been asked to accept payment for services other than cash, e.g. equity in a course project? If so, have you accepted alternate payment methods? When?

Thank you in advance for responding to these questions.
Appendix F

Cover Letters/Questionnaire to Course Construction Contractors

Nick Mastroni
3622 North Hampton Drive
Kennesaw, GA 30144-1171
(404) 590-0454

August 31, 1993

Dear :

I am a graduate student in Sport Management at Virginia Polytechnic Institute, Blacksburg, VA. Currently I'm developing a Master's project while completing an internship in Atlanta, GA. The subject: Economics of public golf course development in a major metropolitan area. In this regard, I would greatly appreciate your response to the brief questionnaire on fees and fee structures of golf course construction companies.

Please answer the brief questionnaire enclosed and return it in the stamped, self-addressed envelope at your earliest convenience. As verification of my reason for this survey, you may contact my project chairperson at Virginia Tech, Dr. Margaret Driscoll, at (703) 552-4369.

I thank you in advance for your assistance and look forward to your response.

Sincerely,

Nick Mastroni
Survey To Golf Course Construction Contractors

1. How do you ordinarily obtain a contract to build a new course?

_________ Contacted by a course developer
_________ Contacted by the course architect
_________ Other source (please name).

2. How many regulation-length, 18-hole courses has your company constructed since 1990? (Please include any courses you are currently building in this total.)

3. Assuming there is no set fee that you charge for complete construction of any given course, what has been the construction cost range, from highest to lowest, for all courses your company has built since 1990?

4. Can you estimate the average cost for all regulation 18-hole courses you've constructed since 1990?

5. Has your construction cost of courses to be open for public use, been appreciably different from any private or resort courses you've built? If so, please estimate the difference in cost of construction for the open-to-the-public course(s).

6. Does average cost of construction vary appreciably from region to region in the U.S.? If possible, please estimate the anticipated percent cost differences above or below average you can anticipate for construction in the following regions:

_________ Northeastern U.S.
_________ Southeastern U.S.
_________ North Central U.S.
_________ South Central U.S.
_________ Western U.S.

7. If there are any appreciable differences in construction costs in different regions, please explain the reasons for them.

8. Once construction is completed, what is the recommended amount of course grow-in time, for an open-to-the-public, daily fee course in particular?
9. What do you estimate as the cost of maintaining a new course during the grow-in period? Does this vary by region?

10. How are you customarily paid for your services? For example, please explain if there is an up-front percentage paid, the normal spacing between installments, whether all installments are of equal amounts, if any large "back end" payment is accepted, and so on.

11. Does your company ever or frequently contract to accept a percentage ownership in the course, or any other form of payment for course construction other than cash?

Thank you very much for answering these survey questions.
Dear:

I am a graduate student in Sport Management at Virginia Polytechnic Institute, Blacksburg, VA. I am developing a project to complete my Masters degree while concurrently completing an internship in the Atlanta, GA area. My project subject is: "Economic for Development of a Public Golf Course Facility."

Approximately one month ago, I mailed out a survey questionnaire to golf course building contractors in order to learn about golf course construction fee structures. I am sending out this follow-up questionnaire for the purpose of obtaining an increased response rate to this survey. Would you kindly complete this brief questionnaire as fully as possible? I would appreciate your returning your response in the enclosed self-addressed, stamped envelope no later than November 6, 1993. (If by chance you have already sent a response to this survey, please disregard this request.)

Let me assure you that in my final product, your company name will be kept anonymous. The information itself is what is necessary to my project.

If you would like to verify the authenticity of this survey, you may call my project chairperson, Dr. Margaret Driscoll, Professor Emeritus, at (703) 552-4369. Again, thank you kindly for your assistance.

Sincerely,

Nick Mastroni
Appendix G

Cover Letter/Questionnaire to Golf Course Developers

Nick Mastroni
3622 North Hampton Drive
Kennesaw, GA 30144-1171
(404) 590-0454

September 4, 1993

Mr. David Rosow
Rosow & Company, Inc.
1248 Post Rd.
Fairfield, CT 06430

Dear Mr. Rosow:

I've recently been trying to reach you by telephone but have been unsuccessful, so I decided to write.

I am a graduate student in sport management at Virginia Polytechnic Institute & State University, in Blacksburg, VA. Currently I am working on a required master's internship in the same place where your son Dave worked, under Don Rhodes in Textron Financial's Vendor Finance Division. I met Dave briefly during a visit in May and started my internship here in August.

Mr. Rosow, I'm concurrently working on my Master's degree project, which is on the subject, "Economic Analysis for Development of a Public Golf Course Facility." As such, I am seeking information from golf course designers, construction companies, commercial lenders and, most importantly, from course developers such as yourself. I am asking developers of open-to-the-public courses which are either currently under development, or which have been open for fewer than five years, to share information on development of their course for the benefit of this project. In your case I would very much like to talk to you about the development of Southerness, either in person if you will be in this area, or by use of the questionnaire which I have enclosed.

Mr. Rosow, I understand that some or many of the developers I contact may opt not to share any information regarding their course's development. I hope you will decide to grant me this information which is for the sole purposes of completing my Master's degree and learning as much as I can.
about the business. In order to allay any concerns you might have, I am offering everyone contacted the option of answering these questions while keeping the name of the golf course or courses anonymous. If any ONE respondent requires anonymity, I will leave ALL courses discussed anonymous.

As further assurance, I'd like to add that in my "past life," I have been a professional writer in the golf field, having been an editor for both GOLF and Golf Illustrated magazines. I will not abuse your trust. In case you should have any further questions, my project chairperson at Virginia Tech is Dr. Margaret Driscoll, Professor Emeritus. She can be reached at (703) 552-4369.

I hope you will either return this questionnaire in the stamped, self-addressed envelope, or leave a message at either my home number listed above, or at the Textron office, (404) 913-1462.

Thank you very much in advance and I look forward to hearing from you!

Sincerely,

Nick Mastroni
Survey to Public Golf Course Developers

1. (OPTIONAL). What is the name of your course or courses?

2. When did the course open or when is it scheduled to open?

3. When did you obtain the site for this golf course?

4. How many sites did you consider before choosing this one?

5. How long did your site search process take?

6. Did you commission a feasibility study and/or a cost &
   design study prior to beginning the project? If so, how much did each cost?

7. What, if any, was the purchase price of the land for this course?

8. How many acres is this site?

9. How much time elapsed between acquisition of the site
   and actual beginning of construction?

10. What were the course architect's fees for the design of
    the course in question?

11. How long did it take to construct the course?

12. What was the total cost of construction for this course?

13. How long was the grow-in period for the course? From
    what month to what month?

14. Did you opt to rent a temporary clubhouse, construct a
    clubhouse with plans to enlarge it in the near future
    as needed, or build a permanent clubhouse prior to
    opening?

15. What was the total investment in the clubhouse
    including all furnishings and equipment, prior to
    opening?

16. What was your investment in course maintenance
    equipment? Did you opt to purchase new or used
    equipment?
17. What was the total investment in this golf course by the time the course opened for business?

18. Please describe the financing setup for this golf course. Were there separate loans for land purchase, construction, equipment, clubhouse, etc., or was there a single blanket loan?
Appendix H

Questionnaire to Commercial Lenders

1. Do you customarily finance the development of:
   Privately-owned, open-to-the-public golf courses?
   Yes _____ No _____
   Private golf courses?
   Yes _____ No _____
   Resort courses?
   Yes _____ No _____

2. Do you fund existing golf courses only?
   Yes _____ No _____
   New developments?
   Yes _____ No _____
   Both existing courses and new developments?
   Yes _____ No _____

3. How do you transact any such loans? (Check all that apply.)

   Real estate department _____
   Commercial lending division _____
   Corporate loan department _____
   At local level _____

4. Would you consider lending to a developer or group that is starting a golf course for the first time?
   Yes _____ No _____
If not, how much experience as a course operator would you demand from the borrower?

0-3 years ______
4-6 years ______
7-10 years ______
Other (Please specify) ______

5. Is there any minimum or maximum amount of funding you will lend to a new golf project

Yes ______ No ______

If yes: Minimum ________ Maximum ________

Is there any minimum or maximum amount of funding you will lend to an already-existing course?

Yes ______ No ______

If yes: Minimum ________ Maximum ________

6. What type of background experience would you require of a developer seeking the maximum amount of funding?

7. Would these requirements be relaxed at all in the case of a borrower seeking a smaller loan amount?

Yes ______ No ______

If yes, please explain.

8. What are your loan-to-value guidelines for golf course loans?

If you do not use loan-to-value as your criteria, what other standard do you employ?

9. What is the minimum percentage of total estimated investment that you would require any developer to have?

10. Please rate the following factors in determining whether to make a given golf course loan, on a scale of 1-10, with 10 representing the most important factor:

______ a. Management strength
______ b. Cash flow
______ c. Competition in the area
d. Barriers to entry

11. Do you require fixed covenants from the borrower such as (please check all that apply):

   a. Fixed charge coverage
   b. Leverage
   c. Dividend distribution

12. Typically, do you provide a single, blanket loan for the entire project, or a series of loans, i.e., for land purchase, course/clubhouse construction, golf course development, grow-in period, or other? Please check below:

   Single blanket loan
   Series of loans

   (Note: If you provide single blanket loans only, please skip to Question 17.)

13. What are your normal lending terms for a land loan with regard to:

   a. Length of loan.
   b. Lending rate (currently).
   c. Closing fees (legal fees, points, etc.)
   d. Maximum percentage of purchase price loaned.

14. What are your normal lending terms for a construction loan in terms of:

   a. Length of loan.
   b. Lending rate (currently).
   c. Closing fees (legal fees, points, etc.)
   d. Maximum percentage of construction cost loaned.

15. Is financing during the grow-in period included as part of the construction loan?

   Yes _____   No _____

   If not, how is this time period before opening financed?
16. What are your normal lending terms for a loan for golf course maintenance equipment in terms of:

\[ \begin{align*} 
\text{a. Length of loan} \\
\text{b. Lending rate (currently)} \\
\text{c. Closing fees (legal fees, points, etc.)} \\
\text{d. Maximum percentage of equipment cost loaned.} 
\end{align*} \]

17. Do you separate golf course development loans from loans on real estate development that might be connected to a golf course?

Yes ______  No ______

18. What documentation do you specifically require the borrower to provide in order to obtain a loan or series of loans? Please check those required:

\[ \begin{align*} 
\text{_____ Phase I Environmental reports} \\
\text{_____ Engineering reports} \\
\text{_____ Survey reports} \\
\text{_____ MAI appraisal} \\
\text{_____ Others (please name)} 
\end{align*} \]

19. Please describe what you require from the borrower in terms of a business plan or pro forma for their course project.

20. What geographical limitations do you set for the golf course(s) being considered?

21. Since 1990, how many public golf courses have you financed and/or are in the process of financing?

Number ______

What is the average amount loaned in these transactions?

________________