

Feasibility Reports

Potential courses of action are described in feasibility reports.

Feasibility studies analyze the technical and economic practicalities of potential courses of action. The results of these studies are reported in feasibility reports.

FEASIBILITY REPORTS COMPARED WITH ACTIVITY AND PRODUCT EVALUATIONS

Feasibility reports are similar to activity and product evaluations because, similar to activity and product evaluations, they discuss activities and products. However, feasibility reports discuss proposed activities and products, whereas activity and product evaluations discuss completed activities and products already in use. Therefore, feasibility reports use projected, rather than substantiated facts and data. Also, feasibility reports may discuss multiple proposed activities and products, whereas activity and product evaluations discuss only one completed activity or product.

PURPOSE AND AUDIENCE

Feasibility reports recommend courses of action based on technical and economic analyses. They are written in response to requests from management and clients in the following circumstances:

- To evaluate the potential for success of a proposed activity or product, such as a new marketing strategy, the replacement of an obsolete tool to improve production, or improved performance that is due to the purchase of a new product. The proposed activity or product is hoped to be an improvement over the present satisfactory activity or product.

Taking no action is the only alternative to the single proposed activity or product.

- To compare proposed activities or products to determine the best of multiple alternatives, such as the site location for a new facility or the purchase of a new pump. When the present activity is satisfactory, taking no action is an alternative. However, when the present activity is unsatisfactory, one of the proposed activities must be selected.

In an economic feasibility analysis, when:

- The present activity or product is satisfactory, and therefore, taking no action is an alternative to the proposed activity or product, for a proposal to be a satisfactory alternative, either
 - The benefits must exceed the costs (commonly used in private industry).
- or
- The benefits divided by the costs must exceed 1.0 (commonly used by government agencies).
- The present activity or product is unsatisfactory, and therefore taking no action is not an alternative (e.g., action must be taken either by necessity of situation, or contractual obligation), the most satisfactory alternative then is selected based on either
 - The greatest benefits minus costs, even when the costs exceed the benefits for all alternatives (commonly used in private industry).
- or
- The highest ratio of benefit divided by cost, even when this ratio does not exceed 1.0 for all alternatives (commonly used by government agencies).

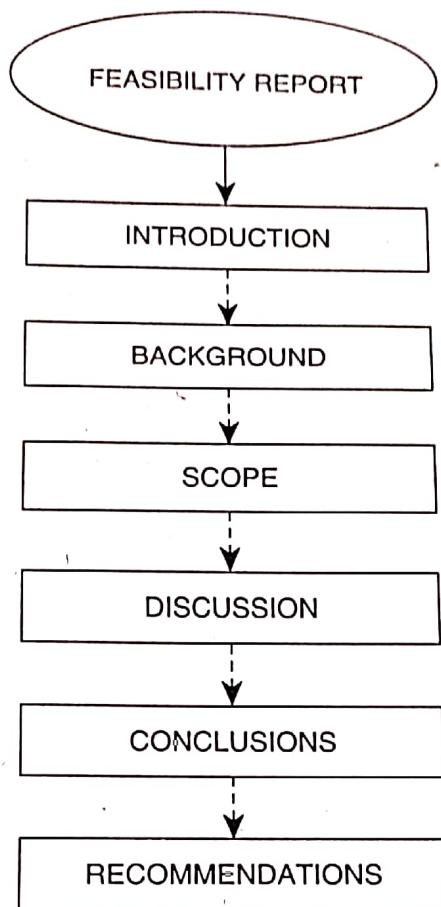
A technical feasibility analysis is typically the result of significant research and development (see Chapter 23, "Research Reports"). The criteria for acceptance of an activity (e.g., an improved chemical process) or a product (e.g., a larger carburetor) are determined by comparing the increased benefits (e.g., increased acceleration using a proposed carburetor) with the increased cost in dollars plus the "disbenefits" (disadvantages) (e.g., increased fuel consumption and maintenance). Because the realm of possible technical benefits for all activities and products includes all possible technologies, and the desired magnitude of these technical benefits is an intangible (i.e., subject to one's emotions), a discussion of technical feasibility is beyond the scope of this text and not discussed further.

CONTENT

Feasibility reports typically include the following sections (Figure 18-1):

FIGURE 18-1

Sections of a Feasibility Report



1. *Introduction*: a statement of the problem. Include the subject and purpose of the study and its authorization.
2. *Background*: the changes that occurred to create the necessity for this study.
3. *Scope*: the proposed alternatives to the present activity or project that are the basis of the study.

When multiple proposed activities or products are compared, it should be clearly stated when the present activity or product (or its absence if no activity or product presently exists) is satisfactory. When only one alternative is proposed, the present activity or product (or its absence) is deemed to be satisfactory.

Include the basis for selecting the proposed activities or products (e.g., data from scale model tests that are deemed to be sufficiently accurate) and conditions that limited the selection of proposed activities or products (e.g., the proposed activity must not require an inventory of spare parts, or the proposed product must not cost more than \$2000/yr for operating expenses).

- 4. Discussion:** the analysis of the proposed activities or products.
 Include the information used to form the conclusions and recommendations of the study in this section.
 Use facts, data, and calculations as the basis of your analysis. Present the information in a sequence that readers can easily comprehend.
 For multiple proposed activities, analyze each activity individually before comparing them. Supplement your analyses with tables, charts, and graphs to demonstrate these comparisons.
 Clearly explain the methodology that is used to justify the conclusions and recommendations.
- 5. Conclusions:** the natural results from the information presented in the discussion. This section is the link between the discussion and the recommendations.
- 6. Recommendations:** the course of action determined as a result of this study. The first recommendation discussed is the course of action that is the most advantageous to resolve the problem.

When a proposed course of action is recommended over the present course of action, it is appropriate to discuss other concerns, not the subject of the analysis. For example, for each recommended course of action, discuss the method, time required, internal capability of the organization, and availability of resources.

Also, related effects can be discussed such as the impact on other departments, other components, and the environment.

When the present course of action remains the preferred course of action, alternative courses of action may be suggested for further study.

Although the information in this section is a direct result of the preceding conclusions, this section may be placed after the introduction because of its usefulness.

Readers of feasibility reports may have nontechnical backgrounds. Therefore, write the report without jargon.

Sample Discussion
(Calculations Shown for a Rental Truck)

	Expense	Income
Purchase price	\$18,000	
Maintenance, 5 yr @ \$350/yr	1,750	
Tires, 5 yr @ \$150/yr	750	
Overhaul @ 4 yr	1,500	
Rental, 5 yr @ \$4,500/yr		\$22,500
Resale @ 5 yr		5,000
TOTAL	\$21,750	\$27,500

Benefits minus costs = \$27,500 - \$21,750 = \$5,750 > \$0 OK

Critique of Sample Discussion

The calculations are clearly presented and easy to understand. Recurring items include the frequency and amount. The two columns, expense and income, organize the entries that must be added together. The totals, in bold numbers, are easily visible. The benefits minus the costs are calculated, shown to be greater than 0, and declared to be satisfactory. Because the benefits minus the costs are calculated, it is presumed that study is for a rental truck in private industry. Notice that if the benefits/cost ratio were calculated, as is typical for government agencies, this ratio would be 1.26 and would also be deemed to be satisfactory.

Because the largest number in each column exceeds four digits and therefore requires a comma, appropriately, all numbers in each column that include four or more digits also include a comma (remember that in technical writing, four-digit numbers do not ordinarily include a comma). Also notice that the commas align.

Did you notice the arithmetic error? The expense column should total \$22,000. These errors are not uncommon for young professionals (arithmetic errors occur in many student reports). These errors, which easily can be corrected, create doubt, not only concerning the calculations, but also concerning the reliability of the assumptions, theory, conclusions, recommendations, and any other section of a report that requires critical thinking.

Sample Recommendations

I recommend that the drafter reject the job offer for more money because of the travel required. The additional income would more than offset the additional travel expenses. However, her present income is adequate, and the time spent traveling could be spent with her family. If she believes that she should be earning more money, she should continue to pursue new employment closer to home.

Critique of Sample Recommendations

The first sentence rejects the proposed activity with justification, as a result of this study. The following two sentences acknowledge the benefit of the proposed activity to the reader but justify its rejection.

The last sentence proposes an alternative course of action to achieve the same result. This sentence should begin a new paragraph because of its importance.

This section is easy to understand and, in spite of the negative recommendation, has a positive effect on the reader because of the alternative recommendation.

SAMPLE ASSIGNMENT—FEASIBILITY REPORT

Create purposes and contexts for any factual information and data needed for the following assignment.

A fellow classmate is considering the purchase of a used car to take a part-time, career-related job off campus. Your classmate is self-supporting with the aid of a 15-hr/wk job

in the bookstore, which pays \$6/hr; summer employment in the family business, which pays \$350/wk; and a \$2500/yr student loan. This job pays \$12/hr but requires your classmate to work 4 hours every afternoon.

Because of the additional hours required to be spent at work and the desire to maintain an A— average, your classmate will need to carry a reduced study load. This will delay graduation by only one semester (quarter) if the student attends summer school. Assume that the car costs \$3000. Payments will be \$87/mo for 3 years with \$500 down. Insurance and maintenance will be \$150/mo.

Write a feasibility report for this classmate to recommend a course of action.

Figures 18–2 and 18–3 are two examples of responses to this assignment.

Critique of Feasibility Report—Sample 1

In Sample 1 (Figure 18–2), the scope, which is necessary to alert the reader of what is discussed, is inappropriately not included. Also, this sample does not state the data given to perform the analysis. This information is crucial and needs to be included.

The advantages and disadvantages of career-related jobs and used cars are discussed in unnecessary detail in the discussion. Although details should be included, including unnecessary details implies a lack of basic knowledge of the reader.

In spite of the arithmetic error in the calculations, the structure makes the calculations easy to follow. Each course of action is labeled, and the totals are included.

However, the data for these calculations are not stated in the proposal or the analysis. Also, the report needs to show how each number in the columns is calculated. For example, the bookstore salary should read:

$$\text{Bookstore salary} \quad 15 \text{ hr/wk} \times 30 \text{ wk/yr} \times \$6/\text{hr} = \$2700$$

In the conclusions and recommendations, Sample 1 summarizes the advantages of the proposal. In spite of the heading, no factual conclusions are stated as a result of the analysis, and the recommendation is merely implied in the closing of the last sentence where the author states “it will help this student.” The recommendation should be clearly stated such as “John should take this part-time, career-related job to give him an advantage in finding full-time employment in civil engineering when he graduates.”

The recommendations are frequently written as a list for easy interpretation by readers.

FEASIBILITY REPORT: A CAREER-RELATED JOB

In discussing the salary, the writer should replace "will be double" with numbers.

Introduction

In order to take a part-time civil engineering job, Janice Alk must buy a used car to travel to it. Although the new job salary will be double that of her present job, she has to consider many additional problems which include staying an additional quarter at school to maintain her A- average, additional tuition for that quarter, travelling expenses, and insurance and payments for the car. However, it may be desirable to take the career-related job because the experience may help Janice to find employment upon graduation.

Discussion

Career-related jobs. A career-related job can help a student in many ways. It offers an opportunity to determine career interests, gain experience, and make personal contacts. Career-related jobs also give valuable insights into the function and politics of a civil engineering company. The student can learn first-hand about the civil engineering company and the specific job functions she or he can expect to find upon graduation. Also, a career-related job can provide practical experience for a student as she or he earns money to pay for school. A career-related job gives the student an advantage over the hundreds of other civil engineering graduates seeking employment. Also, the student can hope to receive a job offer from the firm at which she or he works.

The disadvantages for taking this job are the delaying of graduation and the expenses for buying, insuring, and maintaining the used car.

Used car. Although it is very convenient to own a car, a used car can create stress, because a used car may develop problems such as engine and transmission trouble. The buyer must worry about unknown wear and tear caused by the former owner or owners and future expenses for mechanical maintenance. The used car may have defective features such as worn safety belts, oil and radiator leaks, noise in the engine, and ignition problems. Because of wear, the steering response in an older car may not indicate to the driver how his or her tires are gripping the road and may cause an accident. The older car may be less fuel-efficient and slow in accelerating. Braking efficiency may be diminished in the used car.

FIGURE 18-2
Feasibility Report—Sample 1 (pp. 271–272)

Yearly Financial Analysis**Present Job**

Bookstore salary	\$ 2,700
Summer job	5,250
Student loan	<u>2,500</u>
Total annual income	\$10,450

This section should show the calculations used to get these numbers, for example, 15 hr/wk × \$6/hr × 30 wk = \$2,700.

Note the arithmetic error for total annual income. The total should be \$8,478.

Career-Related Job

Salary	\$9,600
Student loan	2,500
Down payment for car	- 500
Insurance and maintenance	-1,800
Annual payment for car	-1,044
Additional tuition fee	<u>- 278</u>
Total annual income	\$8,725

Conclusions and Recommendations

Recruiters at major civil engineering companies receive hundreds of resumes annually; it is impossible for them to interview every person looking for an entry-level position. Therefore, recruiters frequently skim through resumes to study the applicants' relevant experience. Having a career-related job will give the student an advantage over other competitive applicants. Although taking a career-related job will require travel time, car maintenance and expenses, and provide less spending money, it will help this student to find a job when she graduates.

FIGURE 18–2
(continued)

Critique of Feasibility Report—Sample 2

Sample 2 (Figure 18–3) includes a statement of the problem instead of an introduction, an acceptable substitution. The problem and the proposed solution are discussed in this section; the history of the proposal is discussed in the background; and the assumptions of the analysis are discussed in the scope.

Although the proposed solution is usually discussed in the scope, its placement with the statement of the problem is satisfactory.

In the background, this sample briefly discusses the advantages of the proposed course of action with relationship to the history of the proposal without including the unnecessary details of owning a used car. This appropriately assumes the reader has the basic understanding of the advantages and disadvantages of the proposal and merely needs to be reminded.

The calculations in the discussion have a clerical error (\$11,420.00 should read \$5,950, but the total \$11,420.00 is correct), and a data error (payments of the car are \$87.00/mo rather than \$87.50/mo).

In the discussion, each set of calculations should have a heading. The results are further calculated in the paragraph following the tabulated calculations. This information is difficult to understand and should be included in a table.

The opening statement in the recommendation is the recommended course of action as a result of this study. The benefits of taking this course of action are then briefly reiterated. The closing sentence states what the student must do to implement this proposal. This section is clearly written and easy to understand.

FEASIBILITY REPORT FOR WORKING STUDENT

Statement of the Problem

A university student is considering the purchase of a used car so that he can take a part-time, career-related job off campus. He is self-supporting with the aid of a 15 hr/wk job in the university bookstore, which pays \$6/hr.; summer employment in his family's business that pays \$350/wk.; and a \$2,500/yr student loan. The new job pays \$12/hr for 4 hours in the afternoon, Monday through Friday. The additional hours at work would require him to reduce his study load and go to summer school. This would delay his graduation by one quarter. The car would cost \$3,000 with a down payment of \$500; the monthly payments are \$87.00. Insurance, fuel, and maintenance costs would total \$150/mo. Is this course of action feasible?

Background

Choosing between school and work is a common dilemma for university students. As the percentage of high school graduates who enter colleges or universities has risen, so has the percentage of students from mid- to lower-income families. These students cannot rely on their parents to support them, and many work to earn their living and educational expenses. Because a greater number of graduates enter the job market every year, employers are looking for prospective employees who have work experience as well as a diploma. This has given students the additional incentive to work part-time in a job related to their field.

The scope section should describe for whom or under what conditions the report is applicable, not the assumptions of the report.

Scope

For lack of statistical date concerning the attitudes of employers regarding the importance of grades, of timeliness of graduation, and of career related work, this report assumes equal weight for all these factors. It assumes that the student plans to accept full-time work in his chosen field immediately on graduation. It further assumes that the student will attend school for 3 more years and will receive no raise in salary or obtain additional income. Also, it assumes that the student will incur no additional debts.

FIGURE 18-3
Feasibility Report—Sample 2 (pp. 274–276)

Note the clerical error: The summer job income should be \$5,950.00 not \$11,420.00.

Discussion

Because the car payments are spread over 3 years, the average net income per year is calculated below for each alternative.

If the student keeps his job in the bookstore and works for his family in the summer, his net income would be as follows:

Bookstore	$\$6/\text{hr} \times 15 \text{ hr/wk} \times 33 \text{ wk/yr} =$	\$2,970.00
Summer job	$\$350/\text{wk} \times 17 \text{ wk} =$	11,420.00
<u>Student loan</u>	$\$2,500/\text{yr} =$	<u>2,500.00</u>
TOTAL		\$11,420.00

If the student buys the car and accepts the new part-time job his net earnings would be:

Income from:

New job	$\$12/\text{hr} \times 20 \text{ hr/wk} \times 50 \text{ wk/yr} =$	\$12,000.00
Student loan	$\$2,500/\text{hr} =$	<u>2,500.00</u>
Subtotal		\$ 14,500.00

Less cost of car:

Payments	$\$87.50/\text{mo} \times 12 \text{ mo/yr} =$	\$1,050.00
Down payment	$\$500/3 \text{ yr} =$	166.67
Maintenance	$\$150/\text{mo} \times 12 \text{ mo/yr} =$	<u>1,800.00</u>
Subtotal		\$3,016.67
TOTAL		\$11,483.33/yr

Note the clerical error: The payments should be \$87.00/mo not \$87.50/mo. The annual payment should be \$1,044.00.

The data in this paragraph are difficult to follow and would be more effectively presented in a table.

Although the student will net slightly more over the years if he accepts the new job, he will also work 3 months longer at his part-time job. Assuming the full-time entry-level position pays the same \$12/hr, the student will lose \$2,640.00 over the 3 months rather than starting his full-time career as originally intended. His net earnings for the 39-month period would thus be \$16,700.00 if he keeps his present job and \$14,123.33 if he takes the new one - a difference of \$2,576.67. The student would have to spend much of this on a car after graduation to commute to work.

SECTION III: Applications for Students and Professionals

Recommendation

The student should choose the part-time job that best prepares him for his future work. Although keeping his campus job may facilitate graduating sooner and beginning his career, it will not provide him the experience in his field of work. This experience will give him a better bargaining situation for his starting position and salary. In addition to this, owning a car will provide him with the opportunity to visit prospective employers and become more involved with the outside community. Therefore, the student should buy the used car and accept the career-related off-campus job.

ation and plan your con-
tention. You will also want to be knowledgeable about the conventional structures
writers use for common report types.

This chapter explains the purposes and organizational patterns of six of the most common reports. Depending on reader, purpose, situation, and company custom, these reports may be written as informal memos, letters, or formal documents that include all the elements discussed in Chapter 10.

WRITING A FEASIBILITY STUDY

A *feasibility study* provides information to decision makers about the practicality and potential success of several alternative solutions to a problem.

Purpose

Executives often ask for feasibility studies before they consider a proposal for a project because they want a thorough analysis of the situation and all the alternatives. The writer of a feasibility study identifies all reasonable options and prepares a report that evaluates them according to features important to the situation, such as cost, reliability, time constraints, and company or organization goals. Readers expect a feasibility study to provide the information necessary for them to make an informed choice among alternatives. The alternatives may represent choices among products or actions, such as the choice among four types of heating systems, or a choice between one action and doing nothing, such as the decision to merge with another company or not to merge. When you write a feasibility study, provide a full analysis of every alternative, even if one seems clearly more appropriate than the others.

Organization

Model 12-1 shows a feasibility study written by an executive to the president of the company. The company management has already discussed relocation to a new city and the need for this study. In her report, the writer presents informa-

tion she has gathered about two possible sites, evaluates them both as to how well they match the company's requirements, and recommends one of them. Feasibility studies usually include four sections.

Introduction

The introduction of a feasibility study provides an overview of the situation. Readers may rely heavily on the introduction to orient them to the situation before they read the detailed analyses of the situation and the possible alternatives. Follow these guidelines:

- Describe the situation or problem.
- Establish the need for decision making.
- Identify those who participated in the study or the outside companies that provided information.
- Identify the alternatives the report will consider, and explain why you selected these alternatives, if you did.
- Explain any previous study of the situation or preliminary testing of alternatives.
- Explain any constraints on the study or on the selection of alternatives, such as time, cost, size, or capacity.
- Define terms or concepts essential to the study.
- Identify the key factors by which you evaluated the alternatives.

In Model 12-1, the writer opens with a short statement that includes the report purpose and her recommendation of which location is best.

Comparison of Alternatives

The comparison section focuses equally on presenting information about the alternatives and analyzing that information in terms of advantages and disadvantages for the company. Organize your comparison by topic or by complete subject. For feasibility reports, readers often prefer to read a comparison by key topics because they regard some topics as more important than others and they can study the details more easily if they do not have to move back and forth between major sections. Whether comparing by topic or by complete subject, discuss the alternatives in the same order under each topic, or discuss the topics in the same order under each alternative. Follow these guidelines:

- Describe the main features of each alternative.
- Rank the key topics for comparison by using either descending or ascending order of importance.

- Discuss the advantages of each alternative in terms of each key topic.
- Point out the significance of any differences among alternatives.

The writer in Model 12-1 compares the two possible sites by topic, using subheadings to help readers find specific types of information. The subheadings represent the established criteria for evaluating the locations.

Conclusions

The conclusions section summarizes the most important advantages and disadvantages of each alternative. If you recommend one alternative, do so in the conclusions section or in a separate section if you have several recommendations. State conclusions first, because they are the basis for any recommendations. If you believe some advantages or disadvantages are not important, explain why. Follow these guidelines:

- Separate conclusions adequately so that readers can digest one at a time.
- Explain the relative importance to the company of specific advantages or disadvantages.
- Include conclusions for each key factor presented in the comparison.

Recommendations

The recommendations section, if separate from the conclusions, focuses entirely on the choice of alternative. Your recommendations should follow logically from your conclusions. Any deviations will confuse readers and cast doubt on the thoroughness of your analysis. Follow these guidelines:

- Describe your recommendations fully.
- Provide enough details about implementing the recommendations so that your reader can visualize how they will be an effective solution to the problem.
- Indicate a possible schedule for implementation.

In Model 12-1, the writer combines her conclusions and recommendation. She reviews the company's decision to relocate, and she next explains that both sites are acceptable. Because Randolph Center involves less cost and will be ready for occupancy ahead of the company's deadline, she recommends that site.

To: Samuel P. Irving
President

From: Isobel S. Archer
Vice President—Administration *DSA*

Date: April 16, 1999

Subject: Feasibility Study of Sites for Kansas City Offices

Introduction

This report assesses two available locations in greater Kansas City as possible sites for the new corporate offices of Sandrunne Enterprises. After reviewing the background, company needs, and features of the two available sites, I recommend we buy a building and lot in the Randolph Center.

Background

Sandrunne Enterprises has been considering moving the corporate headquarters to Kansas City from Springfield for about two years. Due to streamlining operations and expanding services, the current building in Springfield no longer fits the Company needs. Further, location in Kansas City will enhance our transportation connections and improve our ability to meet schedules. As you know, the Board of Directors has set strict parameters regarding the potential location for Sandrunne. The building/land must be large enough to accommodate our current requirements with enough room for reasonable expansion over the next five years, but overall acreage should not exceed two acres. The building/land must be in excellent condition, located in the greater Kansas City area in Missouri, and readily accessible to transportation carriers. Project cost should not exceed \$600,000, and relocation should be completed by February 2000, when our current lease expires.

Possible Alternatives

I have surveyed the available building and land combinations with the assistance of Martin Realty Company, and the two locations that seem most appropriate are Randolph Center, a complex in North Kansas City, and Lincoln Industrial Park, also in North Kansas City. The two alternatives were chosen based on space suitability, condition of the

building/land, transportation accessibility, cost, and availability within our time frame. Information for this study was obtained through meetings with William Martin, president of Martin Realty, Tracey Manchester, Director of Kansas City Regional Development Board, and John Blackthorn, Real Estate Administrator for the Department of Planning and Urban Development of Kansas City. I made two trips to each site, accompanied by Rafael Mendez, from our transportation planning division.

Alternative Locations

Space Suitability

The Randolph Center building is on 1.2 acres of land and fits the basic corporate office/warehouse specifications required by the Board of Directors. Although the acreage is less than two acres, the office building, warehouse facility, and truck docks fit our exact requirements. Only minor modifications to the office building and the warehouse would be needed at Randolph Center. The warehouse space is actually 2,000 square feet over our current requirement and, therefore, allows for future expansion.

The Lincoln Industrial Park site is 2.4 acres. Most industrial parks are already plotted with specified acreage per plot, and the 2.4 plot available was one of the smaller locations close to our two-acre ideal.

Condition of Building/Land

The Randolph Center location contains a brick building built in 1985, and in excellent condition with well-landscaped grounds. We would need inspections before purchase, but the current condition of the building seems in good repair. The offices have oak paneling, new carpeting, skylights in the reception area, windows and crown molding in every office, six-panel doors, and tiled bathrooms. Overall, the offices have a professional appearance in keeping with Sandrunne's image. The warehouse is equally well built with cement blocks throughout, and the layout, including the two dock areas, would fit Sandrunne's activities nicely.

The Lincoln Industrial Park location is newer (1990), and we would have to landscape the area as well as build offices. The land is flat and

dry, making construction fairly straightforward. Paved roads to the site are complete, and other existing buildings are of high quality. Sandrunne would have to break ground for construction, but, of course, we could design the building exactly the way we want it.

Location and Transportation Accessibility

Since all of Sandrunne product is transported by truck, we must have access to a highway system and a layout and docking area in which the truckers can maneuver relatively easily. Both locations are within the general area we had chosen as appropriate. Both have adequate trucking access, and employees could reach either one via a four-lane highway system. Rafael Mendez assured me that the truckers would be pleased with the docking areas in Randolph Center. The basic docking areas at Lincoln Industrial Park are excellent too, and our new building could be constructed with the warehouse and docking facilities suitable for our operation.

Cost

Only minor modifications are needed at the Randolph Center location. At the Lincoln Industrial Park location, construction and landscaping will be required. Total estimated cost for the two locations is as follows:

Randolph Center

Office Modifications	\$ 14,000
Warehouse Modifications	55,600
Total Improvements	<u>\$ 69,600</u>
Purchase Price	\$400,000
Total Randolph Center Cost	<u>\$469,600</u>

Lincoln Industrial Park

Office Construction	\$200,000
Warehouse Construction	400,000
Land Purchase	60,000
Total Lincoln Costs	<u>\$660,000</u>

Note: Cost estimates are from Gramm, Weismann, and McCall, Associates, construction consultants

S. P. Irving

-4-

April 16, 1999

The Lincoln Industrial Park location would be \$60,000 over the established limit. Both location costs are estimated, and construction overruns could add considerably to the total cost for the Lincoln location. Costs could also be higher at the Randolph Center, but the risk is less.

Feasible Relocation Date

According to the realtors, the Randolph Center building is currently used for storage by the owners and could be vacated quickly upon closing. The closing time would be about 60 days, and an additional 60 days would be needed for modifications and cleaning. Sandrunne could probably move into the Randolph Center offices by September 1, 1999, well ahead of our February 2000 deadline.

The Lincoln Industrial Park location has more variables. The timetable must include design plans, site preparation, general contractor bids, license permits, and landscaping; therefore, completion is harder to predict. John Blackthorn estimates that Sandrunne could move in by January 1, 2000, but the risk of not making that deadline is somewhat high.

Conclusion and Recommendations

Sandrunne Enterprises has reached the point of moving to Kansas City to solidify its corporate position and expand its operation further. Both the alternative sites I investigated in North Kansas City have long-range advantages and meet the Company criteria. However, Lincoln Industrial Park involves a greater risk that both cost and deadline limits will be exceeded. Considering our need to move without hindrance, I recommend Randolph Center as our best choice. The location is excellent, the project cost is under budget, and the deadline can be met easily.

I have reports from our consultants that I would like to discuss further with you. My secretary will make an appointment for a discussion time.

IA:sd

c: M.L. Wilding

M.P. Todd

E.T. Fishman

R.D. Micelli

J.J. Warner