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**Small business administration impacts on the  
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Wironen, Alan Michael

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THESIS  
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SMALL BUSINESS ADMINISTRATION  
IMPACTS ON THE  
CONSTRUCTION INDUSTRY

A Special Research Problem

Presented to

The Faculty of the School of Civil Engineering  
Georgia Institute of Technology

by

Alan Michael Wironen  
11 1957

In Partial Fulfillment  
of the Requirements for the Degree of  
Master of Science in Civil Engineering



## Dedication

To Kimberly and Robyn, for their  
understanding and patience.





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## CHAPTER 1

### INTRODUCTION, OBJECTIVES

#### Introduction

The idea of freedom is basic to our form of government and way of life. Our country was founded on this simple idea, our military was formed to protect it and our economy runs on the principal of free enterprise. As free elections are to our governmental system, competition is to our economy. Competition is the key to a free enterprise system. When competition is lost, the innovations, economy and incentives which competition fosters are also lost.

Competition is the key ingredient for our industrial might and the driving force in our economy. Consider for example, a company which produces an essential consumer product. Without competition, that company could indiscriminately raise prices. Any business which attempts to market a similar product would be driven out of business. Note that without competition the business no longer has an incentive to produce improved products, operate the plant efficiently, or invest in new product research. On the other hand, with competition, the business is forced to improve production techniques, utilize state of the art equipment, continuously improve its product and introduce new products



to the consumer; failure to do so would increase his competitors percent of the market. Lack of competition impacts much more than just the one company that remains in business.

In a monopoly, higher priced products would use money that would have gone to other consumer goods. Eventually, businesses not in direct competition with the monopoly would also suffer. Unemployment would be driven up, and production would decline. This is obviously an extreme case, but it serves to illustrate the effect that lack of competition could have on the national economy. The economy of our country would suffer drastically without competition, but the country's very existence would also be threatened. The United States has maintained a technological, advanced society, which enables us to maintain our political system and way of life. This is partly due to the competition among the defense contractors to develop new products. For national security, the government tries to maintain a broad range of competitors. How does this provide national security? It ensures that no one company is the producer of any essential hardware or piece of equipment; which is only guaranteed through free and open competition.



The stated goal of the government is to ensure free and open competition in the United States markets (SBA,1953). The Small Business Administration (SBA), nevertheless, tries to promote competition through restricting it, or by providing an edge to a particular segment of the industry.

Through coordinated assistance programs, the SBA designates specific items to be purchased only from small businesses. They can also award contracts to specific minority or socially disadvantaged businesses without competition, and provide guarantee loans to businesses. The Congress realizes that the United States economy is made up of a majority of small businesses which employ over 50% of the work force, and produces over 40% of the Gross National Product (GNP) (Kleppe, 1974). It is essential that these businesses survive and are able to compete with larger industry. To ensure competition, the SBA provides the previously mentioned "Set-Aside" programs for small businesses, government guaranteed loans and training programs.

### Objectives

It is the purpose of this paper to explore the unique opportunities available to the small construction business owner, or prospective owner, for gaining a competitive edge over his big business rivals, and how the Small Business



Administrations policies have affected the industry by promoting new construction businesses, making capital available for the expansion of existing businesses, and providing management assistance and training.

A summary of the Small Business Act and its amendments is presented to provide some background on the authority of the Small Business Administration, its organization and objectives. A discussion of how effectively the SBA is meeting its objectives will be presented along with recommended areas of further study.

### Background

Unlike many areas in the business and construction fields, the particular effects the SBA policies have had on the construction industry have not been studied. The SBA does keep records on loans approved, contracts awarded etc, yet no set procedure has been established to record the effects that the Administration's policies have on a particular industry's failures, costs or the true effectiveness of SBA programs.

Additionally, very little information has been published on construction business starts and failures. Some limited statistics on the construction industry have been compiled by





the Small Business Administration and Dun and Bradstreet Corporation, but the statistics do not address specific policy impacts.. Dun and Bradstreet is a private corporation which maintains a database of business information, including business starts, failures and incorporation. Except for the limited information provided by Dun and Bradstreet and that obtained from the Small Business Administration database, all other information was compiled from interviews, miscellaneous publications, local banks, insurance companies, and business surveys.



## CHAPTER 2

### HISTORY

#### In the beginning

At the turn of the century, the American people stood at the threshold of industrial opportunity. The industrial revolution was just reaching its top speed. As the nation stepped into the new century, new ideas in industry, technology and science were carried along.

In the few years after the turn of the century, a flood of new inventions flowed out from the small laboratories and shops across the country. Aided by a new industrial concept ... mass production, the new inventions and older essentials could be produced quicker and at less cost. Fueled by inexpensive, immigrant labor, and with an abundance of raw materials, the industrial might of this country grew at a pace never imagined.

#### WWI and The Great Depression

During the rebuilding period following World War I, the business growth in this country momentarily bogged down. It wasn't until the great depression struck, on October 29, 1929, that the country suffered its first serious business



crisis. In three years over 10,000 businesses failed, with a corresponding loss of over \$450,000,000 (Dun and Bradstreet, 1962).

In the years following the stock market crash, the business growth rate had not only lost momentum, it had reversed itself. During the early days of the depression financial institutions were being bankrupt along with many of the worlds industrial giants. The financial institutions could no longer meet industry's monetary needs, and they themselves were in need of assistance. It was imperative that the Federal Government step in to assist, since no other institution could fill their needs.

The Federal Government created the Reconstruction Finance Corporation (RFC), in January 1932. The RFC initially only provided financial assistance to failing lending institutions. Later, the RFC was authorized to provide loans directly, or in participation with private lending institutions, to businesses of any size.

In the period prior to World War II, many significant events took place which helped shape the economic and political development of this country.



The evolution from an agricultural nation to an industrial one required a labor force to build new factories, it also needed laborers to work in the newly constructed factories. As has been mentioned, an influx of immigrants from Europe and Asia provided the needed workers. The United States' industries and the immigrants needed each other. Without laborers in the factories no goods would be produced, alternately, without the factories, the immigrants would have no income. In fact, it was the lure of economic and political opportunity which attracted the immigrants. Although the wages paid by the factories were significantly higher than the prevailing wages in the countries the labor force came from, it was still only slightly adequate to survive on. This situation forced many children, elderly and even the sick to work long hours in poor conditions.

Working conditions were barely tolerable, with poor lighting, temperature, noise, sanitation and ventilation. Workers could not fight for better conditions without the threat of losing their jobs. The established companies grew stronger, while competitors were forced out of business.

As big business emerged, along with it came the evils of economic concentration, monopoly and oligopoly. The forces causing the businesses to prosper eventually forced the government to take a more active role in the economy. Big





government began to evolve from a laissez-faire, states rights system, to what we have today. The first attempt by the Federal Government to control the forces moving the nations industries, was the Sherman Anti-Trust Act of 1890 (Chase, 1974).

After several failed attempts at unionizing, the labor movement was able to gain some concessions from management. Changes in the political atmosphere allowed Congress to pass effective legislation aimed at regulating business. These include the child labor laws, Clayton Act, minimum wage laws and several others. These laws served to provide more humane working conditions and limited the unfair competition used by the established businesses to force competitors into bankruptcy. They thus opened the United States to the small businessman and entrepreneur.

### Post WWII

After World War II, historians were able to look back at the events, which during the war, contributed to the allied army's dominance. Shortly after the attack on Pearl Harbor the Japanese must have realized the industrial might of the United States. The Japanese had apparently miscalculated the period of time it would take this country to recover from the devastation of the Pearl Harbor invasion. By the end of 1942,



the United States had achieved production rates which approached the national production capacity (Faulkner, 1968). Our country's ability to convert its industry from that of peace time production, and products, to the frenzied production of war material, was instrumental in our ability to win the war.

During the war, a large portion of the country's industrial might was made up of small businesses. Congress was concerned whether small business would be able to obtain the credit necessary to expand for war time demands. Congress was also worried, whether the economic concentrations caused by the increased demand would be disastrous for small business if government assistance was not provided. With these concerns in mind, Congress passed several pieces of legislation, the most significant of which was the Small Business Act of 1942, which created the Smaller War Plants Corporation (SWPC). The SWPC was to assist small business by making loans, certifying capacities and credit, secure contracts and subcontracts for the businesses, and lease or sell facilities and equipment to small firms. This was the first legislation enacted directly aimed at assisting small businesses, and was intended to be a temporary agency to be terminated at the end of the war.



Many other laws and programs were created during the war and shortly afterward to encourage hiring veterans, creating new businesses, and financing the war effort. One of the programs was the VA loan program; intended to provide loans to veterans for the purpose of starting or expanding a business. Because of the size and restrictive nature of the loans, virtually all of the loans went to small businesses.

### The SBA

By 1952, congress had the opinion that the RFC was now unable to perform its intended function because of influence peddling and political loan making (Senate Committee on Banking and Currency, 1953). The RFC was also making loans to large businesses. By this time the RFC was so wrought with corruption, the Republican party returned to power partly on its promise to dismantle the RFC. President Eisenhower's administration initiated a study, by leading small business advocates, to determine the merits of creating a new "small business administration". This study included the review of the RFC, SWPC, VA and other programs. These initial programs were primarily for providing financial assistance to businesses, but the study committee also found that,



"At the outset it is important to recognize that financing is often not the most acute problem of small business. Lack of technical and administrative knowledge is often more of a handicap to small business than its difficulty in obtaining credit and capital (U.S. Senate, 1953)."

So, in addition to providing financial assistance to small businesses, the new administration would provide counselling, training and management assistance. Congress passed the "Title II act of 1953" (15 USC chapter 14(a)) which created the Small Business Administration (SBA), on July 27, it was signed into law on July 30, 1953. This act later became known as the "Small Business Act of 1953." Its purpose was to make money more available to small businesses and entrepreneurs having little collateral or considerable debts. The money was provided directly by the Small Business Administration performing the function of a lending institution. The SBA was also to provide technical and managerial assistance to the small firms.

The rate of failure for small businesses did change drastically after the creation of the SBA, and new business starts changed from a decreasing trend to an increasing one. It is not known if the increased business starts was due to the assistance provided by the SBA, or simply because of a better business economy.





In 1958, Congress realized the unnecessary burden and conflict with private banking companies, of having the SBA loaning money directly to small business concerns. In response, the "Small Business Investment Act" was signed into law (15 USC 14(b)). The main purpose of this act was to remove the SBA from direct involvement in loan transactions. To do this, a system of licensing new and existing finance companies as, "Small Business Finance Companies" (SBFC), was developed. The SBFC's would now be the instrument to carry out the policy of the Small Business Investment Act. In passing the Small Business Investment Act, Congress Declared the Policy to be,

"to improve and stimulate the national economy in general and the small-business segment thereof in particular by establishing a program to stimulate and supplement the flow of private equity capital and long-term loan funds which small-business concerns need for the sound financing of their business operations and for their growth, modernization, and which are not in adequate supply...(15 USC 661)."

The SBFC's were provided shared capital and were authorized to offer loans to qualified small businesses at a rate, and term, conducive to business. Loans provided by banks under this act proved to be profitable for the lender since they involved limited risk, and the terms of the loan gave the lender the first option for financing addition debt to the



small business.

### The 1960's to the Present

Through the 1960's the Small Business Administration, and its guiding legislation, remained significantly unchanged, except for two major alterations: The Equal Opportunity Act of 1964 and, Executive Order No. 131971. Title IV of the Economic Opportunity Act was to provide loans to low income, socially disadvantaged individuals who could not secure credit at reasonable rates, for the purpose of establishing a small business, in high poverty, high unemployment areas (Chase, 1974). This new loan program was to be administered by the Small Business Administration. The second major event of the 1960's took place on October 13, 1971, when Executive Order No. 131971 was signed by President Nixon. This order stressed the importance of section 8(a) of the Small Business Act (15 USC 6). The executive order recognized that due to economic class, or social prejudice, entrepreneurs may not get the opportunity to start a business, or compete on an equal basis with other firms. To help remedy that problem, the Small Business Administration was to reserve contracts, that met specific criteria, for award to "socially and economically disadvantaged businesses" (15 USC 636).



After the women's movement of the early 1970's, Congress recognized that a significant portion of the U.S. economy was controlled by women owned companies. Executive Order No. 12138 was signed on May 18, 1979 by President Carter. This legislation acknowledged the increasing part women were playing in the United States economy, and recognized that women are sometimes discriminated against. It allowed the women to be recognized as socially disadvantaged, and therefore, eligible for set-aside contracts.

Many amendments to the Small Business Act and Small Business Investment Act (15 USC 14 (a) and (b)) have been passed since 1979, however, their significance when compared to those already discussed, is minor.



CHAPTER 3  
THE SMALL BUSINESS ACT  
AND  
RELATED LEGISLATION

The Small Business Act

Due, in part, to the rate of bankruptcies among small businesses in the early 1950's, and an increasing awareness of the role of small businesses in the U. S. economy; the Congress passed the "Title II act of July 1953". This act later became known as the Small Business Act of 1953 (15 USC 631). It is this act which eventually established the Small Business Administration and set its goals:

"The essence of the American economic system of private enterprise is free competition. Only through full and free competition can free markets, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgement be assured. The preservation and expansion of such competition is basic not only to the economic well-being but to the security of this Nation. Such security and well-being cannot be realized unless the actual and potential capacity of small business is encouraged and developed. It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small-business concerns in order to preserve free competitive enterprise...to insure that a fair proportion of the total sales of Government property be made to such





enterprises...(15 USC 631)."

The Small Business Administration's creation is actually authorized under 15 USC section 633 which states,

"In order to carry out the policies of this chapter there is created an agency under the name "Small Business Administration"...under the general direction and supervision of the President and shall not be affiliated with or be within any other agency...The administration may establish such branch and regional offices ...as may be determined by the Administrator..."

In order to achieve the goals set by the Small Business Act, and its later amendments, the SBA was given the authority to carry out the intent of the legislation. Ironically, that authority includes the power to restrict competition in specific circumstances (15 USC 637(a)).

The SBA has the authority to procure services, as a prime contractor for other federal agencies, and subcontract the work to minority owned businesses. They may also restrict contracts to competition among only small businesses which meet specified criteria. Surety bonds and loans may be provided to contractors directly by the Small Business Administration, or through cooperative agreements with



qualifying lending and surety institutions'. The Small Business Administration has also been given the responsibility of providing disaster relief to small businesses, assist agriculture related small businesses, socially disadvantaged businesses, and other businesses that are not dominant in their field.

### SBA Organization

The Small Business Administration is, as has been stated earlier, a large independent government Agency directly under the Executive Branch. All of the key SBA official are appointed by the President and confirmed by the legislature. These official include the Administrator, who reports directly to the President, the Chief Counsel for Advocacy and the Inspector General. The SBA headquarters in Washington also includes the Office of Congressional and Legislative Affairs, Public Communications, Management and Administration, Comptroller, Information Resources Management, Special Programs, Business Development, Finance and Investment, Innovation Research and Technology, Procurement Assistance, Minority Small Business, Capital Ownership, International Trade, and Hearings and Appeals.

---

1. The Small and Disadvantaged Business (SDB) program, Small Business Set-Aside program, bonding and loan programs will be discussed in greater detail in the following chapters.



The offices of Business Development, Procurement Assistance, Minority Small Business, and Public Communications have the most direct contact with the general public. These offices are responsible for providing management assistance and counsel to small businesses, managing the contract set-aside program, Administering the Small and Disadvantaged Business program, which includes determining who is, or isn't, eligible for the program; and Public Communications office which provides the official interface between the general public and the administration. Like most Government organizations, the SBA has several levels of administration.

Under the national headquarters of the Small Business Administration, the country is broken into 13 regions, with their organizations essentially duplicating that of the Washington organization. Under each regional office, the SBA is broken into geographic districts, usually consisting of a single state or territory. These districts also have organizations similar to the parent regional office, except, the districts do not have a procurement assistance program. Procurement assistance is a national program managed at the regional level.



In addition to the regional and district offices, a Procurement Center Representative (PCR) is assigned to each major federal procurement activity. It is the PCR's responsibility to assist small businesses in locating business opportunities and, through review of purchase requirements, restrict purchases to competition among small business firms. The PCRs act as a liaison between the procurement centers and the SBA, and take the role of small business advocate at the local level.

Each office, location and level, within the Small Business Administration, works independently within its specialty (e.g. Business Development works independent of the Procurement Assistance people, within the same district and region), until a problem or specific assistance is required of another office (Parker, 1988).

#### Relationship with other Agencies

Since the Small Business Administration is responsible for carrying out the government's small business policies, it must be able to direct the procurement actions of the other federal agencies. The SBA obtained that authority from the Small Business Act;





"For the purpose of preserving and promoting a competitive free enterprise economic system. Congress hereby declares that it is the continuing policy and responsibility of the Federal Government to use all practical means and to take such actions as are necessary, consistent with its needs and obligations and other essential considerations of national policy, to implement and coordinate all Federal department, agency, and instrumentality policies, programs, and activities in order to: foster the economic interests of small business; insure a competitive economic climate conducive to the development, growth and expansion of small businesses; establish incentives to assure that adequate capital and other resources at competitive prices are available to small business; reduce the concentration of economic resources and expand competition; and provide an opportunity for entrepreneurship, inventiveness, and the creation and growth of small business (15 USC 631(a))."

Through the Federal Acquisition Regulations (FAR) and related legislation, (Such as the Defense Federal Acquisition Regulations (DFAR) and Surface Transportation Act of 1982), the Small Business Administration is given specific authority to set procurement goals for each federal agency, and regulate their contracting actions within the authority of the SBA programs. The FAR reads,

"This part implements the acquisition-related sections of the Small Business Act (15 U.S.C. 631 et seq.), applicable sections of the Armed Services Procurement Act (10 U.S.C. 2301 et seq.), the Federal Property and Administrative Services Act (41 U.S.C. 252), and Executive Order 12138, May 18, 1979 (48 CFR 19.000 (a))."



The text of this legislation goes on to state that the law covers the following actions, when the contracts takes place within the United States, its territories and possessions, Puerto Rico and the Trust Territories of the Pacific Islands:

1. The determination that a concern is eligible for participation in the programs identified in this part;
2. The respective roles of executive agencies and the Small Business Administration (SBA) in implementing the programs;
3. Setting acquisitions aside for exclusive competitive participation by small business concerns;
4. The certificate of competency program;
5. The subcontracting assistance program;
6. The "8a" program<sup>1</sup>;
7. The use of women-owned small business concerns<sup>2</sup>.

In simple terms, the FAR says that any policy established for the enhancement of competition, promotion of small business, and administered by the Small Business Administration, will apply to all federal acquisitions, except at locations outside of the United States and its territories.

---

1. Refers to the Small and Disadvantaged Business (SDB) program, which derives its informal name from where it is found; section 8(a) of the Small Business Act. This program may also be incorrectly referred to as the Minority Business Set-Aside program.

2. The SBA no longer has a set-aside program for woman owned businesses. Woman owned businesses are no longer considered a minority and therefore, do not qualify as socially disadvantaged under the Small Business Act (Parker, 1988).



## Small Business Defined

The Small Business Administration does not have a single definition of what constitutes "small", when referring to a business. In general, a small business is defined as an enterprise, "which is independently owned and operated and which is not dominant in its field of operation. In addition ...the Administrator, (The Small Business Administration) in making a detailed definition, may use these criteria, among others: Number of employees and dollar volume of business..." (15 USC 632). The SBA defines different size standards for each industry. For most industries, the size standard is based on the Standard Industrial Classifications (SIC) defined for each industry by the Department of Labor. For many industries the size standard is based on both gross revenue and employment, however, for the construction industry, the size standard is based only on gross receipts. The number of employees is a measure of the average employment over the last 12 months, including full and part time employees. The annual receipts, are defined as the average gross receipts received over the previous three years, less sales of fixed assets, transfers between affiliates and taxes remitted. All construction falls into division C of the Standard Industrial Classification system, and reproduced from (48 CFR 19.102) in table (3.1).



Construction Industry  
Standard Industrial Classification Codes

| SIC                                                                                 | DESCRIPTION                                                                                             | SIZE    |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------|
| MAJOR GROUP 15-BUILDING CONSTRUCTION-GENERAL CONTRACTORS<br>AND OPERATIVE BUILDERS  |                                                                                                         |         |
| 1521                                                                                | General Contractors-Single Family Houses                                                                | \$17.00 |
| 1522                                                                                | General Contractors-Residential Buildings<br>other than Single Family.....                              | \$17.00 |
| 1531                                                                                | Operative Builders.....                                                                                 | \$17.00 |
| 1541                                                                                | General Contractors-Industrial Buildings<br>and Warehouses.....                                         | \$17.00 |
| 1542                                                                                | General Contractors-Nonresidential<br>Buildings, Other than Industrial<br>Buildings and Warehouses..... | \$17.00 |
| MAJOR GROUP 16-CONSTRUCTION OTHER THAN BUILDING<br>CONSTRUCTION-GENERAL CONTRACTORS |                                                                                                         |         |
| 1611                                                                                | Highway and Street Construction.....                                                                    | \$17.00 |
| 1622                                                                                | Bridge, Tunnel and Elevated Highway<br>Construction.....                                                | \$17.00 |
| 1623                                                                                | Water, Sewer, Pipe Line, Communication<br>and Power Line Construction.....                              | \$17.00 |
| 1629                                                                                | Heavy Construction, Except Dredging,<br>N.E.C.....                                                      | \$17.00 |
| 1629                                                                                | Dredging and Surface Cleanup Activities.....                                                            | \$ 9.50 |

TABLE (3.1)





Construction Industry  
Standard Industrial Classification Codes

| SIC                                                   | DESCRIPTION                                                       | SIZE    |
|-------------------------------------------------------|-------------------------------------------------------------------|---------|
| MAJOR GROUP 17-CONSTRUCTION-SPECIAL TRADE CONTRACTORS |                                                                   |         |
| 1711                                                  | Plumbing, Heating (Except Electric), and<br>Air Conditioning..... | \$ 7.00 |
| 1721                                                  | Painting, Paper Hanging, and Decorating.....                      | \$ 7.00 |
| 1731                                                  | Electrical Work.....                                              | \$ 7.00 |
| 1741                                                  | Masonry, Stone Setting, and Other<br>Stone work.....              | \$ 7.00 |
| 1743                                                  | Plastering, Drywall, Acoustical, and<br>Insulation Work.....      | \$ 7.00 |
| 1751                                                  | Carpentering.....                                                 | \$ 7.00 |
| 1752                                                  | Floor Laying and Other Floor Work.....                            | \$ 7.00 |
| 1761                                                  | Roofing and Sheet Metal Work.....                                 | \$ 7.00 |
| 1771                                                  | Concrete Work.....                                                | \$ 7.00 |
| 1781                                                  | Water Well Drilling.....                                          | \$ 7.00 |
| 1791                                                  | Structural Steel Erection.....                                    | \$ 7.00 |
| 1793                                                  | Glass and Glazing Work.....                                       | \$ 7.00 |
| 1794                                                  | Excavating and Foundation Work.....                               | \$ 7.00 |
| 1795                                                  | Wrecking and Demolition Work.....                                 | \$ 7.00 |
| 1796                                                  | Installation or Erection of Building<br>Equipment, N.E.C.....     | \$ 7.00 |
| 1799                                                  | Special Trade Contractors, N.E.C.....                             | \$ 7.00 |

Notes: Size standards preceded by a \$ are in millions of dollars

N.E.C.: Not Elsewhere Classified.

Mining and Quarrying of non-metallic minerals, except fuels, are included under major group 14. All SICs under this grouping, related to the construction industry, have size standards of 500 employees.



## CHAPTER 4

### SMALL BUSINESS SET-ASIDE PROGRAM

#### What is a Small Business Set-Aside

The Small Business Administration, relies to a great extent, on the small business set-aside program to accomplish its aim of assuring the preservation and expansion of small business. The set-aside program attempts to ensure small business receives its "fair proportion" of the federal procurement dollar (15 USC 631). To the knowledge of the author, none of the statutes nor procurement regulations define what is meant by "a fair proportion" of government procurement. One training manual described it as follows:

"the amount of contract awards small business would receive if all the existing techniques for aiding and assisting small business were conscientiously applied by all personnel. If all solicitations susceptible to set-aside were in fact set aside, if small businesses were solicited in every case where they had the capability, and if no technical or other barriers were improperly utilized...(NAVMAT, 1985)."

The small business administration acknowledges that there are certain contracts, which because of size, complexity, bidding climate, or other reasons; big business is not interested in competing (Pitman, 1988). The proportion of these contracts



is relatively small, and changes from day to day due to; fluctuations in the economy, the large firm's work load and, the business goals of a particular firm. The government, therefore, tries to stabilize the availability of work for the smaller firms by setting aside contracts that could be successfully competed among the smaller firms. Before we can discuss how a contract is set aside, we must first define what a Small Business Set-Aside is.

### Set-Aside Defined

The latter portion of chapter 3 provided the reader with the definition of a small business, as it relates to most of the SBA legislation. Those size standards apply to firms participating in the Set-Aside program, however, some of the programs have different, specific, size limits that differ from those listed in table (3.1). One such program is the bond program presented in chapter 6.

Small business, as it relates to the Set-Aside program, has been defined, but the meaning of set-aside has not been explained. A set-aside is a contract, which because of the scope or any of a number of criteria, has been designated for award to only a qualifying small business. The contract may be designated as one of two types of set-asides; complete set-aside and partial set-aside.



The complete set-aside, as the name implies, reserves the entire contract for bidding, by small businesses. While the partial set-aside may be divided into smaller segments, and awarded as two or more contracts. In order to make a project into a partial set-aside it must first meet several conditions:

1. The contract must be separable into two or more economic production runs, lots, or complete usable facilities.
2. There must be two or more responsible small businesses who could furnish a severable portion of the contract.
3. Two or more small business offerors must bid, otherwise, a partial set-aside will not be made.

With the partial set-aside, the size of the portion of the contract set-aside, will be only large enough to make maximum use of the capacity of the small business bidding on the contract. The remainder of the project is advertised as an unrestricted contract<sup>1</sup>, open to bidding by any size firm. Once the unrestricted segment of the contract has been awarded, the set-aside portion is priced according to the highest unit price in the non set-aside segment (NAVMAT, 1985). The number of set-aside and partial set-aside contracts awarded each year, is somewhat determined by the

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1. Unrestricted competition is often referred to as full and open competition.





established agency goals, and the criteria which govern what contracts are to be set aside.

## Goals

Through the passage of the Small Business Act, Congress obligated itself to ensure the country's small businesses received their "fair share" of the federal contract dollar. To do this the SBA imposed upon itself general goals to strive for. The SBA was also given the responsibility of coordinating and assisting each federal agency in establishing detailed, contracting targets. This responsibility was provided through 15 USC 644 (g), which states:

"The head of each Federal agency shall, after consultation with the Administration, establish goals for the participation by small business concerns, and by small business concerns owned and controlled by socially and economically disadvantaged individuals..."

With the enactment of the National Defense Authorization Act for 1987 (Public Law 99-661), the Department of Defense (DOD) was directed to establish a goal for fiscal years 1987-1989, of awarding 5% of all DOD procurement to small business (SBA, 1987)<sup>1</sup>. Table (4.1) provides a breakdown, by major claimant<sup>2</sup>,

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1. Fiscal Year, abbreviated FY in most federal documents, run from October first of one year through September thirtieth of the following year.



of the goals set for the Navy, by the Assistant Secretary of the Navy, for fiscal years 1987-1988 (Pyatt, 1987). Table (4.1) is a good example of the goals each of the agencies within the Federal Government must develop. It is interesting to compare the relative goals set for the various major claimants. Naval Facilities Engineering Command, responsible for shore structures acquisition and maintenance, has a goal of 75% for small business prime contracts and 56% for set-asides, while Naval Supply has 29.8% and 15.5% respectively.

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2. Major claimant is the top level within a branch of a military organization having responsibility for a specialized function. For example, the Naval Facilities Engineering Command (NAVFAC), is responsible for all facility planning, programming and maintenance. Naval Supply (NAVSUP), is responsible for procurement, storage and distribution of all general commodities. The major claimant is also fiscally responsible for the subordinate commands below him.



FISCAL YEAR 1987-1989  
SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS  
CONTRACTING GOALS

| <u>ACTIVITY</u>     | <u>SMALL BUSINESS PRIME CONTRACT<sup>1</sup></u> | <u>SMALL BUSINESS SET-ASIDE<sup>1</sup></u> | <u>SMALL BUSINESS SUBCONTRACT<sup>2</sup></u> |
|---------------------|--------------------------------------------------|---------------------------------------------|-----------------------------------------------|
| MARINE CORPS        | 40.5%                                            | 23.5%                                       | N/A                                           |
| NAVFAC <sup>3</sup> | 75.0%                                            | 56.0%                                       | 55.0%                                         |
| NAVAIR              | 1.7%                                             | 0.6%                                        | 25.7%                                         |
| SPAWAR              | 12.5%                                            | 2.5%                                        | N/A                                           |
| NAVSEA              | 7.0%                                             | 4.5%                                        | 39.0%                                         |
| NAVSUP              | 29.8%                                            | 15.5%                                       | 39.0%                                         |
| ADPSO               | 17.0%                                            | 4.0%                                        | N/A                                           |
| JCMPO               | 0.4%                                             | 0.1%                                        | N/A                                           |
| SSPO                | 0.3%                                             | 0.1%                                        | N/A                                           |
| MSC                 | 15.0%                                            | 6.5%                                        | N/A                                           |
| ONR                 | 43.0%                                            | 3.6%                                        | 12.0%                                         |
| TOTAL NAVY          | 15.2%                                            | 8.7%                                        | 30.9%                                         |

Table (4.1)

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1. Presented in total dollars awarded by the Navy to United States business firms.

2. Presented by percent of total subcontractor dollars awarded by large business prime contractors on Navy contracts.

3. NAVFAC refers to the Naval Facilities Engineering Command. NAVFAC is the command within the Navy responsible for all Navy and Marine Corps construction projects and most facilities maintenance.



FISCAL YEAR 1987-1989  
SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS  
CONTRACTING GOALS

| <u>ACTIVITY</u>     | <u>SMALL<br/>DISADVANTAGED<br/>BUSINESS<br/>PRIME CONTRACT<sup>1</sup></u> | <u>SMALL<br/>DISADVANTAGED<br/>BUSINESS<br/>SUBCONTRACTS<sup>2</sup></u> |
|---------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------|
| MARINE CORPS        | 11.4%                                                                      | N/A                                                                      |
| NAVFAC <sup>2</sup> | 6.4%                                                                       | 26.4%                                                                    |
| NAVAIR              | 0.3%                                                                       | 4.6%                                                                     |
| SPAWAR              | 5.3%                                                                       | N/A                                                                      |
| NAVSEA              | 3.8%                                                                       | 4.5%                                                                     |
| NAVSUP              | 7.7%                                                                       | 18.3%                                                                    |
| ADPSO               | 2.9%                                                                       | N/A                                                                      |
| JCMPO               | 0.06%                                                                      | N/A                                                                      |
| SSPO                | 0.02%                                                                      | N/A                                                                      |
| MSC                 | 0.2%                                                                       | N/A                                                                      |
| ONR                 | 5.5%                                                                       | 1.2%                                                                     |
| TOTAL NAVY          | 5.0%                                                                       | 5.0%                                                                     |

TABLE (4.1) Cont'd





## Set-Aside Criteria

Previously in this chapter, it was mentioned that the number of contracts set aside is partially determined by the agency's small business goals. The factors which play a more important role in determining if a contract will be set aside are:

1. Estimated cost of construction.
2. Demonstrated interest in the contract by small contractors.
3. Scope and complexity of the work.
4. Competency of the bidding contractors.
5. Receipt of responsive offers.

The estimated cost of construction is undoubtedly the first criteria considered in determining if a contract will be set-aside. The laws regulating procurement by the Federal Government, until recently, set a dollar value of \$10,000 as the threshold for mandatory small business set-asides. The legislation reads as follows:

"Each contract for the procurement of goods and services which has an anticipated value of less than \$10,000 and which is subject to small purchase procedures shall be reserved exclusively for small business concerns... (15 USC 644(j))."



The threshold amount for mandatory set asides is now \$25,000 as amended by Public Law 99-661 (SBA, 1987).

Contracts between \$25,000 and \$2,000,000, are usually set-aside. It is the exception rather than the rule, not to set a contract of this dollar value aside, for a contract of this size to be solicited on a unrestricted basis, the contracting agency must provide written justification, which is subject to the concurrence of the Small Business Administration<sup>1</sup> (Daugherty, 1988). Contracts over \$2,000,000 are reviewed on a case by case basis for set-aside determinations. If two or more reasonable offers can be expected from small business concerns, the contract will be reserved for the set-aside program.

A contract may be set aside because a contractor has demonstrated some interest in the project. This criteria is usually more prevalent when dealing with 8(a) contracts. A contractor may demonstrate interest in several ways. He may inquire about a particular contract, either to an SBA procurement assistance official, or the contracting officer.

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1. The SBA has final authority in determining both the small business size standard for a contract and the decision to set a contract aside (13 CFR 121.11, and 48 CFR 19.505). This paper presented size standards in table (3.1) for various construction related fields. The standards presented may be altered by the SBA within and among programs. For instance, different size standards exist for the set-aside program, SBA loans, and Small Business Investment Corporation.



He may include his company name on the contracting officers bidders list, or he could enroll in the SBA Procurement Automated Source System (PASS).<sup>1</sup>

The PASS system is a computer database which lists company names, products, location and many other business statistics. The PASS database can be used much like a computerized bidders list and source guide, for determining what contracts might be interested in.

The scope and complexity of the work plays a big role in the decision to set aside a contract. The contracting officer must determine if he can reasonable expect to have two or more bidders. The complexity and extent of the work will eliminate many of the otherwise interested contractors. The complexity criteria ties closely to the fourth criteria listed. If a bid is received from a firm that has had a questionable performance history, or limited experience, the contracting officer may require a competency determination prior to awarding the contract.

The Small Business Administration is empowered, through 48 CFR 19.6, to issue Certificates of Competency (COC) to contractors who have been deemed non-responsible, by a

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1. Refer to Chapter 7 and Appendix H.



contracting officer. The Certificate of Competency is a certificate,

"issued by the Small Business Administration (SBA) stating that the holder is responsible (with respect to...capability, competency, capacity, credit, integrity, perseverance and tenacity) for the purpose of receiving and performing a specific Government contract (48 CFR 19.6)."

The COC is only issued after a thorough review of the contractors past performance, financial status<sup>1</sup>, business experience, and other areas, of concern to the contracting officer or the SBA, including personal integrity of the firms owners, managers and board of directors.

Item five in the list of set aside criteria was, receipt of responsive offers. This includes not only offers that have met the administrative requirements of the contract, such as bid bonds, timeliness etc., it also includes the bottom line cost of the bid. The contracting officer will determine a bid to be non-responsive, if it exceeds what the contracting officer determines is a fair market price<sup>2</sup>.

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1. The SBA will not issue a COC to contractors who exceed \$3.5 million in gross receipts or who have debt to working capital ratios in excess of 10:1.

2. Often taken as 110% of the government estimate. For military contracts awarded under the 8(a) program the Defense Acquisition Regulations (DFAR) define a reasonable price as being 10% in excess of the government estimate (DFAR 19.7000).





Contracts in excess of \$10,000 require that a small business contracting plan be submitted, and that all subcontracts include a minority subcontractor clause (15 USC 637). Failure to provide such a plan with the bid documents may also constitute a finding of non-responsiveness.

#### Qualification for Set-Aside Contracts

A small business may become eligible for set-aside contracts through a self-certification process. The FAR states,

"To be eligible for award as a small business, an offeror must represent in good faith that it is a small business at the time of written self certification... (48 CFR 19.301)"

The self certification's reference to, "small business," requires that the firm meet the size standards specified in the particular contract's bidding documents. To make the certification procedure simple, and encourage maximum participation in the set-aside program, the FAR requires



that the contracting officer accept the contractors self certification:

"The contracting officer shall accept an offeror's representation in a specific bid or proposal..." (48 CFR 19.301 (b))

In the event the certification is challenged, or the contracting officer has reason to question the contractors ability to perform the work, the SBA has established formal grievance procedures.

#### Award Priority

Set-Aside contracts are awarded to small business on a priority basis, in order to maximize the potential social benefits of government contract. The award priorities are based on price, social class of the offeror, economic condition, and unemployment rate in his primary area of operation. Assuming several bids have been received and all are found to be responsive, responsible bidders, the award will be determined by the priorities set by 15 USC 644 (e) and (f). The priorities are:

(1) small business concerns located in labor surplus areas, on the basis of total set-aside;

(2) small business concerns, on the basis of total set-aside;



(3) small business concerns located in a labor surplus area, on the basis of partial set aside;

(4) small business concerns, on the basis of partial set-aside.

Contractors not meeting the small business criteria will be awarded contracts based on total set-aside, in the order defined in 15 USC 644 (f):

(1) contractors who are not small business;

(2) and will perform a substantial proportion of the production on those contracts and subcontracts within areas of concentrated unemployment.

In addition to the Small Business Set-Aside program, the SBA has established another similar program designed primarily to assist "socially and economically disadvantaged individuals."

### Chapter Summary

The Small Business Set-Aside program is the primary means by which the SBA attempts to ensure small businesses receive their "fair share" of the Federal procurement dollar. Set-Aside contracts are those which have been selected by the contracting agency, the SBA, or a particular contractor, and for which the agency believes it will receive at least two



reasonable offers from small businesses.

Small businesses become eligible for participation in the Set-Aside program through a self certification process. In this process they represent, in good faith, that they are a small business. By law, the contractor's representation, must be accepted by the contracting officer.

Through establishing small business contracting goals, each government agency ensures adequate contracts are available for small businesses to participation. The contracts will then be competitively bid, but only among small businesses, with contract awards being made according to, bid price and level of potential social or economic benefit which may result.





## CHAPTER 5

### THE 8(a) PROGRAM

#### Overview

Since the early 1940's, The Federal Government has attempted to assist disadvantaged individuals start and manage small businesses.. The principal aim of these early programs was to employ the "hard core unemployed", rather than the development of businesses among them. Even with the passage of Title IV of the Equal Economic Opportunity Act, in 1964, federal assistance was still aimed at providing loans to firms who will provide employment for "the long term unemployed (Garvin, 1974)." It wasn't until early 1969 that government assistance changed its emphasis from employing the unemployed, to developing and assisting small businesses who do business in areas of underemployment. This swing in emphasis was due principally to the efforts of the new SBA administrator, Mr. Thomas Kleppe.

At the time of Mr. Kleppe's appointment to the SBA, minorities comprised more than 17% of the nation's population, yet they owned only 3.9% of the United States businesses (Census, 1971). Of these small businesses, over 70% were located in large urban areas and accounted for only 2% of this country's small business receipts (Garvin, 1974). Under the



new administrator, revived importance was placed on the 8(a) program and its use in assisting businesses conducting work in socially and economically disadvantaged areas. The focus on economically and socially disadvantaged areas was because of the statistics previously mentioned, and a study of the Mexican-American community (Grebler, 1971). The study, was able to develop a definition, on which an entire group could be considered socially disadvantaged:

"A category of people, then, can be defined as disadvantaged if society at large has acted by omission or commission to hinder a disproportionate number of its members in the development of their individual abilities."

Mr. Kleppe set a goal for the SBA that would speed up the formation of minority owned businesses. He intended to increase the formation of minority owned business to an annual rate of 10,000 per year by June 1969 and to 20,000 the following year. This goal would be achieved by lending money through nations banks with SBA guarantees, and through management assistance provided by the SBA.

### The 8(a) Program

The 8(a) program, officially known as the Small and Disadvantaged Business Program, is a social program,

"to assist small business concerns owned and



controlled by socially and economically disadvantaged persons to achieve a competitive position in the market place (NAVMAT, 1985)."

Socially and economically disadvantaged businesses are assisted through a prime contractor/subcontractor relationship with the Federal Government. The SBA receives its authority to enter into contracts with other Federal Agencies through the Small Business Act. The legislation reads:

"It shall be the duty of the Administration and it is hereby empowered, whenever it determines such action is necessary or appropriate-

(A) to enter into contracts with the United States Government and any department, agency, or officer thereof having procurement powers obligating the Administration to furnish articles, equipment,...or to perform construction work (15 USC 637)<sup>1</sup>."

Under the 8(a) program contracts are awarded to qualifying small businesses without competition. The contractors are selected according to their capabilities and the complexity of the contract.

A majority of business failures occur during the early years of a business' life because of management and organizational problems (Dun and Bradstreet, 1984). The SBA

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1. Administration refers to the Small Business Administration.



assists businesses through this rough period by providing management assistance, experience, and self confidence. In addition, the 8(a) program provides work for qualifying contractors with the potential of a reasonable profit with minimal risk.

As a precondition to receiving any management assistance, financial assistance, or participate in the 8(a) program, the contractor is required to develop a business plan<sup>1</sup>. The business plan ensures the contractor has completely thought out what he intends to accomplish in business. Further, it proves to the lending agency and SBA that he has realistic expectations of his demand and the marketplace. The business plan is periodically referred to, and reviewed, during the 8(a) participation period.

Contractors may participate in the 8(a) program for a maximum of seven years. The clock begins ticking after the first contract is awarded to the contractor. At the start of the participation period, the contractor may be given a high percentage of Government contracts, the proportion will be

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1. One of the strategies employed by the SBA, for new firms and those with limited experience, is to fill the firm's portfolio with 8(a) contracts that meet the objects of the firm's business plan. As the firms gain experience, they are encouraged to secure contracts from outside of the 8(a) program, thereby reducing their independence on the 8(a) program. (Pittman, 1988).





reduced as the contractor progresses through his business plan. If the contractor accomplishes his business plan objectives, the business plan will be revised to include higher goals, or the contractor will be "graduated" from the program.

#### 8(a) Contract Identification

Contracts performed under the 8(a) program are selected in the same manner as those for the set-aside program. The contracts may be requested by a qualifying firm after learning of the contract, but usually, the contract is selected by the contracting agency for award through the 8(a) program. On occasion, the Procurement Center Representative (PCR)<sup>1</sup> will identify contracts that should be set aside or awarded through the 8(a) program. These contracts will then be brought to the contracting agency's attention. If the contracting officer concurs with the PCR's recommendation, the contracts will go to the SBA for award to qualifying subcontractors.

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1. The duties of the PCR were briefly discussed in chapter 3.



## Contractor Qualification

In order to receive contracts under the 8(a) program, a contractor must first be a small business. As in the set-aside program, the firm interested in receiving government contracts self certifies itself in regard to size, however, this self certification is subject to the verification of the SBA (13 CFR 121.4). The certification is also for a specific Standard Industrial Code (SIC) and contract. Each time a contractor is considered for award of another contract, his size must again be certified and verified by the SBA (13 CFR 121.4).

In addition to meeting the specified size standard a firm must be determined to be both financially and socially disadvantaged. As it relates to the 8(a) program, a socially and economically disadvantaged small business concern is a firm:

"(A) which is at least 51 per centum owned by one or more socially and economically disadvantaged individuals; or, in the case of any publicly owned business, at least 51 per centum of the stock of which is owned by one or more socially and economically disadvantaged individuals; and  
(B) whose management and daily business operations are controlled by one or more of such individuals (15 USC 637)."



Socially disadvantaged individuals are defined as "those who have been subjected to racial or ethnic prejudice or cultural bias..." because of their identification with a particular social group (13 CFR 121.105). The SBA determines what groups will be included in this category based on four criteria:

1. The group must have suffered the effects of discriminatory practices over which it had no control,
2. The group must have generally suffered from the prejudice or bias,
3. The existence of the conditions in items (1) and (2) above, must have resulted in economic deprivation,
4. The conditions listed in items (1) through (4) must have produced business impediments for members of the group for which they had no control, and which are not common to other small businesses in the same industry (13 CFR 124.105).

Groups included in this category are listed in 13 CFR 124.102 paragraph (b), they include: Black Americans, Hispanic Americans, American Indians, Eskimos, Native Hawaiians, Asian Pacific Americans<sup>1</sup>.

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1. Asian Pacific Americans include persons with origins from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, Laos, Cambodia, Taiwan, Northern Mariana Islands, and Trust Territory of the Pacific Islands. Other groups may be included after consideration by the SBA. Procedures for consideration are included in 13 CFR 124.105 (d).



Economically disadvantaged individuals are defined, first, as "socially disadvantaged individuals..." They must also be individuals whose ability to compete in the market place has been, "impaired due to diminished capital and credit opportunities (13 CFR 124.106)." The status of the individual or firm applying for SBA assistance is analyzed in regard to his personal financial situation, his business financial status, and access to credit and capital; before establishing his status as an economically disadvantaged individual.

The 8(a) program considers the financial status of the business owner and of the business because,

"it is not the intent of the 8(a) program to allow program participation to concerns owned and controlled by socially disadvantaged individuals who have accumulated substantial wealth, have unlimited growth potential and have not experienced or have overcome impediments to obtaining access to financing, markets and resources (13 CFR 124.107)."

Additionally, the firm being considered for a contract award must also be able to perform the contract.

"To be eligible to participate in the section 8(a) program, an otherwise eligible applicant concern must be determined to be one that with contract, financial, technical and management support will be able to successfully perform...(13 CFR 124.107)."





Lastly, the firm must also show that with continuing SBA support, the business will have a reasonable prospect for success at the end of the seven year term of 8(a) participation. So, even if a new firm hasn't had any previous contracts it may still participate in the program, if they can demonstrate a "reasonable prospect for success." A firm may be judged to have reasonable potential, if the firms principals have business experience or experience in the particular field they now intend to enter (Pittman, 1988).

Once a contractor has been qualified for participation in the 8(a) program, he becomes eligible to receive SBA subcontracts. When a contract has been referred to the SBA for contracting through the 8(a) program, the SBA attempts to match the demands of the project with the specific capabilities of a qualified contractor<sup>1</sup>.

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1. Many of the contracting officers interviewed for this paper indicated that SBA selection of contractors was an area of great concern. They felt the SBA did not review the contractors capabilities sufficiently, or did not adequately consider the administrative burden placed on the contracting officer. The GAO supports these contracting officer's opinions in its 1981 report, **The SBA 8(a) Procurement Program - A Promise Unfulfilled** (GAO, 1981). These same contracting officers indicated they seldom have termination or default problems with 8(a) contractors.



## Contractor Selection

The contractors considered for award of a contract must first be classified as small business under the SIC code for that particular contract. A review of the firms financial data, experience and business plan, is then undertaken by the SBA. The SBA attempts to match the contract and contractor to try to compliment the firms business plan.

The contractors ability to be bonded is important in many instances, so along with looking at the ability of the firm to finance and manage the project, the SBA also reviews the firms bonding capacity. In special instances, if the firm cannot be bonded, the SBA can waive that requirement.

"no small business concern shall be required to provide any amount of any bond as a condition of receiving any subcontract...if the Administrator determined that such amount is inappropriate for such concern in performing such contract (15 USC 637(2))."

The requirement for bonds may only be waived if:

1. The SBA takes appropriate measures to protect material suppliers and persons providing labor to the firm receiving SBA assistance,
2. The SBA assists a small business receiving 8(a) benefits, to develop financial and other capabilities as necessary to receive the required bonding,



3. No surety firm will issue the required bonds even with the Title IV guarantee<sup>1</sup>, or

4. The firm is a start up firm and has not been conducting business under the 8(a) program for more than one year (15 USC 637 (4)).

In addition to the qualification criteria already outlined, for construction contracts, the contractor receiving the award must have its principal place of business within the administrative region of the SBA office giving the award (15 USC 637).

### Contract Award

After the contractor is chosen, both the contractor and contracting officer are notified of the selection. Barring any grievances, the contract price will be negotiated and the contract awarded to the selected subcontractor.

The Small Business Administration is directed by 15 USC 637, as to what methods will be employed for awarding contracts to small businesses. Under part (c) of the same

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1. Title IV refers to the Loan and Surety bond program of the Small Business Act. This program is outlined in chapter 6 of this paper.



legislation, the SBA is authorized to,

"...arrange for the performance of such procurement contracts by negotiating or otherwise letting subcontracts to socially and economically disadvantaged small business concerns'..."

The negotiations are performed by Members of the Minority Small Business and Capital Ownership Development (MSBCOD) staff on behalf of the small business receiving the award<sup>2</sup>. The contractor will be present during the initial negotiation, but usually does not actively participate until later negotiations. The aim of the negotiation is to settle on a mutually agreeable price, that, additionally, is fair and reasonable. For all Federal 8(a) acquisitions, a price within ten percent of the Government estimate is considered fair and reasonable (FAR 19.806-2).

As has already been mentioned, the SBA may take on several roles in addition to that of the prime contractor. During the life of the contract the SBA, for brief periods,

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1. Note that the authorization is only to socially and economically disadvantaged small businesses.

2. Although the SBA is performing the function of a prime contractor, the negotiation is carried out between the contacting agency and the SBA, yet it is the subcontractors price that is negotiated. The contractual parties in the negotiation are not the SBA and the contracting agency, they are the SBA and the subcontractor.





may assume the role of a contract administrator or project manager. Each of these contracting functions could be accomplished using any of the numerous resources available to the SBA. The extent to which the SBA will perform these functions, or the method employed, largely depends on the particular contract, capability of the contractor, difficulties the contractor is experiencing, and extent of time the contractor has been in the 8(a) program. Unlike the usual Prime/Sub contractor relationship, the SBA becomes directly involved in the subcontractors operation when difficulties are experienced, hence, the multiple roles of the SBA. One must understand, the ultimate objective of the Small Business Administration is to assist small businesses. This objective is pursued by the SBA, regardless of the contractual relationship with the Government.

In almost any other agency, a multiple contracting role, such as the SBA's would undoubtedly be considered a conflict of interest. Yet, it is the "duty" of the SBA to receive contracts from other agencies and award them to private contractors, without competition. At the same time the SBA must ensure the contractor profits from the contract, and still the Government must receive the work for a fair and reasonable price. In addition, if the contractor has difficulty on the contract, the SBA will provide management assistance and even direct management of the work if



necessary. All of these topics will be discussed in more detail later in this chapter and in succeeding chapters.



## CHAPTER 6

### CONSTRUCTION RELATED LOANS AND BONDING

#### The SBA Guarantee Loan and Direct Loan

The Small Business Administration is given authority through 15 USC 636, to issue loans,

"to the extent and in such amounts as provided in advance in appropriation acts...for plant acquisition, construction, conversion or expansion...to any qualified business concern (15 USC 636)".

The same section of the law goes on to state that the loans,

"may be made either directly or in cooperation with banks or other financial institutions through agreements to participate on an immediate or deferred (guaranteed) basis...(15 USC 636)"

In simpler terms, the SBA is allowed to provide financing through direct loans, from the Small Business Administration, or through guaranteed loans from private lenders. Both types of loans are very similar, except with respect to the availability and extent of financing.



## Comparison of SBA Guaranteed and Direct Loans

The amount of money available for direct loans is dictated by the amount appropriated by congress, consequently, it is not always available. The SBA attempts to assist more businesses with the amounts appropriated by limiting the size of the direct loans to less than \$150,000. Additionally, during periods of short money supply, additional restrictions may be imposed. For instance, at the time of the writing of this paper, direct loans were restricted to Vietnam era veterans, disabled veterans and handicapped individuals, or firms owned by or employing handicapped workers. One last pre-condition; before a firm can apply for a direct SBA loan, it must first show that it was turned down by two lending institutions (15 USC 636)<sup>1</sup>. Except for these few restrictions, the SBA guarantee loan and the SBA direct loan are identical.

### Application and Qualification

For a firm to qualify for either of the SBA sponsored loans, the firm must first be a qualified small business. For the purposes of the loan programs; a qualified business is any

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1. This restriction applies when the applicant is applying in a locality of 200,000 people or more. Its justification is so that the SBA is sure that it is not in direct competition with private lenders (Merriday, 1988).





business operated for profit, that meets the size standard discussed in chapter 3, and, who is not dominant in its field. The business however, cannot be one that is, "involved in the creation or distribution of ideas or opinions (SBA, 1987)." Businesses that would fall into this category include non-profit organizations, newspapers, magazines, schools that teach "academic subjects," and broadcasters. Other restrictions include loans to other lending institutions and loans for the purpose of financing real property for investment.

The loan applicant must be able to meet the same credit requirements of a regular commercial loan<sup>1</sup>. In fact, the bank processing the loan application has the first option to finance the loan, it therefore, will have the same credit requirements for the SBA loan. The credit requirements are set by the particular bank processing the loan. The SBA takes

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1. The SBA lists five general pre-qualification requirements:
    1. Be of good character.
    2. Show ability to operate a small business.
    3. Have sufficient capital in an existing firm so that the applicant can operate successfully.
    4. Show past earnings or projected prospects of the firm which indicate ability to repay the loan and other fixed debt.
    5. Have a reasonable amount of personal capital available in order to withstand possible losses, if the venture is a new business.

In addition to these, a reasonable, detailed business plan is required for approval of direct SBA financing (SBA Loans, 1988).



the position that it is new in the banking business, the firms that are processing the guaranteed loans have more experience and have more at stake than the SBA, they therefore, are more qualified to set the lending criteria. Further, the bank is in business to make money, they must then be more responsible for the loans approved (Merriday, 1988). If a loan is turned down by the processing bank, the applicant can request that the loan be processed for an SBA guaranteed loan. Loans will only be guaranteed by the SBA if the applicant is first turned down by the lending institution. If the bank elects to participate in the program, and is willing to finance the loan with an SBA guarantee, then the application is forwarded to the SBA for approval<sup>1</sup>.

Commercial lending institutions may deny a loan for any reason without having to be held accountable for their decision. The Small Business Administration on the other hand, is an arm of the Government, accountable to Congress, the President and the people. For this reason, when applications are received, for either a direct or a guaranteed loan, the SBA must completely review:

- a. business experience,
- b. formal education,

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1. Through participation in the FDIC and FSLIC system, all banks are eligible to take part in the Federal loan programs, however, some banks elect not to process VA or SBA loans.



- c. potential market,
- d. credit history of the firm and principals,
- e. size of loan,
- f. management capability,
- g. business plan,

and other pertinent information relative to the business, the loan, or the market the firm is entering.

### Loan Terms

As has been explained in the previous section, SBA loans and SBA guaranteed loans go through the same, or more rigid scrutiny than a commercial loan. Part of the reason for this is to help ensure that the SBA is not in direct competition with private lending institutions. To eliminate direct competition, the SBA has stipulated that they will not back a loan unless the local banks have already denied it. In addition, the rates for SBA loans are usually higher than those available commercially. However, the laws do restrict the rate that can be charged by tying it to the prime lending rate:

"The rate of interest on financing made...shall not exceed a rate prescribed by the Administration, and the rate of interest for the Administration's share...shall not exceed the current average market yield on outstanding marketable obligations of the United States (15 USC 636)."



The rates presently "prescribed" by the Small Business Administration are 2.25% and 2.75% above the prime lending rate, for terms up to seven years and over seven years, respectively<sup>1,2</sup>. These rates are the maximums that may be charged, with rates adjusted quarterly (except on direct government loans). A financial institution may extend SBA guaranteed loans at lower rates, depending upon the business prospects presented. The SBA charges 2% of the guaranteed portion of the loan as a guarantee fee. The 2% is in addition to the lending institutions interest rate.

Guaranteed portions of loans run from 85% to 90% of the loaned amount, depending on the size of the loan. The SBA will guarantee 90% for loans up to \$150,000. Loans between \$150,000 and \$500,000 will be guaranteed at 85%. No loans in excess of \$500,000 will be approved. As stated earlier,

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1. The maximum term for an SBA direct or guaranteed loan is 25 years. Terms of this length are only for construction, renovation or major alterations. The law also states that the term may be extended to the estimated completion date of the alterations (15 USC 636).

2. The prime lending rate is taken as the minimum New York prime rate published in the Wall Street Journal on the date the application is received (SBA Loan, 1988).





direct loans are limited to \$150,000<sup>1</sup>.

In addition to the SBA guarantee, the lending institution is required by the SBA, to have the loans collateralized, "or so secured as reasonably to assure repayment (15 USC 636)." The SBA also requires that start-up businesses owners, provide 25% to 30% of the business' capital requirements, before the SBA loans will be approved. This provides an added measure of security to the loan, making the SBA guarantee program more attractive to the lender.

#### Uses of SBA Loans

The SBA backed loan, or direct loan, may be used for almost any normal business function, however, the SBA does reserve the right to refuse the loan, "if it determines that the loan will not benefit the small business concern (15 USC 636)." The legislation specifically states that the loans may also be used for the finance of,

"residential or commercial construction or rehabilitation for sale: Provided, however, That such loans shall not be used primarily for the acquisition of land (15 USC 636)."

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1. In the event a lender decides to request the guarantee, the SBA will take over the loan. In this case, the SBA is allowed to service the loan regardless of the dollar amount. (Merriday, 1988).



Additionally, the legislation does not rule out the use of these loans for the purpose of refinancing existing debt, unless it is simply to prevent a loss to a present lending institution. SBA backed loans may also be used for financing employee trusts, formed for the purpose of taking over an existing small business. The trust must have sufficient capital to obtain 51% of the company stocks and these stocks must be owned by at least 51% of the trust members (15 USC 636).

#### The SBA Small General Contractor Loan

Probably the biggest problem facing construction contractors is, maintaining a positive cash flow. Many research papers have been written on this topic, even entire books have been dedicated to the subject. Construction firms often have difficulty financing the early stages of a construction project due to high capital outlays for materials, and wages. The problem with cash out-flow is further compounded by little or no income in the early phases of the contract. Slight miscalculations, or delayed progress, could be catastrophic for small firms with limited working capital. The construction industry is very volatile, and has a high degree of inherent risk, consequently, banks usually are unwilling to make loans to small construction contractors (Merriday, 1988). To assist small construction firms through



the lean period at the start of construction, the Small Business Administration has developed a Small General Contractor Loan Program.

The Small General Contractor Loan provides working capital to qualified construction contractors for the purpose of project financing, or expanding their existing facilities. This type of loan is provided through a cooperating local lending institution, and is 100% guaranteed by the Small Business Administration.

To qualify for the loan, the contractor must be able to prove that he has been unable to secure a loan from another lender in the vicinity. The SBA does not set any qualification restrictions for this loan, except that the firm be a small construction business, and that the loan be used to cover only direct contract costs. It is also stipulated that the loan not be used for the improvement of certain types of establishments, or for the purchase or improvement of resale property<sup>1</sup>.

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1. Establishments that cannot be financed with a Small General Contractor Loan include gambling casinos, areas of illegal commerce and trade etc.



The terms of the Small General Contractor Loans are set by the lending institutions, but usually are for a term equal to the contract period. The interest rates charged for these loans are usually slightly higher than regular commercial loans, but the rate is capped at 2.75% over the prime rate. Also, the contractor is limited to one loan per contract, but may receive any number of loans up to a total of \$500,000.

In the event the contractor is unable to repay the loan, the lending institution may elect to try to recover the balance, liquidate the collateral (i.e. place a lean on the project), or recover the SBA guarantee. In fact, at any time during the term of the loan, the lending institution may request that the SBA take over the loan, and honor its guarantee.

### SBA Bonding

Most commercial surety companies prefer to restrict their business to large construction firms, having business volumes in excess of \$20 million, and net worth in excess of \$40 million (Merriday, 1988). Construction firms that fall within this financial category present a reduced risk of default, and a higher business volume for the surety company. As a consequence, it is often difficult for smaller firms, particularly new businesses, to receive bid, payment and





performance bonds. Unfortunately, all Federal contracts in excess of \$25,000 and most large private contracts require bonding.

To overcome the bond restriction, the SBA developed the Bond Program in 1970. The law states:

"The Administration may...upon such terms and conditions as it may prescribe, guarantee and enter into commitments to guarantee any surety against loss, as hereinafter provided, as the result of the breach of the terms of a bid bonds, payment bond, or performance bond by a principal on any contract up to \$1,000,000<sup>1</sup> (13 CFR 694(b))."

As with all of the SBA programs, the recipient of the bond must be a qualifying small business, however, the size limit for the bond program is much smaller than for most of the other SBA programs. A company requesting an SBA backed bond cannot exceed \$3.5 million gross per year, for the three previous years<sup>2</sup>.

### Bond Qualifications

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1. The value of the contract limit was recently amended to \$1,250,000.

2. For new firms, the first year projected gross receipts cannot exceed the \$3.5 million limit.



As with SBA backed loans, the commercial surety firm which the contractor is applying through, has the first option on providing the requested surety. Only after the commercial firm has refused to provide the bond, can it be backed by the SBA. If the surety company decides that it will issue the bond with an SBA guarantee; in addition to the size limit mentioned above, the firm applying for a bond must also meet several additional prerequisites:

1. The bond must be a requirement of the contract and is needed for a contractor to bid on the contract, or to serve as the prime contractor,
2. The firm is unable to receive a bond at reasonable terms and conditions without a guarantee by the SBA,
3. The Administration determines that there is a reasonable expectation that the contractor will perform the contract,
4. The contract meets the Administrations requirements for feasibility and reasonableness of cost, and
5. The conditions of the bond and fees assessed are reasonable in light of the contract risks and requirements (13 CFR 115.1)

If all of the listed preconditions are met, the application would then be reviewed by the SBA using essentially the same criteria, and scrutiny, as for loan applications (Merriday, 1988). The applicant's credit history, business experience, education, expertise, and financial status will be reviewed. Firms who recently received SBA backed bonds, may not be reviewed again, provided the contract, for which he now



requires a bond, is of similar nature and size (Merriday, 1988)<sup>1</sup>.

The SBA guaranteed bond program was created to make bonds available to small contractors. To do this, a number of the qualification requirements used by commercial surety companies needed to be relaxed. Unlike the requirements for commercial bonds, the SBA backed bond, only requires an equity to working capital ratio of 10:1; roughly one fourth of that required for commercial bonds. Further, existing firms need only show a profit over the last three years, as apposed to five for the commercial bonds. These differences, along with the 80% Government guarantee<sup>2</sup>, allows the participating surety company to issue bonds to smaller contractors.

Unlike the loan programs, the surety company does not have the option of relinquishing its bond to the SBA. In fact, in the event the contractor fails to perform in accordance with the contract, the surety is responsible for resolving the claim against the bond. Only after the issues have been resolved will the SBA honor the guarantee.

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1. Similar size limits were described to the author, to be not more than 200% of the previous dollar value.

2. The SBA is authorized by 13 CFR 115.1 to guarantee up to 90% of the bond amount, however, the SBA policy is presently to guarantee only up to 80%.



## Conditions and Cost

Although the SBA places several conditions on the contract size a firm may receive bonding for, the SBA places no limit on the number of SBA bonds issued at any one time. Since the firm's expertise, work capacity, and equity/working capital ratio, is checked by the issuing bonding agency, there is no need for the SBA to place a limit on the number bonds held by a company.

A firm will most likely limit the number of SBA bonds it holds because of the cost of the bonds. Again, the SBA cannot be in competition with private firms, and to make it attractive for commercial sureties to offer SBA bonds, the charge for them must be attractive to the bonding company. The legislation authorizing the guarantee of bonds states,

"The Administration shall administer this program on a prudent and economically justifiable basis and shall fix a uniform annual fee which it deems reasonable and necessary for any guarantee issued...to pay administrative expenses incurred... (13 CFR 115.1)"

The present rate charged for the SBA guarantee is \$6 per thousand dollars of bond value, which is intended to cover the





administrative cost of the bond processing<sup>1</sup>. This rate is over and above the commercial bond price, which cannot exceed \$18 per thousand. So, an SBA guaranteed bond may cost up to \$24 per thousand dollars of contract value, as apposed to \$18 or less for a commercial loan.

In addition to the loan and bond programs discussed above, the SBA has several specialty loan programs and general business assistance programs. For the sake of completeness, these additional programs will be discussed briefly in the next chapter.

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1. The processing fees collected are credited to a fund set up exclusively for bond underwriting. The amount in the fund is presently set at \$35,000,000 by 13 CFR 115.1



## CHAPTER 7

### SPECIAL LOAN AND BUSINESS ASSISTANCE PROGRAMS

#### Discussion

Chapter 2, discussed the history of small business assistance programs, but a few points are worth reiterating. As early as 1935 the Government recognized that small businesses suffered because of a lack of adequate long term, and equity financing. A gap existed in the structure of the nations financing institutions which made it difficult for small businesses to receive long and short term debt, investment, and equity capital. To fill this gap, and provide management assistance to the small firms, the Small Business Act of 1953, and the Small Business Investment Act of 1958 were passed.

The Small Business Investment Act of 1958 created the Small Business Investment Companies (SBICs), which were created specifically for providing long term equity and risk capital to small business entrepreneurs. The SBICs were intended to fill the portion of the gap not addressed by the creation of the Small Business Administration.



The Small Business Act created the SBA and empowered it to make loans, "to the extent and in such amounts as provided in advance in appropriation acts...for plant acquisition, construction, conversion or expansion...(15 USC 636)". It did not, however, provide risk capital or equity capital for the small business community, hence the need for the Small Business Investment Company.

Many new assistance programs have been created by the SBA since the start of the Small Business Investment Companies, but the Small Business Administration's loan and bonding programs are undoubtedly the most well known and widely used. Four key factors play a major role in this popularity. First, the programs are among the least restricted of all of the SBA's direct assistance programs, and hence, are available to a wider range of businesses and business owners. Secondly, they are not restricted to utilization by contractors doing business with the Federal Government. All of the programs discussed to this point restricted participation to firms doing business with the Federal Government. It was only after establishing a business relationship with the government that the firm became eligible for any of the programs. Participation in any particular program was then, further restricted by economic factors, race, or social status. Third, These two programs are not directly administered by the Small Business Administration. Both programs are administered



and managed on a daily basis by private lending and surety institutions, providing a broader coverage area from which individuals can be exposed to the programs. Lastly, the programs do not depend on public awareness of them for utilization. Banks and surety companies are the only institutions who must be aware of the programs. It is the loan or surety company who decides whether to use the SBA guaranteed loan or bond, not the applicant. In addition to these two well known programs, which were discussed in the last chapter, the SBA has a number of loan and management programs that are not as well publicized.

### Loan Programs

The Small Business Administration offers eleven loan programs to the community, businesses, and entrepreneurs. The loans are available for disaster recovery to capital investments and equity capital for risk investment. Each loan program has rates and terms which are commensurate with the risk, potential return, and monetary value involved. Usually these rates are slightly higher than commercial loans and are limited in the amount of capital available.

By involving private investment companies in business development, the SBA is able to limit the impact its funding shortfalls have on the business development programs it





sponsors. One such program is the Small Business Investment Company<sup>1</sup>. The SBICs are privately owned and operated, profit making, investment firms that are privately capitalized. The SBA only provides leverage capital, licenses and regulates them. Since the SBICs are to be profit making organizations, the board of directors determines qualification criteria and Loan terms.

It is primarily through the SBICs, that the SBA makes venture capital available to small business entrepreneurs. Capital is made available in two ways; conventional loans, and equity loans. Because the SBIC's are looking for a high return on a limited number of investments, loans are usually in large sums and at rates slightly higher than conventional loans, (Merriday, 1988). The SBIC will provide equity loans when it feels the applicant has a better than average chance for significant profit. In this case, the SBIC assistance is limited to less than a controlling interest in the firm.

A program very similar to the SBIC program is the Local Development Company program. A Local Development Company is an organization of local businessmen and political leaders who have formed a corporation to promote the development, or

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1. The SBA also has a Minority Enterprise Small Business Investment Company (MESBIC) which is limited to assisting social and economically disadvantaged businesses.



improvement, of a specific locality. This program combines local investments with SBA grants. Through local lending institutions, area businesses may receive loans. 40% of the sum loaned by the bank is then matched by the SBA. These loans may be used for plant acquisition, construction, conversion, expansion, land acquisition or machinery and equipment purchases. In the event the construction or equipment acquisition is for pollution control devices, the SBA has a special program to assist small businesses in this area.

In cooperation with: financial institutions, the Federal Government, State and Local agencies, the SBA provides financial assistance to small firms for the purpose of planning, design and construction of government mandated pollution control facilities. Under this program loans may be long term, and up to \$500,000. Pollution Control Loans are 100% guaranteed by the SBA. Only businesses that are at an operational or financial disadvantage with respect to similar businesses, are eligible for these loans. Eligibility determinations are made by the SBA Pollution Control Financing staff in Washington, D.C. (SBA OPC-2, 1987).

Homes and businesses may be damaged by hurricanes, floods, tornados and other natural disasters. Catastrophic damage causes hardship and economic losses for individuals and



the community. When the President or the Administrator of the Small Business Administration, declares an area to be a disaster, the SBA may assist the affected communities with two types of loans: the Physical Disaster Loan, and the Economic Injury Disaster Loan.

The Physical Disaster Loans are made to homeowners, renters, businesses (large and small), and nonprofit organizations, for the repair or replacement of their property and businesses. Disaster loans will usually be provided by a commercial bank, with the SBA providing an 80% guarantee. The amount loaned cannot exceed the replacement or repair cost of the property, and is only provided when the property is not insured.

The Economic Injury Disaster Loan is strictly to assist small businesses in declared disaster areas. The small businesses must have suffered substantial economic losses, due to a disaster, before they are considered eligible for the loans. Loans issued under this program may be used for working capital, and to pay financial obligations which could have been met had the disaster not occurred.

Three additional small business loan programs are the Energy Loan, Handicapped Assistance Loans and Seasonal Line of Credit Loan.



The Energy Loan program attempts to promote competition in the alternative energy and energy conservation fields, by offering credit to small firms engaged in the development, manufacture, marketing, service, installation or maintenance of energy conservation equipment.

Handicap loans help small firms that are owned by or employ handicapped individuals. The loans may be used for renovating the facilities to accommodate handicapped individuals or for general business needs.

Lastly, the Seasonal Line of Credit loan provides working capital to retailers who are engaged in highly seasonal sales. The line of credit provides money for the purchase and restocking of seasonal commodities.

#### Business Development and Management Programs

In addition to the programs directly supported, managed and funded by the Small Business Administration, there are several resources available to small business firms, that work in partnership with the SBA. These resources include the Senior Corps of Retired Executives (SCORE), Small Business Development Centers (SBDC), and Small Business Institutes (SBI). Each of these organizations provide an array of





services from general business counselling, to researching specific production problems. The services are completely free to the small businessman.

## SCORE

SCORE is an independent counselling organization working in partnership with the Small Business Administration, to provide advise and counselling assistance to small business managers. It has 388 chapters throughout the country, with over 12,500 counsellors and an additional 400 satellite chapters.

The SCORE counsellors are retired executives, who give of their time and expertise, to provide counselling services to businesses experiencing problems, doing well and want to expand, or to entrepreneurs who are considering going into business. The counsellors expertise covers all facets of business in most industries, so when a request for counselling is received, SCORE attempts to match the problem and firm, with a counsellor familiar with that difficulty in the specific industry.

The SCORE organization provides classroom training, seminars and workshops at a minimal cost, in various locations throughout the SBA region. These training workshops are open



to individuals, and business persons regardless of the size of the company. If enough interest is expressed, special training seminars and workshops can be scheduled, and are usually open to the general public. Appendix H provides samples of the types of seminars offered, and typical workshop and training schedules.

Assistance with many of the SBA forms and application procedure may be received from the SCORE counsellors. This service could include development, and updating of business plans, review of loan requirements<sup>1</sup>, or referral to other SBA programs.

SCORE also serves as a clearing house for the SBA and SCORE studies. Samples of fact sheets, management assistance and training documents, are included in appendix H.

### Small Business Development Centers

The Small Business Development Centers are located at many colleges and universities across the country. They are usually staffed by senior management students, and supervised by a management faculty member. The SBDCs provide many of

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1. Often new business owners will apply for loans only to be turned down by the bank. The score counsellors will assist in evaluating what capital is actually needed or suggesting alternatives to debt capital.



the same counselling services as the SCORE organization, however, this program also provides hands on experience for the students. It has the added advantage of having the university's resources available for research and field studies.

The SBDCs are funded by grants from Congress, and so, the services provided like the SCORE counselling, is free. When a firm experiences a problem which is common within an industry, or demonstrates a salient point, copies of the counselling notes will be published and distributed to the SBA and SCORE office. Copies of construction related "Counselling Notes" are also included in Appendix H.

#### Small Business Institutes

Small Business Institutes are also located at the major universities and colleges. The SBIs primarily provide investigative and technical research services to small businesses. The SBIs are provided, not only the research facilities at the particular university, but also the entire research capability of the Federal Government. Small businesses, through the Small Business Institutes, are given access to the research facilities of the National Science Foundation, National Aeronautics and Space Administration, Department of Defence and others (15 USC 648). These services



are again provided free of cost.





## CHAPTER 8

### SBA EVALUATION SYSTEM

#### Goals and Evaluation

Recall from chapter 3, that the intent of the Small business act was to, "aid, counsel, assist and protect...the interests of small business (15 USC 631)." The SBA, through its relationship with other government agencies, was given the responsibility to create a business atmosphere which would: foster the economic interests of small business, insure a competitive economic climate, ensure that adequate capital is available to the small businesses at reasonable rates, and provide an opportunity for entrepreneurship and inventiveness. Probably the greatest difficulty which the SBA, and the author faced in researching this paper, is; how does one measure and monitor the performance of the SBA, in its effort to achieve these goals?

#### Scarcity of Data

Although the Federal Government is known for its extensive paperwork and records, surprisingly little is available specifically on the construction industry<sup>1,2</sup>. This

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1. The Department of Defense spends approximately 80% of the Federal Budget, and it is estimated that 960 million hours were spent processing procurement paperwork during fiscal year



fact is especially surprising when one considers the proportion of the Federal Budget devoted to this industry. In 1983 roughly 32% of the Federal Budget went to construction and maintenance of Federal facilities (SBA, 1984).

The need for a business database was recognized by the Congress in 1976, when it directed the SBA to establish a Small Business Database (SBDB). This database combined several existing data files, from various private and government agencies. The SBDB now contains over 8.1 million establishment records, on a high percentage of non-farm related industries. This system first came on line in 1979. Although capable of providing detailed business data, it is often too limited for detailed industry analysis.

Specific industry data may be obtained from the Dun and Bradstreet Corporation (D&B), and was utilized by the author. Information from this source included the Business failure and start trends. Again, however, the information is limited. The failure rate data provided by D&B was quite extensive and extended well before the establishment of the Small Business

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1983. In response to the paperwork, private contractors spent an additional 330 million hours preparing responses, at an estimated cost of \$3.2 billion (SBA, 1984).

2. A construction industry data base is now being developed by Dr. Wentworth of the Indiana University, in conjunction with the U. S. Census Bureau.



Administration, however, the business start record was begun only in 1985, and was therefore, of little analytical value.

Through a number of discussions with SBA officials, professors, and businessmen, two additional sources for business failure and start data were investigated: the IRS Statistics of Income (SOI) database, and the court system records. The data provided by the IRS would have proved to be prohibitively expensive to search and of limited value. Essentially, all the SOI could provide is the number of construction firms in the United States, and their income. Although no direct count of starts or failures could be obtained, the number of large and small construction businesses could have been derived from this database, by applying the SBA size standards. The second possible source of business failure data, the court system, could have potentially yielded significant data, however, all of the records are filed by case number and not cross-referenced to subject data. This file system would then require a line by line search of the court records; an unrealistic undertaking.

#### Available Data

Significant difficulties were encountered finding data specific to the construction industry, and particularly to



small construction firms. Eventually several Congressional hearing reports, internal SBA documents, General Accounting Office investigations, census data and several other sources were identified. These documents, combined with the SBA annual reports, Dun and Bradstreet information and US Navy records, formed the basis of this report.

### SBA Reporting System

The key to success for any long term project, is the ability to monitor progress, and the timely receipt of information on which decisions can be made. Public Law 93-400 required the Office of Management and Budget to "establish a system for collecting, developing and disseminating procurement data..." In 1978, the Department of Defense, acting as executive agent for the Office of Management and Budget, developed the Federal Procurement Data Center (FPDC). The responsibility for this reporting system was then transferred to the General Services Administration in 1980.

The Federal Procurement Data System (FPDS) provides a central reporting point for all Federal Procurement Actions. Not until the FPDS was developed were federal procurement actions reported to a central location in a standard format. The FPDS allows Federal procurement actions to be analyzed by region, cost, industry, market, and as an indicator of





regional or socio-economic distress. The FPDS is also used by the legislative and executive branches of government, for analysis of Federal Procurement policy impacts.

The data available to the SBA, through the FPDS and SBDB is updated on a continuous basis. However, analysis based on these inputs is only as accurate as the data imputed. Each of the data bases utilized by the SBA have shortcomings and limitations.

#### Limitations of SBA Data

The Federal Procurement Data System has several limitations which affect the analyses performed by the SBA. The major limitations are discussed below.

The first limitation of the FPDS is that only contract actions over \$25,000 are reported individually, all others are reported quarterly in a summary format<sup>1</sup>. This report threshold is crucial to the analysis of small business procurement. Since small business receives an average of less than 15% of the Federal contract actions over \$25,000, yet approximately 50% of the contract actions under \$25,000, failure to record these transactions has proven to be

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1. Prior to 1983 the reporting limit was \$10,000.



significant. In 1984, failure to report transactions under \$25,000 resulted in only 25% of the Federal/Small Business transactions to be considered in the SBA analysis of the small business share of Federal procurement (SBA, 1984). A second limitation of the FPDS is that only prime contract actions are reported in detail.

Construction Subcontractor data is only available for subcontracts in excess of \$1 million. The data inputs include the cost of the subcontract, but does not identify the service or product procured, hence, it cannot be included in a detailed industry studies. The inclusion of subcontract values has been shown to be significant. In fiscal year 1982, it was estimated by the Small Business Administration, that the small business share of Federal Procurement would have increased from 26% to 34%, had subcontract data been included (SBA, 1984).

Thirdly, the reporting system only requires that the principal product or service code for the contract action be recorded. This limitation would usually be insignificant, for Federal construction programs, since the Federal Government usually procures one principal facility per contract. In the case of a major BOSS contract, however, it could have some



impact<sup>1</sup>.

The Federal Procurement Data System has several additional limitations, but for the purposes of this paper, they are not significant.

The Small Business Data Base, mentioned earlier, is made up of three components: the Master Establishment List (MEL), United States Establishment and Enterprise Microdata file (USEEM), and the Financial Statement File (FINSTAT). Both the MEL and USEEM data lists supplement Dun's Market Identifier (DMI), from the Dun and Bradstreet Corporation, with additional data lists and configurations. The FINSTAT contains financial data on over 800,000 firms. Included in the data base are balance sheets and profit and loss statements. The SBDB has several limitations, the most significant of which is that the MEL and USEEM data was developed from Dun's Market Identifier files. The DMI files were created for the purpose of providing credit histories on a select population of firms, they therefore, have no scientific or statistical representation of firms in any market or industry.

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1. BOSS is an acronym used by the Navy to describe major contracts whose scope often includes a turn-key, base construction contract, and operation and maintenance of that installation.



In spite of the significant limitations of the available SBA data, it is far better than what has been available in the past. The SBDC files are the first extensive microdata file developed for Federal statistical analysis (SBA, 1984). In addition, the SBDS has the ability to sort its records by business size, location, transaction amount, owner, and many other record fields; making it a very flexible tool for measuring the effect of federal policy on particular areas of the economy.

#### Detailed SBA evaluation

The information provided by the various data base systems discussed above, allow the SBA and other agencies to track overall business trends; but what of the individual SBA programs?

The author found, that except for a detailed system of tracking the number and dollar amounts of contracts awarded, the SBA doesn't record any transactions on a national level. It therefore has no periodic evaluation system to determine program effectiveness or utilization. For instance, while discussing the 8(a) program, the author inquired if a firm was watched after graduation from the 8(a) program. The response was that they were tracked, "but not by this office, probably on a national level." Similar responses were received from





at least two different SBA official at different locations and times. Further investigation failed to show that any "after graduation follow-up" is conducted. The actual effectiveness of this and other programs is, therefore, unknown: In a few instances contractors have been hired to study specific areas or programs to analyze its industry impacts.

### Summary

Evaluation of the effects federal policies have had on the small business community has been difficult. Federal policy makers have been hampered by a lack of current, and reliable information on which to base decisions. Further, they have been unable to measure the affects policies have had on small business, due to the same lack of information. As a result, the small business communities contribution to the economy has not been analyzed in a detailed systematic fashion. Only in recent years has the Government taken steps to improve the flow of information to the law makers and general public. However, the reporting system utilized by the SBA still tends to provide macro-level data, while ignoring detailed study of its individual programs.



## CHAPTER 9

### CONSTRUCTION INDUSTRY TRENDS

#### Discussion

One of the primary objectives of the Small Business Administrations is to promote the creation of small businesses for the purpose of ensuring competition. This chapter attempts to analyze, to what extent the SBA programs have limited small business bankruptcies and promoted the creation of new businesses. The chapter will also look at the distribution of employment within the construction industry and how this has changed since the creation of the SBA.

#### General

The purpose of the Small Business Administration is to foster and protect the interests of small businesses, promote and assist the creation of small business, ensure free and open competition, and strive to eliminate the economic imbalance faced by socially disadvantaged individuals. The SBA attempts to meet these goals through the various programs discussed in the previous chapters. As has been explained, several of the SBA programs attempt to enhance competition through restricting it. One would expect then, that restricted competition would foster higher prices and an



inferior end product. Other programs provide funding to contractors who could not get funding by conventional means. Do these contractors present a larger risk on construction jobs? Do contractors requiring certificates of competency perform to the same degree as other contractors? Have the policies of the Small Business Administration increased competition in the construction industry by fostering the creation of new businesses? Lastly, has the overall performance of the Small Business Administration increased the share of Federal Procurement going to Small Business? The answer to these questions are not easy ones. As explained in the previous chapter, the data available is very limited and fragmented, making in depth analysis next to impossible.

Using information from a number of sources reasonable answer to these questions are provided on the following pages. Where possible references and supporting data are presented.

### Growth of the Construction Industry

When the Small Business Administration was formed in mid 1953, no records existed which could readily indicate the number of construction firms in the United States. Until the late 1960's no organization undertook the task of making a census of the construction industry. Some organizations such as the Associated General Contractors (AGC), could provide a



rough estimate of the number of construction contractors in the country, but it could not provide the detailed statistics needed for industry studies. As a consequence, the SBA has no benchmark from which to measure progress.

In 1967 the United States Census Bureau conducted the first comprehensive census of the United States' construction industry. Three subsequent census' have been conducted and the results published. The census data shows that the construction industry has increased dramatically since 1967 (Figure 9.1)<sup>1</sup>.

The Census Bureau data, from which figure (9.1) was developed, is assembled in several formats, including by business receipts and employment. The proportion of small business, included in the overall statistic, can be derived by applying the SBA definition of "small" to the Census data. To ensure statistics for each census year could be directly compared, the appropriate SBA size standard was converted to constant dollars using a present worth factor of 8%<sup>2</sup>.

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1. Census data is only presented through 1982 because it take an average of three to four years to assemble and publish each census report. Consequently, the 1987 statistics will not be available until late 1989.

2. The 8% was based on the average Consumer Price Index for the period of consideration.





# NUMBER OF CONTRACTORS IN U.S.

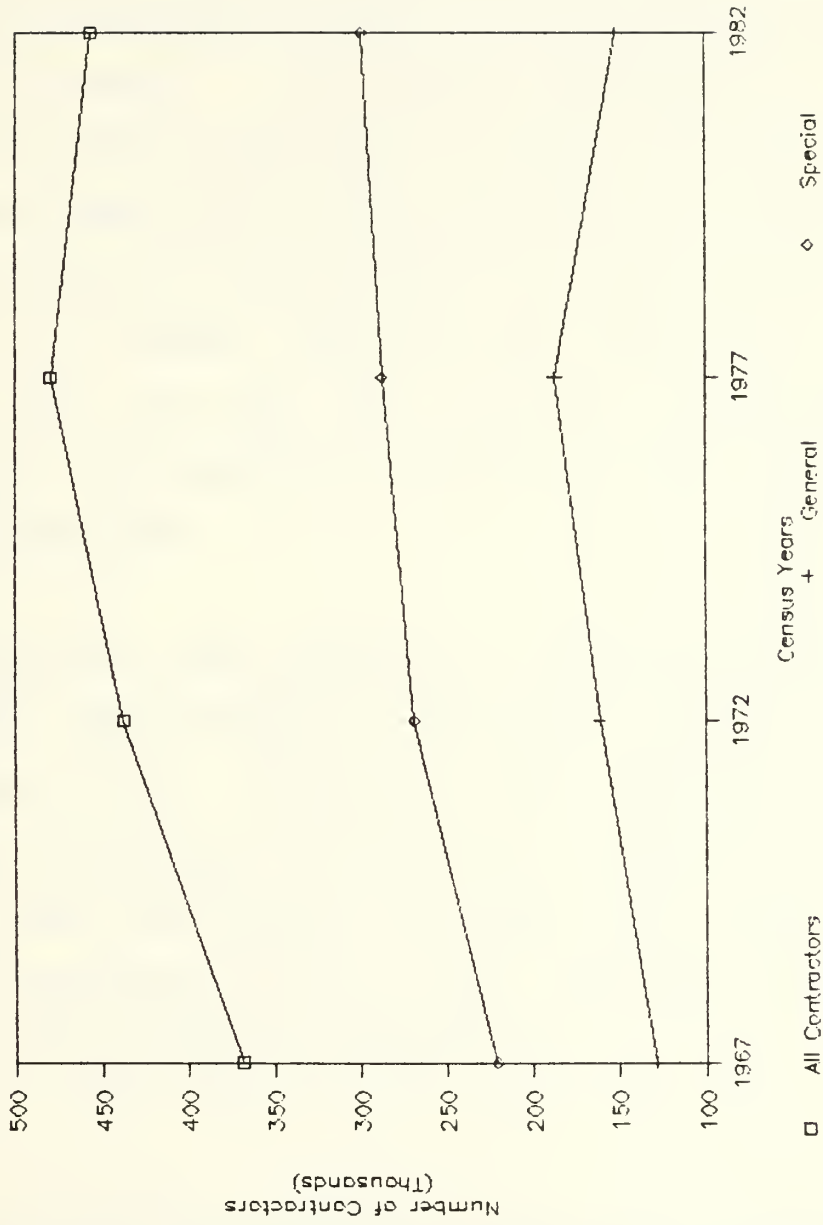


Figure (9.1)



The number of firms falling within the resulting receipt size limit was interpolated, using the straight line method, from the census tables. The results of these calculations are presented in Appendix C of this report.

Figure 9.2 shows that the percent of small contractors has remained relatively unchanged over the period covered by the census reports<sup>1</sup>. The relative proportion of small specialty and general contractors, is shown in figures 9.3 and 9.4. These figures dramatically presents the large portion of the construction industry made up of small contractors. This point is further dramatized by figure 9.5, which indicates that, in 1972, only 2.2% of the construction industry was large business. The author found that this was a typical proportion.

Employment by the construction industry parallels the growth in the overall number of construction firms, discussed above (figure 9.6). However, a more detailed look at construction employment will show that, although the number of small firms has steadily increased, the proportion of individuals employed by small firms, has been erratic, or decreasing. See figures 9.7 through 9.9.

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1. In figure (9.2) and Appendix C, "other small contractors" includes operative builders, developers and subdividers.



# NUMBER OF SMALL CONTRACTORS AS A % OF ALL CONTRACTORS

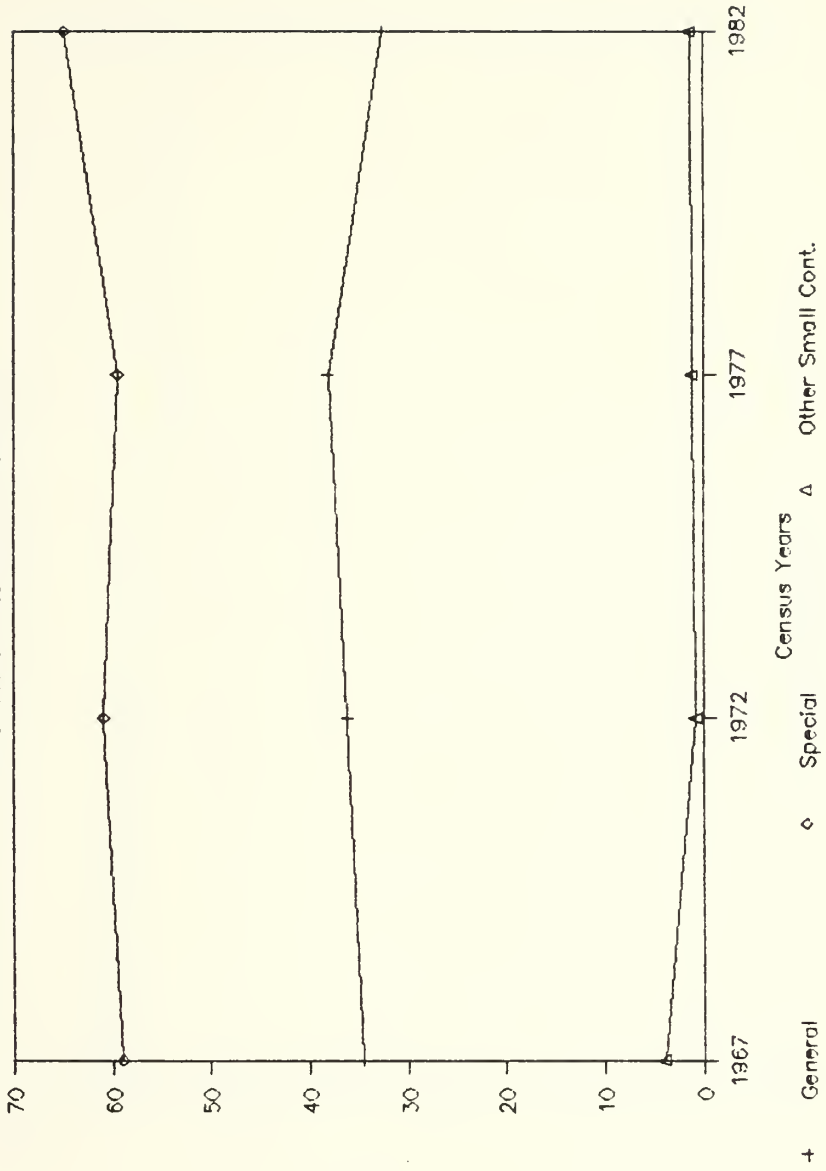


Figure (9.2)



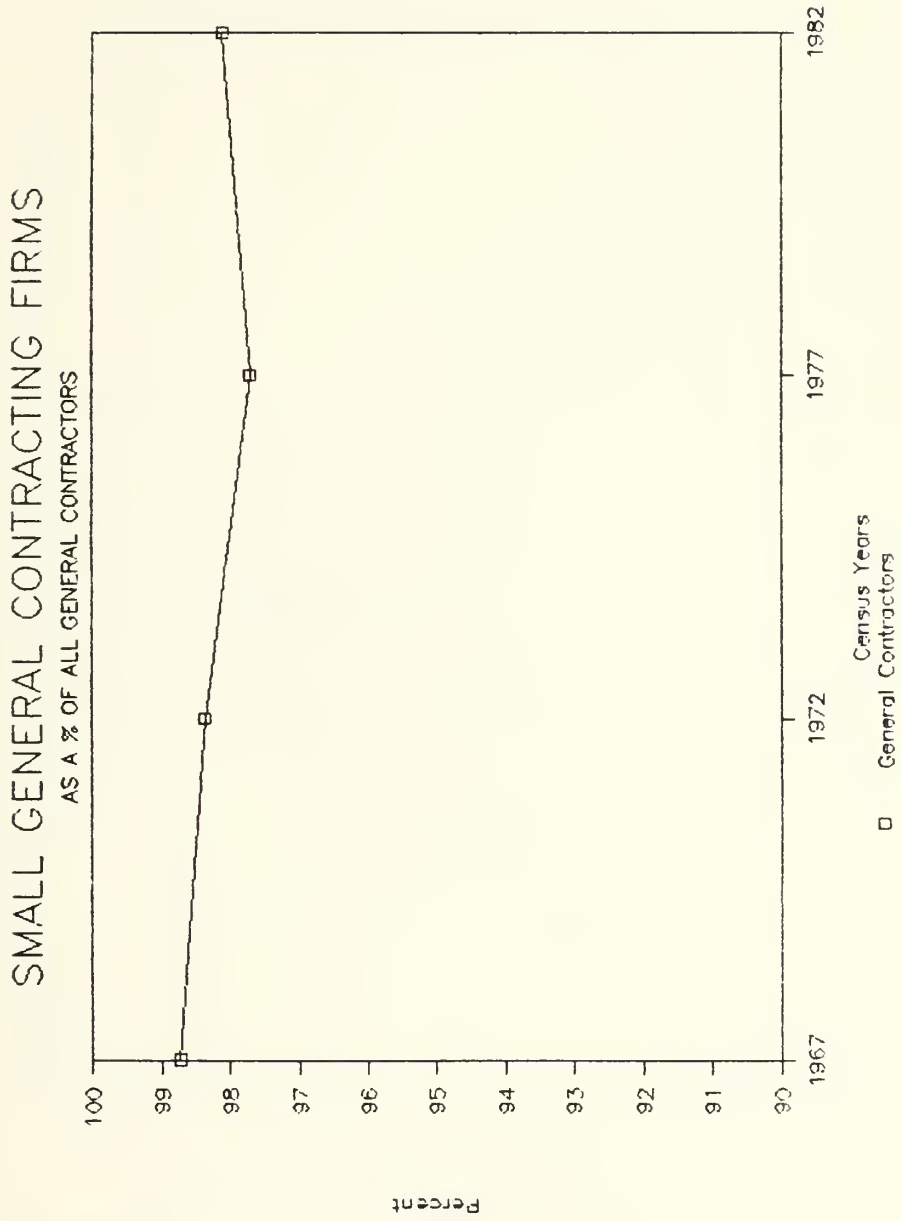


Figure (9.3)





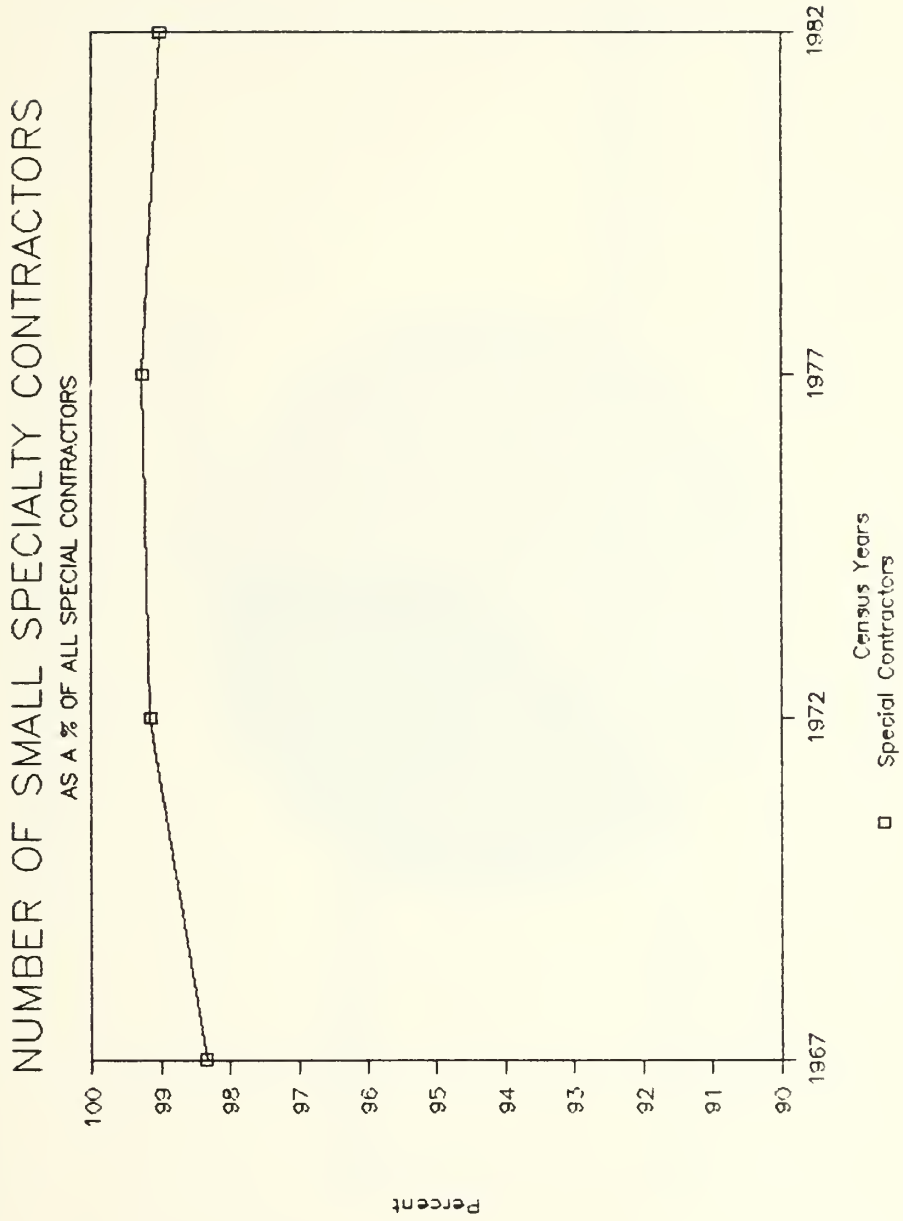


Figure (9.4)



NUMBER OF SMALL FIRMS (1972)  
AS A % OF ALL CONSTRUCTION FIRMS

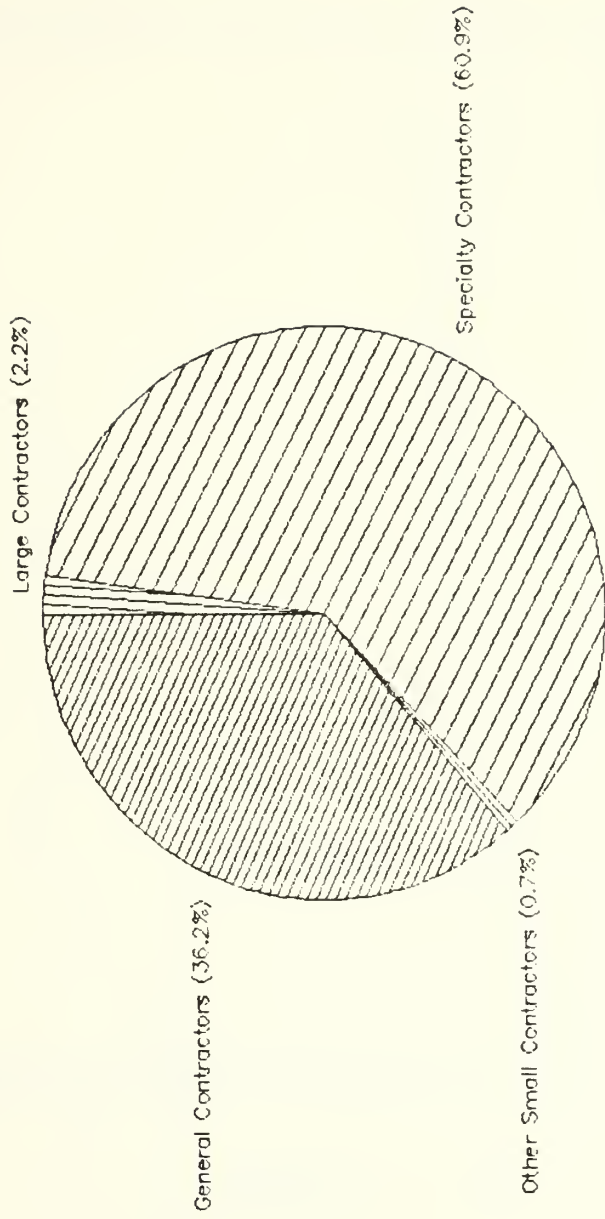


Figure (9.5)



# EMPLOYMENT BY CONTRACTORS

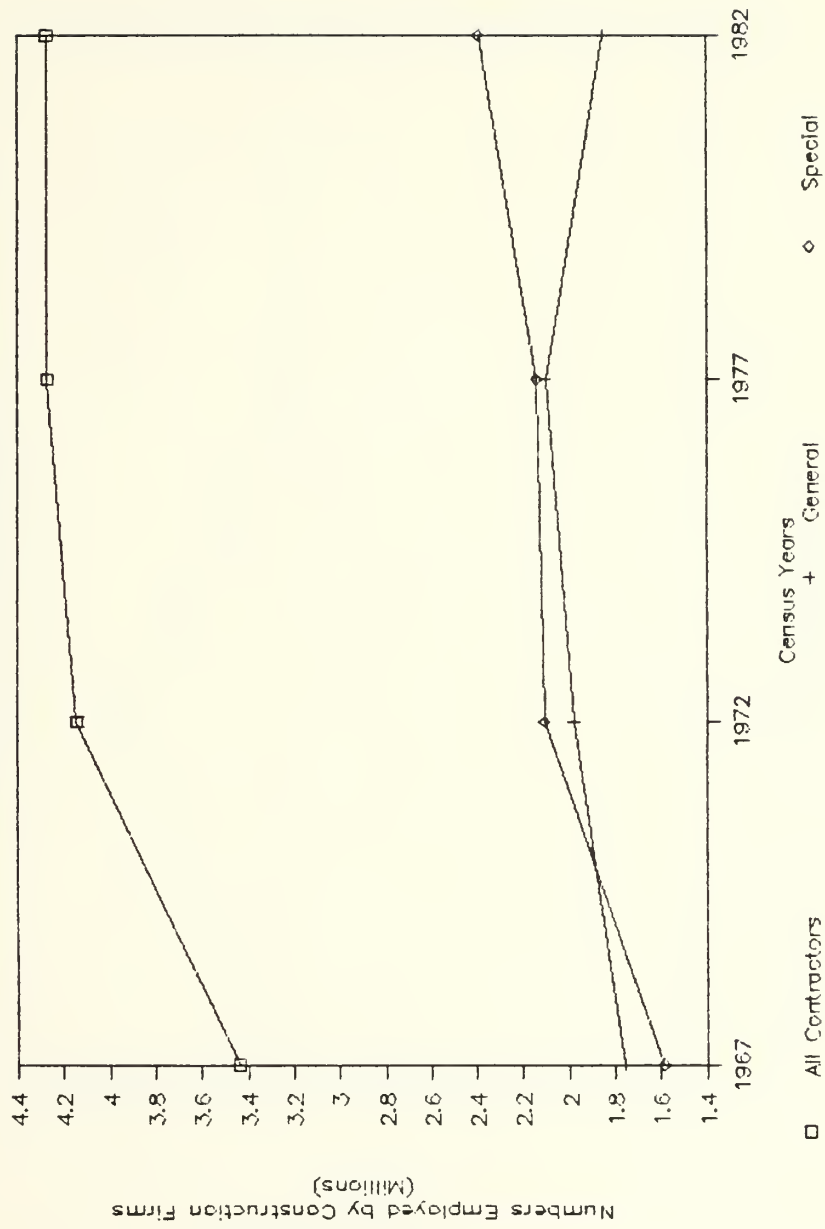


Figure (9.6)



# EMPLOYMENT BY SMALL CONTRACTORS

AS A % OF ALL CONTRACTORS

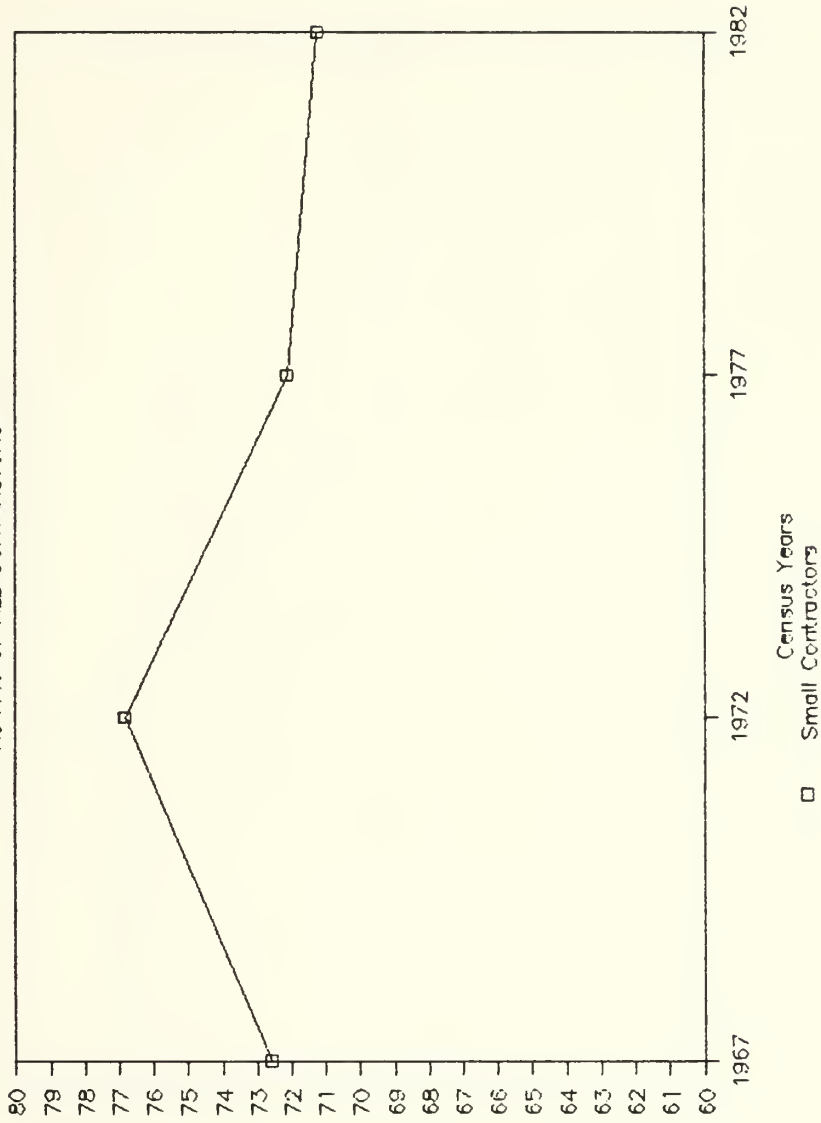


Figure (9.7)







Figure (9.8)



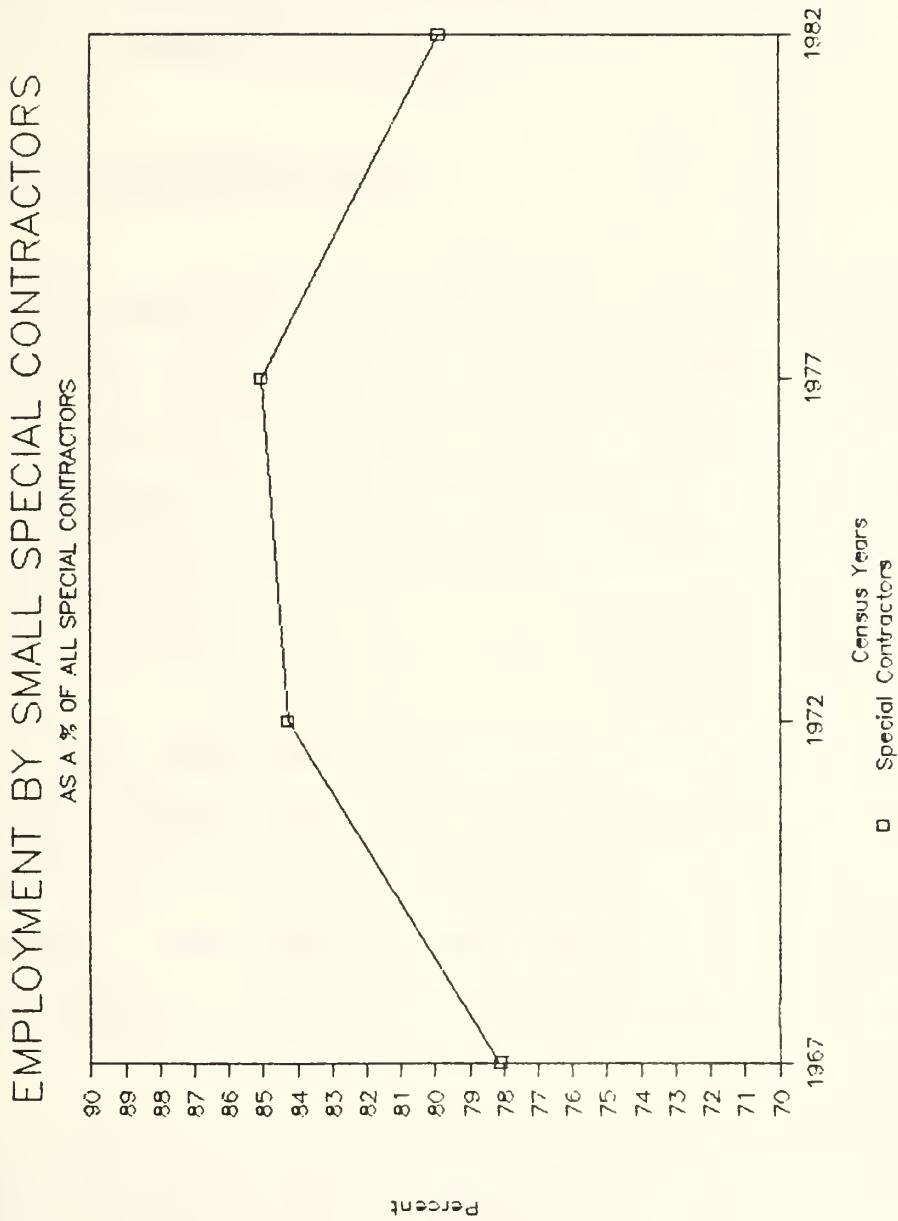


Figure (9.9)



Figure 9.10 illustrates a typical distribution of employment within the construction industry. This figure was also derived from the census data for 1972. Please note, that although the small business share of employment has decreased, it typically is well in excess of 95% of the industry's employment. This is further illustrated by the additional statistics presented in Appendix C.

### Construction Business Starts

As with several of the areas which the author planned to make detailed analysis, the area of construction firm starts has not been well documented. After investigating several possible sources for comprehensive business start data, the author was forced to utilize the limited data available from Dun and Bradstreet<sup>1</sup>.

Dun and Bradstreet Corporation publishes a periodic summary of business starts for all of the two, and 3 digit, SIC codes utilized by the SBA in making size determinations. The business starts data includes new firms, but not changes in legal status, name, location or ownership changes of

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1. The author investigated using data from the court system and IRS tax records. For a number of reasons including cost, excessive research time and limited value of the data, both sources were eliminated from consideration.



existing firms. For this reason, the Dun and Bradstreet data is superior to that available from the other sources examined. Unfortunately, D&B did not start publishing the **Business Start Record**, until 1985.

The limited data available from D&B is presented graphically in Figure 9.11. The graph shows that construction business starts have experienced a constant decline over the three years presented. Dun and Bradstreet attributes this decline to three factors. The first year the business start report was published, was toward the latter stages of a "robust" recession recovery period, consequently, a number of entrepreneurs had already entered the industry. Secondly, in 1986, pending tax reform legislation, discouraged many individuals from starting new businesses. Lastly, the poor economic conditions in the oil producing regions "resulted in weakness in entrepreneurial activity...(Dun and Bradstreet, 1988)" The limited period over which this data is available renders it worthless for the purpose of investigating long term SBA policy impacts.





% EMPLOYMENT BY SMALL CONTRACTORS  
AS A % OF ALL CONTRACTORS

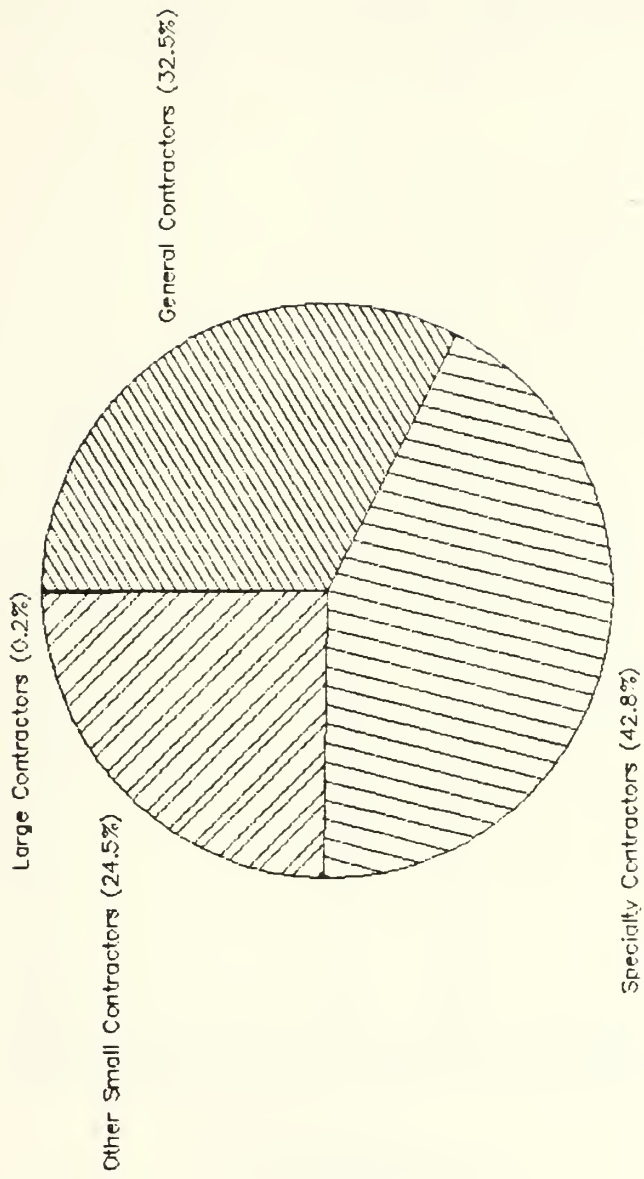


Figure (9.10)



# CONSTRUCTION BUSINESS STARTS

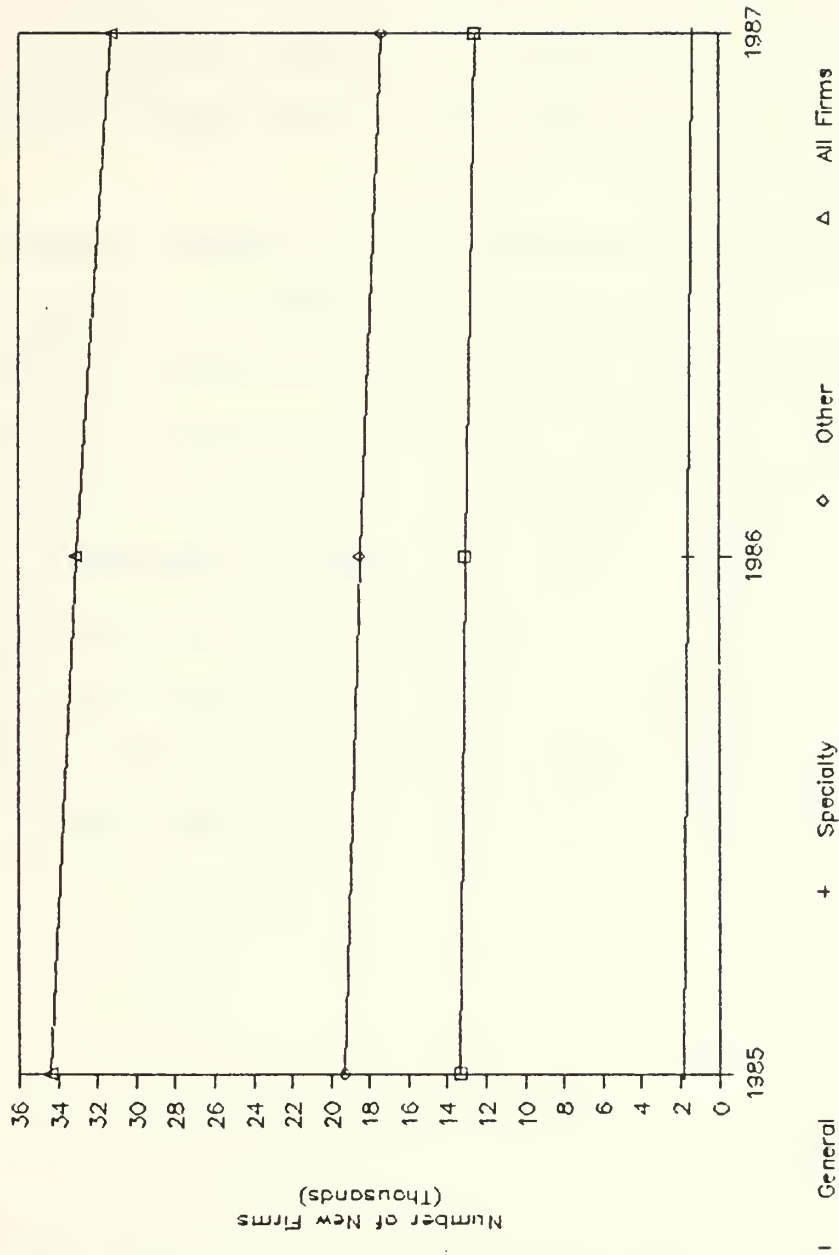


Figure (9.11)



## Business Failures

The Dun and Bradstreet Corporation has maintained business failure records since 1920<sup>1</sup>. Business failure data, like the business starts data, includes a majority of the SIC codes used by the SBA. Extensive, comprehensive, construction industry data was thus readily available.

Construction industry failures presented in Figures 9.12, and 9.13, provide a breakdown of the data by contractor type. Two interesting observations can be made from these graphs: A sharp peak in construction failures occurred in 1975. A similar, but much more extreme, increase occurred between 1982 and 1985. Additionally, comparing figures 9.13 and 9.11 to figure 9.5, provides further insights. On the average, more than 95% of the construction industry is comprised of small firms, intuitively, one would expect that the same proportion, or more, of the firms started, or failed, were also small business.

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1. Dun and Bradstreet defines a business failure as a business involved in court proceedings or voluntary actions involving losses to creditors. The **Business Failure Record**, therefore, does not include all business discontinuances.



# CONSTRUCTION BUSINESS FAILURES

ALL CONSTRUCTION FIRMS

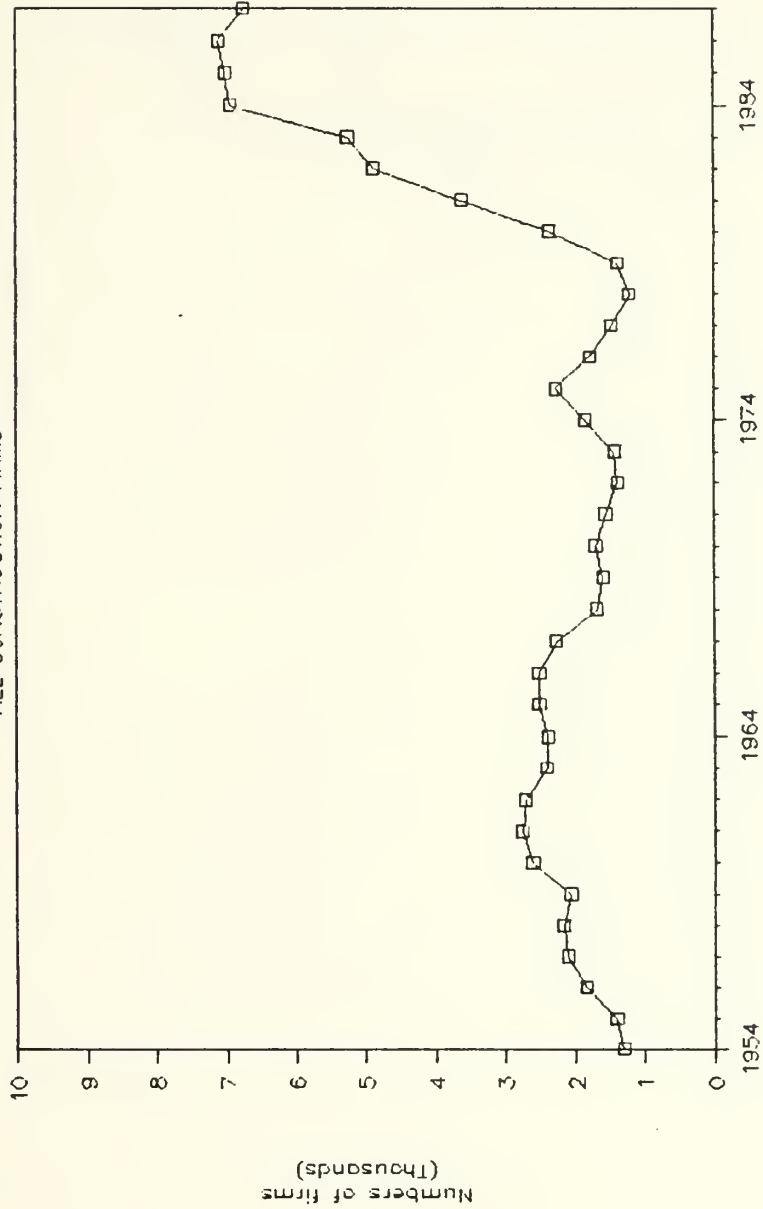


Figure (9.12)





# CONSTRUCTION BUSINESS FAILURES

ALL CONSTRUCTION FIRMS

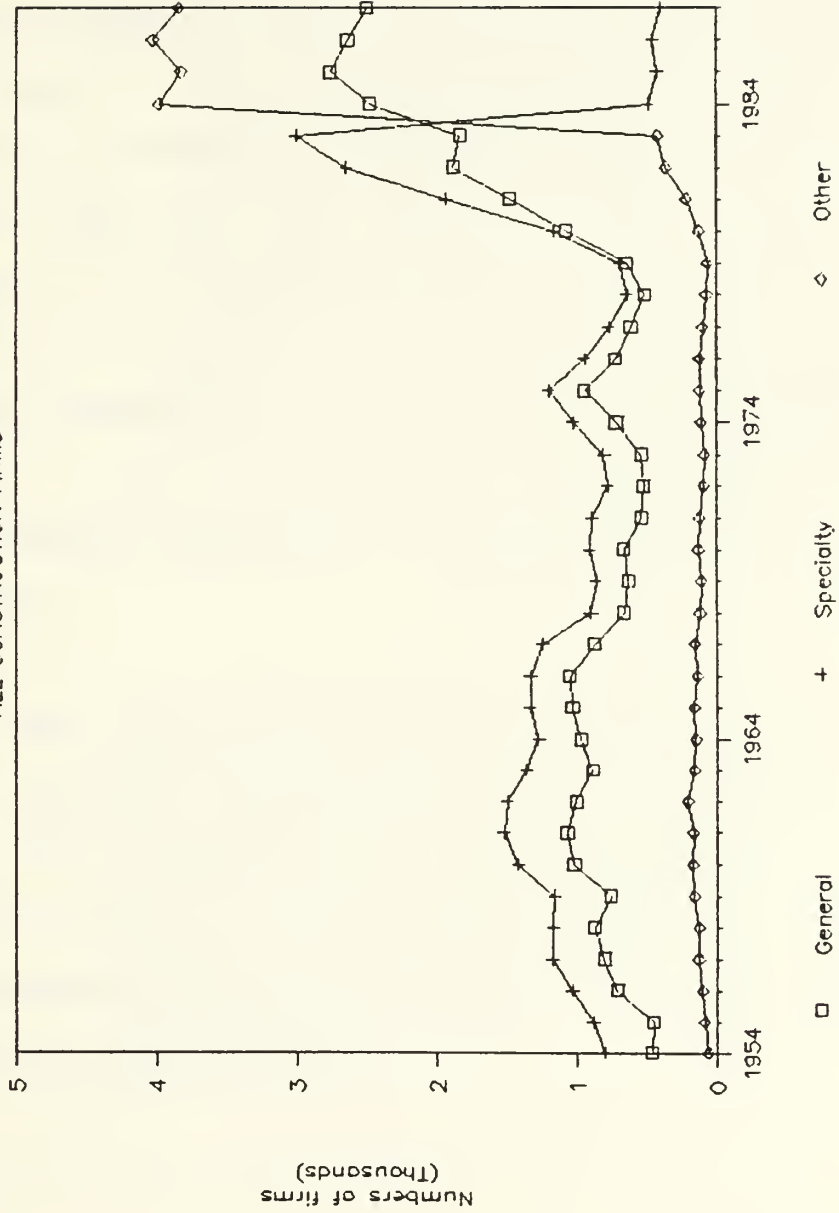


Figure (9.13)



The high rate of failures which occurred between 1982 and 1985 took place at the same time that the country was experiencing a "robust recovery period", following the recession of the late 1970's and early 1980's (Dun and Bradstreet, 1988). The Small Business Administration explains this high rate of business starts and creations, as being a "continuing business trend, common to all industries in the United States". They say that a general rise in new businesses has occurred continuously since 1967. "As new businesses form and fail faster, relative to existing businesses, it is inevitable that new business growth will result in some increase in business failures." They also credit this phenomenon to "a structural shift toward self-employment," with the "traditional risks associated with entrepreneurship" resulting in increased business failures (SBA, 1984).

The 1975 failure peak roughly corresponds to the first major oil shortage experienced by the United States, which began in 1973 (Faulkner, 1968). This suggests that the rate of business failure is also strongly influenced by the state of the national economy, with little influence applied by the Small Business Administration.



The Small Business Administration estimates that 40% of all existing small firms do not rely on any of the commonly used financing sources, over 60% do not even rely on individual savings accounts (SBA, 1988). This then, leaves only the SBA business management programs for influencing the business failure statistics.

The following chapter will show that the management programs have not been utilized sufficiently to apply any influence on the U. S. economy.

### The Fair Share

The legislation which created the Small Business Administration speaks of ensuring small business receives its "fair share" of the Federal Procurement Dollar. Nowhere in that legislation is, "fair share", defined. In dealing with the SBA and other procurement personnel it soon becomes obvious what the "fair share" referred to is. Most references to the "fair share" mean, an amount of contract dollars awarded to small business, equal to the ratio of the number of small businesses divided by the number of large businesses. The goal to provide small business their fair share, is then, very subjective and difficult to determine conclusively.



Table 9.1 provides a listing of individually reported Federal procurement actions, awarded to small businesses between 1979 and 1985<sup>1</sup>. In 1985, Construction comprised approximately 6% of the awards received by small business, which is only sixty percent of the construction dollars awarded that year (SBA, 1987). Sixty percent is relatively small when one considers that the construction industry is dominated by small business.

One study commissioned by the SBA in 1986 found that "the fact that small firm procurement is disproportionately low does not, however, establish evidence that an inequitable situation exists...Federal government procurement may be concentrated in industries which are dominated by large business (Faucett, 1986)." This same study found that after combining the individually reported contract actions, estimated subcontract actions, and awards below the reporting threshold, small construction firms still only received roughly fifty five percent of the Procurement weighted share of Federal construction dollars<sup>2</sup>. Of more interest, is the

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1. Prior to 1983 contract actions in excess of \$10,000 were reported, after that date the report threshold was increased to \$25,000.

2. The investigators merged the data contained in the FPDS and SBDB to obtain a more accurate estimate of the contract share awarded to small business. The procurement within each Standard Industrial Classification (SIC) were then weighted by the amount of procurement from that SIC. The values were weighted because the Federal government doesn't have the same





investigators' finding, that roughly 50% of the awards made to small business were through the Set-Aside program (Table 9.2).

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procurement mix as the private sector.



INDIVIDUALLY REPORTED CONTRACT ACTIONS  
1979-1985

| Fiscal<br>Year | Total<br><hr/> (Billions of Dollars) | Small<br>Business<br><hr/> (Dollars) | Small<br>Business Share<br>(Percent) |
|----------------|--------------------------------------|--------------------------------------|--------------------------------------|
| 1985           | 182.6                                | 25.2                                 | 13.8                                 |
| 1984           | 167.7                                | 25.4                                 | 15.2                                 |
| 1983           | 155.4                                | 22.0                                 | 14.1                                 |
| 1982           | 152.3                                | 23.5                                 | 15.4                                 |
| 1981           | 128.6                                | 19.8                                 | 15.4                                 |
| 1980           | 100.8                                | 15.3                                 | 15.2                                 |
| 1979           | 88.2                                 | 14.0                                 | 15.8                                 |

Note: Reproduced from **The State of Small Business: A Report of the President** (1987) with dollar figures rounded to the nearest \$100 million.

Table (9.1)



CONSTRUCTION  
 PROCUREMENT SHARE  
 VS.  
 INDUSTRY SHARE

| Year | Small Business Share (%)        |                      |                |
|------|---------------------------------|----------------------|----------------|
|      | Sales<br>(Weighted Procurement) | Procurement<br>Total | W/O Set-Asides |
| 1981 | 54.56                           | 47.61                | 21.86          |
| 1982 | 55.14                           | 52.39                | 19.66          |
| 1983 | 56.18                           | 52.17                | 17.29          |

Table 9.2



CHAPTER 10  
PROGRAM ANALYSIS

Background

Chapter 8 provided some discussion of the limited data available to the Small Business Administration and other researchers. For the reasons discussed in that chapter, it is not possible to provide a detailed analysis of each of the programs managed or associated with the SBA.

As the author conducted the research for this paper, he learned of many programs he was not aware of. The fact that he did not know of these programs made him question how many small business owners were also uninformed. A construction business survey was conducted to establish how many owners, or managers, knew about the SBA programs, and who took advantage of them. The results of the survey will be presented followed by a discussion of the Small and Disadvantaged Business (8(a)), and Title II programs. These two programs make up the remaining segment of SBA construction involvement, not already analyzed.





## SBA Program Awareness

After questioning my own knowledge about the extent of the Small Business Administration's assistance programs, I began questioning friends and relatives. I found that a majority of the persons questioned had little or no idea what the role of the SBA is. This naturally led me to question the awareness of the business management and loan programs, among construction business owners and managers.

Beginning in late April 1988, a business questionnaire was developed which addressed most of the major SBA programs (Appendix D). Questions were divided in to three sections. The first section, was to establish the probable size category in which the SBA would place the firm. Section two asked specific questions about past management experience or business ownership. This was to try and see how many of the managers had been in business, had succeeded or failed, and whether SBA assistance was utilized by that firm. The questions in part three, were designed to be answered as yes or no, and were intended to give an indication as to whether the respondent was aware that a specific program existed<sup>1</sup>.

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1. Program awareness was limited to a basic knowledge that such a program existed, but not necessarily a detailed knowledge of its workings or qualification requirements.



The survey was conducted in two phases because of a poor response from the first attempt. The first phase, was a mailing of 100 questionnaires to small construction firms doing in the Atlanta, Georgia area. The names of the firms were obtained from the Atlanta Builders Exchange or from the Associated General Contractors (AGC) roster. Phase one received only 54 responses, of which 18 were classified as large business and eliminated from the analysis. Phase Two of the survey was conducted by telephone in late May and early June 1988. This survey of an additional 100 firms, resulted in 65 responses with 14 being discarded.

From both phases of the survey, a total of 69 small business responses were received, of which 6 were specialty contractors. 34% of the respondents presently perform government contracts but only 8.7% of the respondent's firms have used any form of government assistance.

The SBA programs that exhibited the greatest degree of public awareness, are the guarantee loans and bonding programs, in which 60% of the respondents were aware of the programs. It is interesting to note that the highest participation by the respondents was in the bonding and management publication programs, and the loan program had no participants among the surveyed firms.



Awareness of the Title II program and 8(a) program was 56% and 59% respectively, followed by the management training programs, at 30% to 40%. One of the survey respondents admitted to having substantial management and financial difficulty. This firm had received Federal contracts in the past, but could no longer get a bond. Further, he admitted that he was on the brink of bankruptcy, yet was unaware of any assistance available through the SBA<sup>1</sup>.

The overall participation rate of 8.7% for the small construction businesses surveyed, is the basis for the opinion, expressed in the last chapter, that the SBA has little influence in the nations economy or the construction industry.

The statistical accuracy of this survey can be questioned, especially if the results are extrapolated to the national level as I have done. However, the results presented are within reasonable agreement with results obtained by the SBA on similar studies. A few of these studies will be discussed in the following sections.

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1. It is also interesting that one of the large firms that responded to the survey admitted to having used a minority owned company to act as a front for receiving 8(a) contracts.



## 8(a) Program Participation and Cost

None of the respondents to the business survey were small disadvantaged businesses (8(a) contractors). At first the author thought it was due to survey error. It has since been surmised to be the result of a scarcity of 8(a) contractors.

In the Atlanta, Georgia area, the combined 8(a) participation for all industries is only 94 firms.

Since the start of the 8(a) program in 1968, only 4598 firms across the country have participated in the 8(a) program. As of October 1987 only 1,287 firms have graduated to self sufficiency (Luke, 1988). The bulk of 8(a) firms are located in the Philadelphia and San Francisco areas. It is interesting to note; in the bidding analysis, presented later in this chapter, none of the 8(a) bidders received awards, even though the data included Navy Construction in the Philadelphia area. Failure to award contracts to the 8(a) firms resulted in insufficient data to analyze the 8(a) contract cost growth.

In a survey of contracting officers, the General Accounting Office (GAO) found that 36 percent of the 8(a) contracts are more costly to the government, while only 9% of the non-8(a) contracts are more costly. In the same survey, the GAO found that nearly half of the contracts awarded to





8(a) contractors required substantially more administrative monitoring (Luke, 1988). In the same report over 35% of the 8(a) dollars awarded in 1987, went to 50 firms while over 1,225 firms received no contracts at all.

The administrative cost of 8(a) contracts has been alluded to as being higher than competitively awarded contracts, the lead time for award is also excessive. The GAO in a 1982 investigation, found that average time to award an 8(a) contract was roughly 95 days, while competitive contracts were well under 100 days (GAO, 1982). The GAO also found direct costs for 8(a) contracts to be excessive.

"from the procurement activity's standpoint, the pricing of 8(a) contracts is unique. Rather than determining a fair and reasonable price...contracting officers are expected to determine a "competitive market price, based on what they would expect to pay viable competitive firms (GAO, 1982)."

In addition, it was found that contracting officer were expected to add up to 20% on fair market prices to cover contractor inefficiency, with the difference in price to be refunded by the SBA<sup>1</sup> (GAO, 1982). You will recall, in

---

1. In 1972 the SBA received \$8 million to start a Business Development Fund (BDE). The fund was to be used for paying the differential between negotiated 8(a) contract prices and fair market price. Until this time, contracting agencies facing fiscal limitations were reluctant to award 8(a) contracts, because the higher costs would be funded from the



chapter 5 the existence of an apparent conflict of interest in the 8(a) negotiation procedures was discussed. This conflict was also recognized by the GAO. The GAO found the SBA's Standard Operating Procedure (SOP) 80-05 instructs:

"The purpose of the negotiations...is to negotiate the terms and conditions of the proposed subcontract and agree upon a price which will permit the 8(a) concern to perform and earn a reasonable profit. It may be assumed that the representatives of the contracting officer...will need to limit the contract price to the amount they consider to be the "fair market price" or less. If the price proposed...is not considered sufficient to assure a reasonable profit...the SBA contract negotiator...will conduct further negotiations for the purpose of obtaining agreement to the higher price (GAO, 1982)"

The affect this SOP has on the contract costs will become evident in the following paragraphs.

#### 8(a) Contract Bidding and Growth

Appendix E provides a printout of the Small Business Award Data base obtained from the Northern Division, Naval Facilities Engineering Command, Philadelphia, PA. (NORTHDIV). NORTHDIV is the Navy's regional facilities managers and construction administrators, responsible for all Navy facilities in the Northeastern and Northern Mid-West of

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agency budget. In 1982, the BDE fund was increased to \$20 million.



country. This data base was used to analyze the bidding record of firms doing business with the Navy. The data base contains approximately 1800 individual bids on over 450 contracts ranging in value from \$10,000 to \$15 million. Although the data base was intended to keep track of only Title II and 8(a) contracts, some large businesses submitted bids, thus, allowing direct comparison between large and small business bidding.

Prior to doing any analysis on the data base, the size status of each firm was confirmed, or else discarded from consideration. After this process was complete, 20 contracts with 33 bids from 8(a) contractors remained. The bids were then compared to the government estimate<sup>1</sup>. It was found that the bids submitted by 8(a) contractors averaged 75% (1.75 times the estimate) above the government estimate, with a variance of 94.7%. Awards to the 8(a) firms averaged, only 8.08% above the government estimate, however, the government estimate was probably adjusted upward by 10%, in accordance with the Federal Acquisition Regulations discussed in chapter

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1. The government estimate was chosen as a benchmark for comparison of the bids, and awards, in order to maintain a relatively constant datum. It is assumed that the government estimates are made by a relatively small number of engineers and the effects of any skewed estimates will be minimized through the Central Limit Theorem.



The SBA, in 1983, commissioned an investigation of contract growth. This study found, overall, negotiated non-competitive contracts awarded to small business, grew an average of 64% during the life of the contract. Construction contracts awarded on a non-competitive basis grew by only 20%, the smallest increase of all the industries studied (SBA, 1984).

### Title II Contracts

An identical analysis was conducted for contracts awarded to large businesses, and small businesses participating in the Small Business Set-Aside program. The study showed that on the average, Federal Contracts were awarded more frequently to Title II firms when they were formally advertised as firm fixed price contracts. The SBA attributes this to favoritism toward the large contractors, principally due to reduced

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1. Informal discussions with present and former Navy contracting officers, indicate that it is a common practice to add the 10% "reasonable price threshold" allowed by FAR 19.806-2.





administrative burdens. The study also found,

"When contracts are classified by their original sizes in FY 1982 dollars, the frequency of modification increases with contract size. The same is true of growth in contract value with two exceptions: contracts that started off between \$1 million and \$5 million in FY 1982 dollars grew a bit more than larger contracts and, more notably, the contracts showing the greatest percentage growth were the ones that started off between \$10,000 and \$25,000 (SBA, 1984)<sup>1</sup>."

These findings agree very favorably with those of the authors limited study.

#### Title II Contract Bidding and Growth

A bidding study identical to the 8(a) study performed on the NORTHDIV small business award data base, was conducted for Title II and large contractors. For Title II Contracts, the average bid exceeded the government estimate by 25.7% with a variance of 70.3, based on a population of 413 bids on 104 individual contracts. The result for large business, was an average of 6.23% over the government estimates with a variance of 38.8. The award prices for Title II contracts averaged +6.8% above the government estimate, while large business awards were -16.1% below the estimate. The variances for

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1. This is even more alarming when one considers that the data did not include contracts less than \$10,000.



these averages were 33.85 and 25.6 respectively.

The study of Title II and Large Business contract costs was taken one step further. Another data base was provided by NORTHDIV, that included all of the contracts over \$10,000, awarded since 1981 and completed as of 30 June 1988. This data base was cross checked with the small business award data base used in the previous analysis. The cross check was done to separate contracts awarded to 8(a) firms from Title II and Large contractors<sup>1</sup>. From this data base, the contract growth rate for the Title II contracts and large business contracts was calculated. Appendix F provides a copy of the data base and summary calculations of contract growth.

For Title II contracts it was calculated that an average of 4.4 changes are negotiated during the life of the contract, while large contractors average 14 changes per contract. The variance for this analysis is 5.1 and 4.4 respectively. The change in contract value increased an average of 2.29% of the bid price, for Title II Contracts, and large contractors increased the contract value by 6.86%. The average cost of the large firm's contract was \$3.6 million while that of the small contractor was \$885,000. Large contractors had more changes per contract, and the average values was also much

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1. Insufficient numbers of 8(a) contracts were available to do any further statistical analysis.



higher. The large contractors changes averaged \$17,150 and those of the small contractors averaged \$4,606.

For the most part, the figures presented above agree with those obtained by the SBA in their 1983 study. They found that competitively bid contracts averaged 4 changes per contract, and the contracts experienced a larger growth rate, and number of changes, as the cost of the contract increased. The study found, however, that the rate of growth was substantially higher than those recorded in this study; (20% and 49%) for small and large contractors respectively (SBA, 1984). The difference is undoubtedly due to the method of calculation and extent of the study<sup>1</sup>.

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1. The SBA study conducted over a three year period, incorporated a majority of the largest Federal contracting agencies. All of the contract costs were converted to constant 1982 dollars. A large number of contracts were eliminated from consideration for reasons too numerous to list. The eliminated contracts accounted for over 44% of the Federal contract actions during the period of study.



## CHAPTER 11

### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

The Small Business Administration was established in the early 1950's to provide a means for minimizing the unfair advantage large, established firms, had in the market place. Early programs were designed to assist businesses to become more competitive and hence, ensure the government received quality goods at a fair price. The early programs also attempted to ensure no one firm was able to command the market place, thereby, being given the opportunity to control prices and supply.

As time progressed the SBA's programs were diverted more toward social and economic equality, than business assistance. In an attempt to achieve social equality the focus of the SBA programs changed from small business versus large business, to one of "fair share." The goal now is to provide each social and economic group, within the small business community, its "fair share" of the Federal dollar.

The largest, socially targeted program, is the Small and Disadvantaged Business (8(a)) program. The 8(a) program is aimed toward assisting minority owned businesses to become





self sufficient through a process of management training and the award of non-competitive government subcontracts. A number of studies have concluded that this program results in increased contract costs with minimal benefits. Bid costs have been estimated as high as 30% above competitive contract costs, with growth rates estimated at an additional 20% (SBA, 1984). Many participating contractors, view this program as an end unto itself, with little interest in developing into a self sufficient firm. The program, through poor management and poorly defined guidelines, limits its assistance to a very small portion of the enrolled eligible firms. In spite of its limitations, the 8(a) program has assisted some 1,287 firms to become viable, competitive businesses in the first 20 years of operation. (Luke, 1988).

The effectiveness of this program was best summed up by the GAO in its 1981 report,

"The program has done too much for too few for too long (GAO, 1981)"

Unlike the 8(a) program, the Small Business Set-Aside program appears to be essential to the well-being of the nation. It is difficult to say, to what extent the Title II program has assisted the nations economy, or fostered the creation of new businesses. The SBA did conduct a cost



benefit study of the program in 1969, and concluded the benefits exceeded the cost by a ratio of 9.5 to 1 (Bothmer, 1973). Based on the arguments and analysis presented in this paper, it is obvious that the construction industry has benefitted.

The previous chapter indicated the differential in bid prices, between large and small contractors, was 19.4% (25.7%-6.3%) of the government estimate. It was also shown that large contractors tend to have contract growth in excess of 49% of the original bid amount (SBA estimate). Without the bidding restrictions imposed by the Title II program, large contractors would be almost assured of receiving the contracts they want, without even changing bidding strategy or profit margins. Once the contract is awarded, the owner would suffer through significantly higher cost growth. The predominant small contractor would suffer significantly and eventually go out of business.

The overall, direct impact the SBA programs have had on the construction industry is relatively slight. Too few firms participate in Federal procurement to make a significant impact on social or economic conditions across the country. The Federal government does provide a significant dollar amount to the construction industry each year, well over 50% of which goes to small businesses. However, the construction



industry is predominantly small business, so limiting bids to small firms has not significantly reduced competition. What it has done is reduced cut throat competition by large firms.

The SBA was established with the intention of distributing Federal procurement dollars to small businesses in proportion to their share of the industry. The method employed by the government has attempted to distribute procurement dollars in proportion to the small business/large business ratio which exists in the private sector. The same ratio does not exist among the firms participating in government procurement. As a result, rather than distributing the procurement dollars to a fair share of the industry, a high percentage of federal procurement money goes to a relatively small segment of the small business community. Once again, the government is leaning toward, "doing too much for too few."

The number of firms utilizing the remaining SBA programs (bonding, loans, management assistance etc) is insignificant. Although the business survey results indicated that a few firms had utilized the bonding program during the early years of their businesses life, the overall participation was only 8.7% of the firms surveyed. The likelihood of these programs making a significant impact on the construction industry is remote.



## Recommendations

With the number of valuable SBA and SCORE resources available to the small business owner, it is unfortunate that they are not more fully utilized. It is especially distressing to think that the SCORE volunteers can provide years of experience free of charge, and yet, businesses fail to take advantage of it. It is shameful that the small business owners have the potential resources of every major university and government research facility at their disposal, and yet it is not even realized. Finally, the SBA itself condones charging the government higher than "fair" prices, in order to cover contractor inefficiency. What should be done about the concerns expressed above?

It appeared to the author, the offices of the SBA were far too compartmented to work efficiently. A number of the personnel interviewed for this paper indicated that few, if any, referrals were made between offices within the SBA. I believe partly for this reason, the GAO found that the SBA staffs were overworked and unable to perform basic management training evaluations (GAO, 1982). Had internal SBA referrals been performed, more businesses could have been assisted by SCORE and SBDCs. The author's recommendation to the SBA would be; to strive for more internal communication and referrals





to other offices, including the SCORE counsellors. In fact, it is the author's opinion that SCORE should be the first place that a business owner goes before seeking an SBA loan or other assistance.

The effectiveness of the business management assistance programs, are research programs is hampered by a severe lack of publicity. The potential of these programs is virtually limitless, unfortunately, the public is not aware that they exist. The benefits generated by publicizing these programs would, undoubtedly, far outweigh the costs.

The SBA has the appearance of a conflict of interest in the administration of the 8(a) program. Each SBA office involved in negotiating 8(a) subcontracts or change orders should make a concerted effort to remove the apparent conflict. Such actions could include assigning the negotiation to a team from another office, or simply, ensuring the negotiators are not aware of the government estimate prior to the negotiation. Selecting negotiators unfamiliar with the government estimate would remove some scrutiny of the program, and assist the SBA in evaluating what the "true" market price is.



In conducting the second phase of the construction business survey, the author received many inquiries about the bonding program. It appeared many construction firms were reluctant to award contracts to small firms utilizing SBA backed bonds. The contractors fear the bonds are, "a bond of last resort", and therefore present a higher risk of default. Some concern was expressed that it would be difficult to collect on the bond in the event a contractor failed to perform. The SBA should publicize, perhaps to the contractors on the PASS listing, the facts about SBA backed bonds. Informing prime contractors of the facts could assist a few more struggling firms.

Lastly, the SBA should attempt to establish a system for monitoring its progress in relation to the established SBA goals. Except for contract actions in excess of \$25,000, the SBA has no central data base. Banks providing loans, surety companies providing bonds and research institutes assisting businesses, do not provide the central SBA office any continuing information about their activities. This is not to advocate more bureaucratic paperwork, however, knowing the utilization of the program would be helpful in evaluating the effectiveness and the cost of the SBA.



In summary, the programs sponsored and supported by the SBA have potential to significantly help the small business owner and construction industry. The major programs as they are now organized are far too restrictive to provide a significant impact on new business starts. The management assistance and research programs have significant potential, but are not publicized and therefore are not utilized sufficiently to significantly affect the economy. Lastly, the loan and bonding programs, in the opinion of the author, are well organized and provide an essential service at a reasonable rate; no significant changes are required.

#### Further Research

Further research in this area, at the scope attempted here, would be difficult. Far too few records are kept on the construction industry, and its performance in the Federal and private sectors. Once the construction data base is established and operating at Indiana University, perhaps some of the data gaps will be filled, and the effectiveness and cost of Federal contracts can again be studied.

Two other related areas of interest include: determining the percent of graduated 8(a) contractors who have continued operation and their rate of growth compared to other firms. Secondly, compare the private sector, small business award



ratio, to that of the Federal Government. A study similar to those suggested would give an indication of what would happen in the small business community without government intervention. They would also provide another measure of the SBA program impacts.





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APPENDIX A  
CORRESPONDENCE





Date: 25 March 1988

From: Alan M. Wironen, LT, CEC, USN  
To: Commander, Southern Division, Naval Facilities Engineering  
Command, Charleston SC

Subj: IMPACTS OF SMALL BUSINESS SET ASIDE CONTRACTS ON THE  
CONSTRUCTION INDUSTRY

1. As part of the masters degree requirements at Georgia Tech, I am researching the impacts that the small business set aside contracts have had on the construction industry. I would like to obtain your assistance and the cooperation of your engineering staff and ROICC personnel during the data collection phase of this project (April and May 1988).

2. I would like to visit your office to review contract records and compile a database of contract costs and durations. I will be interested in unrestricted and SBA contracts, and some contracts awarded prior to 1978 to be used as a comparison. I may also be interested in talking with your Small and Disadvantaged Business representative.

3. To make coordination easier, could an individual be assigned as my point of contact? I can be reached at:

Tel: (404) 951-8098

1049 Powers Ferry Rd.  
Apt. 2600-4  
Marietta, GA 30067

NROTC Unit Georgia Inst. of Tech  
225 North Avenue NW  
Atlanta, GA 30332

4. Any assistance you or your staff can provide will be greatly appreciated.

Very Respectfully,

Alan M. Wironen  
LT, CEC, USN



Alan M. Wironen  
1049 Powers Ferry Rd.  
Apt 2600-4  
Marietta, GA  
30067  
17 March 1988

Small Business Administration  
Office of the Administrator  
Washington, DC  
20416

Dear Sir:

To partially fulfill the masters degree requirements at the Georgia Institute of Technology, I am doing research on the problems faced by small construction companies. Several of your annual publications provide statistics on small businesses as a group, however, I have had some trouble finding statistics specifically for small construction firms. Would it be possible to extract the information I need from the data used to calculate your statistics? I am looking for data that relates the failure rate of small construction firms prior to the set aside (8a) legislation, and the present.

The amount of data I require is relatively small. A count of the number of construction firms that failed (using the Dunn and Bradstreet Definition) in the years prior to, and after the legislation. Sufficient years should be looked at to provide about 40 to 50 failures. I will also need the total count of construction firms looked at, whether failed or not, corresponding to the period before and after the legislation. Additionally, if it is available, the number of years the failed firms were in operation prior to failure.

If the information requested is available, but your personnel do not have time to extract it, I can do the work myself if you'll open your records to me.

If your organization does not have the information I've requested could you forward my letter to the appropriate office. I would also appreciate a letter indicating who the point of contact is at that office.

So that I may carry on with my research a preliminary response to this inquiry by 15 April 1988 would be appreciated. I apologize for the short notice.

Sincerely,

Alan M. Wironen



Alan M. Wironen  
1049 Powers Ferry RD.  
Apt. 2600-4  
Marietta, GA 30067  
18 April 1988

Dear Sir:

I am a graduate student at Georgia Tech in the Construction Management program. As part of the Masters Degree requirement, each student must submit a research paper to the faculty. My topic is "Small Business Administration Impacts on the Construction Industry."

I am conducting a survey of the construction firms operating in the Atlanta, Georgia area, as part of the research for my paper. I would appreciate you taking a few minutes to answer the questions on the enclosed survey form, then forward it to me in the attached envelope.

Please feel free to make any clarifying remarks on the form. If you have any questions about my paper, the Small Business Administration construction involvement, or the survey form; please feel free to call me at 951-8098.

All responses to this survey will be kept in confidence. If you would prefer not to include the company name on the survey form, that would be fine, but I would like to have a telephone number in case I have questions about your responses.

Sincerely,

Alan M. Wironen  
Professional Engineer



APPENDIX B  
INTERVIEW SUMMARIES





CONVERSATION SUMMARY  
WITH MR EUGENE MERRIDAY  
LOANS AND BONDING  
6 JULY 1988

1. The Small Business Investment Companies are administered from Washington, no local administrator.
2. SBIC must be licensed by the SBA to make loans. Provides additional resource for small business to receive equity and venture capital.
3. SBIC is a group of individuals and businesses that provide their own investment capital. SBA then matches their initial money.
4. SBIC loans are for any small business. Promote and foster small business profitably and with minimal losses. Loan criteria is developed by owners of SBIC and SBA application criteria.
5. Section 301(d) is a minority entrepreneur SBIC. Loans limited to minority small businesses.
6. Maximum money provided by SBA to SBIC is a ratio of 10:1, to the money provided by the SBIC founders.
7. SBIC's are for potential higher return businesses requiring higher equity needs and loan funds. More for venture capital and innovative businesses that have a high potential for growth. Two types of loans; equity loans for growth investment or loans that will be repaid.
8. Equity investment cannot exceed more than 49% of the business equity. Therefore cannot be a controlling interest in the company.
9. Who benefits from the SBIC loans since they don't usually provide small loans. Small is defined differently for each program.
10. Surety Bond Program, Small is defined as 3.5 million.
11. Interest rate and terms for SBIC's are usually higher than regular banks and SBA subsidized loans. Not much higher or it would eliminate any desire to get this loan. It is no easier to obtain an SBIC loan than a conventional loan. SBIC is supposed to profit so it will not relax its investment criteria.
12. SBA direct loans can be received from any bank. Being governed by FDIC and FSLIC makes them eligible for SBA backing, if they opt for the backing.



13. Lender has the option to have it backed by SBA or provide the loan himself, without SBA backing (Lender has first option on any loan).

14. To obtain a SBA backed loan, firm must first develop a business plan ( With or without the assistance of SCORE). The lender would then either grant the loan, deny it or choose to have it backed by SBA. Borrower has no say in who provides the money.

15. Borrower must meet the banks lending criteria, SBA does not dictate the conditions of the loan. The SBA feels that the bank is in business to make money, they are therefore responsible.

16. If the bank decides to have the loan backed by SBA he must submit the loan guarantee to the SBA. The SBA has certain criteria that a loan cannot be used for:

- a. Speculative construction
- b. Rehab of private property
- c. Repayment of loans
- d. Cannot be a non-profit enterprise
- e. Newspaper or magazine
- f. Floor Plan Financing-Automobile financing
- g. Gambling
- h. Real Property held for resale or investment
- i. Speculation
- j. Lending or investment
- k. Monopoly
- l. Pyramid sales plans
- m. Illegal activity
- n. Individual whose business ownership, management or control, is by an individual who is on parole, probation or pending charges.

17. Loan terms are competitive with the private banks, otherwise Government would be in direct competition with the private banks. Banks would not be willing to lend using SBA backed loans. May loan up to \$500,000.

18. Scrutiny of credit history is the same for SBA backed loans and regular loans. Looks at principals experience, business plan, market for services, personal capital etc.

19. Direct SBA loan is received using the same procedure as standard loans, except the borrower must transfer his business plan to an SBA form, and submit it to the SBA district office. Borrower must be refused in writing by two other banks. Rationale is to eliminate direct competition for private banks. Very limited funds therefore loans are limited to a maximum of \$150,000.

20. Banks may have refused to loan money for any reason without having to be answerable for them. The SBA does have to be answerable, and so will again review the borrowers credit



history. If the risk is reasonable and the borrower is responsible, a loan may be provided. This program provides an additional source for business capital.

21. SBA in reviewing a loan application looks at:

- Business experience
- Formal Education
- Potential Market
- Credit History
- Size of Loan
- Board of Directors
- Management capability
- Business Plan

22. No easier to get a direct SBA loan than any other loan.

23. A Local Area development Company is a group of individuals, partnership, business leaders, local leadership etc, who have grouped together to promote business development in a depressed area. Provide some of their own capital usually with bank participation which is matched 60/40 by SBA.

24. Small Businesses go to the Local development company and apply for a loan. On behalf of that business and with his attendance, the business receives a loan from a local bank, the SBA then matches 40% of the loan.

25. Special Contractor Loans- For contractors who cannot finance their contracts. The SBA will guarantee 100% of a loan provided by a bank. The loan can cover only direct costs of the contract. The term of the loan is the contract period and payments are made after the receipt of the progress payments. Rates are competitive with open market. Banks normally not willing to make similar loans without SBA guarantees, because of performance risks. Again the criteria for making the loan depends on the bank. Primarily for ensuring positive cash flows on the job.

26. If a contractor goes into the red and the loan isn't paid, the SBA has a personal guarantee, so they could put a lean on the owners property.

27. May obtain many similar loans provided the total doesn't exceed \$500,000.

28. No disaster loans unless the President declares the disaster. Includes loans to businesses and private property (houses included).

29. Economic disaster loan is only for businesses who have suffered due to natural disasters.

30. Loans are monitored through the banks, by submitting loan portfolios and monthly reports. No periodic checks are made of the businesses themselves.



31. If business does not pay its loan, the SBA leaves the collection up to the bank. The SBA doesn't get involved until the bank asks for his guarantee. The bank can do this at any time regardless of the status of the loan. In this case the payments are sent to the SBA. Has the advantage of allowing the SBA to service loans up to 500,000.
32. SBA feels that the banks have more experience handling commercial loans and have been in business longer than the SBA so they should be able to handle problem loans.
33. Businesses that go belly up, the bank has two options.
  1. They can liquidate the loan themselves or
  2. Request the SBA guarantee and let the government liquidate the assets.
34. SBA doesn't provide any direct bonds. The SBA guarantees payment bonds, performance bonds and bid bonds through commercial bonding companies.
35. It is substantially easier to obtain a SBA bond than commercial ones, because commercial bonding companies like to deal with firms with volumes of \$20 mil and net worth and working capital exceeding 40 million. Thus the creation of SBA bond program.
36. SBA uses the same check and underwriting criteria as commercial firms. Except requires 10:1 working capital ratio and same criteria as loan criteria (ie. owner experience etc.). For new companies the SBA looks at the firms plans and potential as well as the applicants experience.
37. Direct correlation between work on hand and working capital, therefore the SBA looks at active jobs and capability to do the work. Even if the working capital is from a bank, the SBA feels that the bank has looked at the capability of the firm.
38. SBA looks carefully at the expertise and experience of the company. ie. An electrical contractor couldn't get a bond for a plumbing contract unless he had hired expertise in plumbing.
39. After first bond is issued, the SBA may or may not review the companies capabilities, if he is applying for similar work of similar size.
40. Default and failure would very negatively affect the ability of a firm to receive a bond. Probably would not receive another bond unless the courts determined that the failure was not the contractors fault.
41. 80% guarantee for all bonds.
42. Failure is resolved by the bonding company with the SBA





providing the Guarantee only after the resolution of the claim.

43. The bonding company applies to the SBA to underwrite the bond. The bonding company agrees to comply with the SBA bond requirements. The cost of the higher risk is spread over all bond premiums

44. Bonds are usually significantly more expensive. \$24/thousand while commercial get \$14/thousand. The SBA receives \$6/thousand directly plus 20% of the surety company portfolio.

45. Sam at a local bonding company confirmed that, the SBA Guarantee bonds go through the same approval procedure and criteria as all other bonds. The SBA bonds are for small business. Commercial bonds require the company to have a high equity/working capital ratio and show a profit over the last 5 years. Since the SBA is guaranteeing that bond, the bonding company can relax these two requirements. The SBA guaranteed bonds do not present a higher risk than those of a regular commercial bonding company.

46. SBA guarantee bonds can only be issued for businesses that do not gross more than 3.5 million per year.

47. Bondability is also based on job increases of no more than 200%.

48. Competency determinations are used only by Federal Government. Based on Technical competency primarily and check that sufficient capital exists for this particular contract.



CONVERSATION SUMMARY  
JAMES C. PARKER  
ATLANTA SBA PROCUREMENT ASSISTANCE  
21 April 1988

1. The SBA charter is to aid, counsel, and assist. The objectives are stated in the SBA act.
2. The DFAR provides laws on how to appropriate and obligate federal funds.
3. In the last 4-5 years there has been more changes to the S.B. Act than since 1959.
4. Position and Title: Deputy Assistant Regional Administrator For Procurement Assistance.
5. Provided a procurement assistant telephone directory instead of an organizational chart of the SBA.
6. National level - Office of Congressional and Legislative Affairs
  - Public Communications
  - Advocacy
  - Inspector General
  - Chief Council
  - Management and Administration
  - Comptroller
  - Information Resources Management
  - Special Programs
  - Business Development
  - Finance and Investment
  - Innovation Research and Technology
  - Procurement Assistance
  - Minority Small Business
  - Capital Ownership
  - Hearing and Appeals
  - International Trade
7. SBA has total authority to determine whether a firm is a small business.
8. Regional level- same as national level except certain programs have district offices (responsible for that state or a portion of that state). They are:
  - Minority Development
  - International Trade
  - Financial Investment
  - Business Development
9. Each office and location works independently until, a problem or specific assistance is required. So essentially each level in



the SBA works on an "interface" basis only.

10. Set aside- SBA is chartered under the law; which allows the SBA to identify contracts for which only small businesses can bid.

11. 8(a) Program is for economically and socially disadvantaged businesses. Once qualified, can be granted contracts.

12. Reviewed the appeals process. No longer set aside program for women owned businesses. They are not considered a minority. SBA does provide assistance for the women owned businesses, but not eligible for set-asides.

13. 8(a) is not considered a set aside. The 8(a) board selects a contractor for a particular contract. It is tending more toward competition but it has not reached that point yet. Contracts offered to the SBA reviewed for use in the 8(a) program. Contractor is chosen by the selection board based on the company portfolio, capability, experience, work in progress, how they have progressed through their business plan, and where they are in the 8(a) program. The SBA attempts to help the contractor progress through the program from 100% 8(a) and set aside contracts, to self marketing and only a little government assistance.

14. The loan program does not mesh with the government set aside programs, in that, it is available to any small business regardless of whether they are bidding on government contracts or not.

15. Contact District Office: Fred Stone or Johnny Jones. Get interface between district and regional office.

16. Business development personnel will provide help in establishing a new business. Margaret Pittman or Jim Hunter 347-3683.

17. Summarized what assistance was available through the SBA.

18. SBA assistance is provided to small contractors for the period that they are a small business. 8(a) program is 5 to 7 years. Graduation from the program is based on achievement and assistance period. When the company enters the program 8(a) they develop a plan which shows where they are now, where they intend to be in 5 years and an outline of how they will get there. This plan includes, \$ figure of where the firm should be income wise, production wise, and plant load. When they become self sustaining, self advertising, and achieve level production, they graduate.



19. Margaret Pittman's job is to take the 8(a) offerings and match them to the company's capabilities. Mr. Hunter takes the matched job, and contractor, and helps to negotiate the contract. He puts together the solicitation package and helps to administer the contract.

20. Non government contractor business development: Henry Pair 347-2441.

21. SBA monitors its effectiveness through PCRs a Procurement Center Representatives. SBA tracks itself by how they are aiding new businesses, giving opportunities to bid, by listing a firm on a source list. They check what % of \$ went to small business as compared to non government, for a particular region or facility.

22. May be able to get statistics on business failures through the 8(a) office, or possibly from the business development office at the district office.

23. Contracts that a set-aside are based on having at least two capable firms that can bid on the contract.





Interview Summary  
Mrs. Margeret Pittman  
8(a) Program  
30 June 1988

1. Position is: Senior business Opportunity Specialist.
2. Become qualified for 8(a) by meeting eligibility requirements contained in Public Law 95-507 (Copy provided), and recent changes to 13 CFR 124 effective Oct 8, 1986.
3. Company must be 51% owned, daily managed, and controlled, by socially and economically disadvantaged. Must have resources adequate for procurement, management, technical assistance, and financial assistance. Must be able to perform under the SIC code for the contract offered, and must be small business.
4. To match contracts and firms, we look for capacity, (financial and bonding), experience (identical similar or related), must have been approved to perform under the SIC for the contract being offered.
5. 8(a) does not eliminate new firms from consideration. Only the Associate Administrator for Minority Small Business, Capital Ownership and Development, has the authority to eliminate a firm from consideration.
6. The Associate Administrator will find a firm ineligible if the owner and principal have had no experience performing in that SIC. This is primarily an evaluation of the firms potential for success. (item#6 on form?)
7. Six Steps in determination of eligibility.
8. Application process is in two stages. First is, what do you do. Second stage is; convincing the SBA that he can conduct and manage the particular business. This comprises the first five steps of eligibility.
9. Stage two is only filled out after the SBA has determined there is a continuing need for firms in that SIC. Contracting Agencies will submit weekly, monthly or quarterly lists of pending contracts.
10. Once determined that a SIC is needed, then stage two looks at the capability of the firm, capacity (bonding and financial), experience, location of work, approved support level.
11. All contractors with this SIC capability are given equal consideration for each job. The contractor is then matched to the items listed in #10 to make a selection for the particular job.



12. 8(a) is only open to minority owned or operated businesses. The award is then given to contractors according to a priority list.
13. Once in the program the firm must develop a business plan. Includes where he plans to be and how to get there.
14. The 8(a) firm is assisted in staying on his plan through the SBA programs and through consultants contracted by SBA to help resolve specific problems.
15. If a contractor has an identifiable problem the SBA will provide assistance in overcoming the problem through contracted consultant services or in house assistance. Provided only for the period of the problem.
16. SBA will not provide continuous assistance to a firm, since the contractor has contracted to perform the work. It would be like SBA paying the contractor for not doing anything. The contractor must also maintain his eligibility status while in the 8(a) program (i.e. remain small and minority owned).
17. The goal is not to develop big business from small ones. If a contractor does not perform in accordance with his business plan, the SBA will provide assistance as necessary, but if he still does not perform, the plan will be revised.
18. Conditions for termination include continued inadequate performance.
19. Contracting agency has the authority to accept or reject a recommended contractor, but the SBA can appeal to the head of the agency. Usually, the contracting officer simply states he wants a different contractor, because the recommended one did not perform adequately on a previous contract.
20. Graduation is simply completing the 6 year assistance program. (7 years if an extension is approved)
21. Completion is when a firm becomes big business, or performs his business plan, and there is no higher target that he wishes to achieve. If there is an additional goal, the contractor may revise his business plan and continue in the program.
22. The program period begins at the time of the first contract award and extends for five years. The contractor may, at the end of the 5th year, request an extension up to the end of the 7th year.
23. The contractor may perform the contract awarded at the end of the program period and all options on it, but will not receive any additional 8(a) contracts.
24. The contractors are given a heavy load of SBA contracts at



first, and weaned as the assistance period progresses. The first contract is usually a simple one.

26. 8(a) firms are tracked after graduations by the central office.



SUMMARY OF DISCUSSION  
WITH  
KEN DAUGHERTY  
NORTHDIV DEPUTY FOR SMALL BUSINESS  
16 June 1988

1. Provided summary of what is to be studied.
2. Problems Ken sees with topic:  
Each contract has a specified completion date  
No database would be able to provide data that would  
compare completion dates. Possibly look at liquidated  
damages.
3. Provided a database of small and large business bid data.
4. Position is: Labor relations specialists and deputy for small  
business.
5. SBA goals are to promote awards to small and small  
disadvantaged sectors.
6. SBA doesn't track the number of contractors. It does track  
the number of contracts and \$. Industry is too easily entered or  
exited to track contractors.
7. 85% of contracts in construction industry are set aside for  
small business.
8. It is the exception to advertise as non set-asides, if the  
contract is under 2 mil dollars. Over \$2 mil, the contracts are  
reviewed on a case by case basis. If it can reasonably be  
expected that we will get a fair market value, and more than two  
bidders are interested, then the contract will be set aside for  
small business.
9. Contracts not advertised for small business require  
justifications for not going to small business.
10. Procurement of over \$2 million are hard to get small  
business to bid on ( bid climate), so may allow sole source or  
unrestricted advertisement.
11. Specialty equipment such as generators that were made by a  
specific company, with unique parts, are advertised unrestricted  
or sole source.
12. All non small business advertisements require concurrence of  
the SA at the regional level.
13. Each buying activity has a procurement center representative  
(Regional level SA person)





14. Each activity may identify which contracts they want to set aside for 8(a). Based on the number of available contractors, available acquisition, lead time, and complexity of the procurement.

15. Another method of setting aside 8(a) contracts, is through search letters. SA asks for a specific contract for a specific contractor. Pertinent information is compiled by the SA and forwarded to the contract specialists, and contract manager, for their opinion. Some conflicts with other contractors result due to this process.

16. 8(a) participation is for a period of five to six years, or until they become large business.

17. If incapable of operating without SA assistance, the contractor must ask the SA to remain in the program.

18. After graduation, the SA does track businesses that have graduated from the program. (Unable to provide a point of contact.)

19. Has experienced several abuses of the system. Many fraudulent attempts to obtain set asides.



DISCUSSION  
WITH  
B. J. KOEJLER  
PHILADELPHIA PCR  
16 June 1988

1. Nobody keeps track of businesses after graduation from the 8(a) program.
2. The district office will monitor the 8(a) contractors while they are in the program.
3. If a company goes bankrupt while in the 8(a) program, the SBA will do an analysis of why.
4. The SBA is there to keep the company from going belly up. Does not recall any businesses going belly up while in the program, unless they got into legal trouble.
5. Most failures occur within two years due to poor management.
6. No abuses of the Set-Aside program they are aware of since, it is difficult to manipulate the system when several contractors are involved.
7. Contract brokering to large business isn't likely now, since the prime must do 25% and must reveal that he intends to let out some of the work. The subcontracted work must also be accomplished with a small business firm.
8. When the 8(a) program first started, the program left itself wide open to abuses such as front companies. Now with the 50% and 25% rules, the small contractor is the person who will be doing the work, not some other contractor.
9. Figure head companies representing an 8(a) contractor still happen, but it is difficult to prove. More common is the case where a legitimate 8(a) company will front the work for a non 8(a), or large company.
10. Prices of work can be influenced by Davis Bacon wages over a time period.



DISCUSSION  
WITH  
DELORES O'MALLY  
CONTRACT SPECIALIST  
16 June 1988

1. The SBA doesn't provide any assistance to contractors and especially not to those persons administering the contracts.
2. Somebody should define their role and how it relates to our goals.
3. NAVFAC has a better record of giving work to small business than any other agency.
4. The SBA gets involved in debarment because they are assisting the contractors? No, they don't assist the contractors. If they had been involved with the contractors more and provided some assistance, they wouldn't get into trouble.
5. The SBA dictates, without regard to capability, who will get what 8(a) contract. The SBA tends to provide 8(a) contractors with MILCON (larger jobs), rather than match the job to the firm's capability and experience. A better method would be to try to match the 8(a) contractor with a job that meets their capability.
6. The SBA doesn't want to be involved with financially insolvent contractors. The loans the SBA is providing are given to companies that can be underwritten, not to those that need management assistance and money to get back on their feet.



APPENDIX C  
CONSTRUCTION INDUSTRY  
COMPOSITION





7 COMPOSITION OF SMALL CONTRACTORS

From U. S. Census data and size standard of \$25 and \$9.5 million, which roughly correspond to the SIC size standard for small contractors

NOTE: Individual data does not add up to the total due to no in the census bureau data.

|                          | 1967  | 1972  | 1977  | 1982  |
|--------------------------|-------|-------|-------|-------|
| % General Contractors    | 34.55 | 35.17 | 35.10 | 32.52 |
| % Specialty Contractors  | 59.56 | 60.90 | 59.49 | 64.91 |
| % Other Small Contractor | 2.94  | 0.79  | 1.10  | 1.09  |
| % Large Contractors      | 2.55  | 2.78  | 4.27  | 1.29  |
| Total Small Contractors  | 97.45 | 97.61 | 99.79 | 99.71 |

\* Others include operative builders and developers

8 EMPLOYMENT BY SMALL CONTRACTORS

From U. S. Census data and size standard of \$25 and \$9.5 million, which roughly correspond to the SIC size standard for small contractors

NOTE: Individual data does not add up to the total due to no in the census bureau data.

|                          | 1967  | 1972  | 1977  | 1982  |
|--------------------------|-------|-------|-------|-------|
| % General Contractors    | 33.79 | 32.45 | 29.59 | 26.56 |
| % Specialty Contractors  | 36.05 | 42.92 | 42.50 | 44.54 |
| % Other Small Contractor | 26.90 | 24.45 | 28.52 | 25.42 |
| % Large Contractors      | 0.27  | 0.29  | 0.25  | 0.29  |
| Total Small Contractors  | 99.79 | 99.77 | 99.72 | 99.71 |

\* Others include operative builders and developers



CHANGE IN NUMBER OF SMALL FIRMS

From U. S. Census data and size standard of \$17 million, which roughly corresponds to the SIC size standard for small general contractors

|                          | 1967   | 1970   | 1977   | 1982   |
|--------------------------|--------|--------|--------|--------|
| All General Contractors  | 129044 | 161049 | 187266 | 151367 |
| Large General Contractor | 1636   | 1684   | 4306   | 2369   |
| Small General Contractor | 127408 | 159365 | 182960 | 148998 |
| % Small General Contract | 98.72  | 98.86  | 97.70  | 99.11  |

CHANGE IN EMPLOYMENT BY SMALL FIRMS

From U. S. Census data and size standard of \$17 million, which roughly corresponds to the SIC size standard for small general contractors

|                          | 1967    | 1970    | 1977    | 1982    |
|--------------------------|---------|---------|---------|---------|
| All General Contractors  | 1756060 | 1976999 | 2067320 | 1649794 |
| Large General Contractor | 596497  | 609711  | 871901  | 749970  |
| Small General Contractor | 1160625 | 1367188 | 1226029 | 1099924 |
| % Small General Contract | 66.09   | 69.19   | 68.44   | 69.40   |

CHANGE IN EMPLOYMENT BY SMALL SPECIALTY CONTRACTORS

From U. S. Census data and size standard of \$9.5 million, which roughly corresponds to the SIC size standard for small special contractors

|                          | 1967    | 1970    | 1977    | 1982    |
|--------------------------|---------|---------|---------|---------|
| All Special Contractors  | 1566090 | 2106699 | 2136020 | 2009190 |
| Large Special Contractor | 346761  | 301679  | 313701  | 490933  |
| Small Special Contractor | 1239629 | 1775020 | 1826319 | 1908257 |
| % Small Special Contract | 79.10   | 84.07   | 86.00   | 79.67   |



CHANGE IN NUMBER OF SMALL SPECIALTY CONTRACTORS

From U. S. Census data and size standard of \$9.5 million, which roughly corresponds to the SIC size standard for small special contractors

|                          | 1967    | 1972    | 1977    | 1982    |
|--------------------------|---------|---------|---------|---------|
| All Special Contractors  | 221,789 | 258,982 | 287,570 | 285,409 |
| Large Special Contractor | 3,664   | 2,274   | 2,095   | 2,945   |
| Small Special Contractor | 217,425 | 256,708 | 285,475 | 282,464 |
| % Small Special Contract | 98.04   | 99.15   | 99.27   | 99.02   |

CHANGE IN NUMBER OF SMALL CONTRACTORS

From U. S. Census data and size standard of \$25 and \$9.5 million, which roughly correspond to the SIC size standard for small contractors

|                     | 1967    | 1972    | 1977    | 1982    |
|---------------------|---------|---------|---------|---------|
| All Contractors     | 568,771 | 457,841 | 480,714 | 455,701 |
| Large Contractors   | 5,500   | 4,801   | 6,292   | 5,915   |
| Small Contractors   | 563,471 | 453,039 | 474,422 | 449,786 |
| % Small Contractors | 99.05   | 99.18   | 98.67   | 99.73   |

CHANGE IN EMPLOYMENT BY SMALL CONTRACTORS

From U. S. Census data and size standard of \$25 and \$9.5 million, which roughly correspond to the SIC size standard for small contractors

|                     | 1967      | 1972      | 1977      | 1982      |
|---------------------|-----------|-----------|-----------|-----------|
| All Contractors     | 3,436,265 | 4,145,779 | 4,272,659 | 4,275,070 |
| Large Contractors   | 942,189   | 951,090   | 1,181,572 | 1,229,778 |
| Small Contractors   | 2,494,076 | 3,194,689 | 3,091,087 | 3,045,292 |
| % Small Contractors | 72.68     | 76.82     | 72.33     | 71.43     |



APPENDIX D  
CONSTRUCTION BUSINESS  
SURVEY SUMMARY





CONSTRUCTION SURVEY  
RESULTS

- April 1988 initial survey of 100 mailed questionnaires:
  - 56 Responses received
    - 14 Classified as large general contractors
    - 4 Classified as Large specialty contractors
  
- May 1988 and June 1988 telephone survey conducted with 100 firms contacted.
  - 45 Responses received
    - 8 Classified as large general contractors
    - 6 Classified as large specialty contractors
  
- Total responses by small contractors 69
  - 63 General contractors
  - 6 Specialty contractors
  
- All contractors were listed on the Atlanta Builders Exchange membership list or the Atlanta AGC listing.
  
- Survey results show that none of the firms were publicly held companies.

| QUESTIONS (Numbers correspond to the survey form questions)                                               | NUMBER OF YES RESPONSES | AVERAGE % |
|-----------------------------------------------------------------------------------------------------------|-------------------------|-----------|
| 6. Are you a minority owned firm?                                                                         | 0                       | 0.0       |
| 7. Do you work on Federal Contracts?                                                                      | 24                      | 34.7      |
| 8. Have you owned or managed another firm?                                                                | 21                      | 30.4      |
| 8a. Is the firm still in business?                                                                        | 12                      | 17.4      |
| 9. Does your present firm use Federal Government assistance?                                              | 6                       | 8.7       |
| 10. Where you aware that the Small Business Administration provided the following? Has your firm used it? |                         |           |
| a. Guarantee loans                                                                                        | 40 /0                   | 60.0/0.0  |
| b. Management Training ...                                                                                |                         |           |
| Seminars                                                                                                  | 27 /3                   | 39.1/4.3  |
| Lectures                                                                                                  | 28 /3                   | 40.5/4.3  |
| Classroom                                                                                                 | 27 /3                   | 39.1/4.3  |
| Publications                                                                                              | 21 /6                   | 30.4/8.6  |
| c. Management assistance and organization                                                                 | 21 /0                   | 30.4/0.0  |
| d. Small Business Set-Asides                                                                              | 39 /0                   | 56.5/0.0  |
| e. 8(a) Contracts                                                                                         | 41 /0                   | 59.4/0.0  |
| f. Dispute Settlement                                                                                     | 18 /1                   | 26.1/1.4  |
| g. Bonding                                                                                                | 40 /6                   | 60.0/8.6  |



BUSINESS ASSISTANCE QUESTIONNAIRE

1. NAME OF ORGANIZATION:
2. NUMBER OF EMPLOYEES:
3. GROSS EXCEED 17 MILLION:        yes        no  
GROSS EXCEED 7 MILLION:        yes        no
4. HOW OLD IS YOUR FIRM:
5. WHAT TYPE OF CONTRACTOR ARE YOU (GENERAL, SPECIALTY):
  - a. ARE YOU A PRIVATE FIRM:    public    private
6. ARE YOU A MINORITY OWNED COMPANY:    yes        no
7. DO YOU WORK ON FEDERAL GOVERNMENT CONTRACTS:
8. HAVE YOU OWNED OR MANAGED ANY OTHER FIRMS:        yes        no
  - a. ARE THESE FIRMS STILL IN BUSINESS:        yes        no
  - b. ARE THE FIRMS PUBLIC OR PRIVATELY HELD:    public    private
  - c. NAME AND ADDRESS OF THE FIRMS:
  - d. AGE AT FAILURE:
  - e. YEAR OF FAILURE:
  - f. DID THIS FIRM USE ANY OF THE ASSISTANCE PROGRAMS  
PROVIDED BY THE SMALL BUSINESS ADMINISTRATION:    yes    no
9. HAS YOUR PRESENT FIRM USED GOVERNMENT ASSISTANCE:    yes    no
  - a. WHAT TYPE:
10. WERE YOU AWARE THAT THE SMALL BUSINESS ADMINISTRATION HAS  
THE FOLLOWING PROGRAMS, HAVE YOU USED ANY OF THE PROGRAMS:
  - a. GOVERNMENT GUARANTEE LOANS:    yes    no    yes    no
  - b. MANAGEMENT TRAINING IN THE FORM OF:
    1. SEMINARS:    yes    no    yes    no
    2. LECTURES:    yes    no    yes    no



3. CLASSROOM TRAINING:    yes    no    yes    no

4. PUBLICATIONS:    yes    no    yes    no

c. MANAGEMENT ASSISTANCE AND ORGANIZATION:

          yes    no    yes    no

d. CONTRACTS SET ASIDE FOR COMPETITION AMONG ONLY SMALL

BUSINESSES:    yes    no    yes    no

e. CONTRACTS WHICH CAN BE AWARDED TO QUALIFYING SMALL

MINORITY OWNED BUSINESSES, WITHOUT COMPETITION.

          yes    no    yes    no

f. ASSISTANCE IN OBTAINING CONTRACTS AFTER THE CONTRACTING

OFFICER HAS DETERMINED THAT A FIRM CANNOT BE RESPONSIVE.

          yes    no    yes    no

g. ASSISTS IN OBTAINING BONDING FOR SMALL FIRMS WHICH HAVE

HAD A QUESTIONABLE PERFORMANCE HISTORY.

          yes    no    yes    no



APPENDIX E  
CONTRACTOR BIDDING RECORD





TITLE II  
CONTRACTORS  
BIDDING RECORD

FROM NORTHDIV SBA DATA 1981-1988

- Eliminated all bids not confirmed to be from Title II Contractors
- Eliminated all B(a) Contractor bids
- 104 Contracts
- 413 Individual Bids averaged
- CONTRACTS IN EXCESS OF \$10,000

BID PRICE  
ABOVE OR BELOW  
GOV'T ESTIMATE

$$n = 413 \quad \sum x^2 = 2313118$$

$$\sum x = 10630 \quad (\sum x)^2 = 112996900$$

$$\bar{x} = \frac{10630}{413} = +25.73\% \quad \text{Above Gov't Estimates}$$

$$s^2 = \frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1} = \frac{2313118 - \frac{112996900}{413}}{412}$$

$$s^2 = 4950.28$$

$$s = 70.35\%$$

- ALL CONTRACTS ARE IN EXCESS OF \$10,000
  - Eliminated all awards to non-Title II firms
  - 75 Contracts
  - 75 Awards Averaged
- } n was limited by the # of Title II awards recorded in the database.

AWARD PRICE  
ABOVE OR BELOW  
GOV'T ESTIMATE

$$n = 75 \quad \sum x^2 = 88036$$

$$\sum x = 510 \quad (\sum x)^2 = 260100$$

$$\bar{x} = \frac{510}{75} = +6.8\% \quad \text{Above Gov't Estimate}$$

$$s^2 = \frac{88036 - \frac{260100}{75}}{74} =$$

$$s^2 = 1142.81$$

$$s = 33.81\%$$

AVERAGE CONTRACT PRICE = \$1.7 Million



BA  
CONTRACTORS  
BIDDING RECORD

FROM: NORTH DIV SBA DATA 1981-1988

- ELIMINATED ALL NON BA BIDS
- ELIMINATED ALL UNCONFIRMED BA CONTRACTORS
- 33 INDIVIDUAL BIDS AVERAGED
- 20 CONTRACTS
- AVERAGE CONTRACT PRICE WAS \$1.2 Million.
- ALL CONTRACTS ARE IN EXCESS OF \$10,000

$$n = 33 \quad \sum x^2 = 472994$$

$$\sum x = 2478 \quad (\sum x)^2 = 6140484$$

$$\bar{x} = \frac{2478}{33} = 75.1\% \text{ above the Gov't Estimate}$$

$$s^2 = \frac{472994 - \frac{6140484}{33}}{32}$$

$$s^2 = 8966.2$$

$$s = 94.7\%$$

BID PRICE  
ABOVE OR BELOW  
GOV'T ESTIMATE

- ELIMINATED ALL NON B(A) AWARDS
- 12 AWARDS AVERAGED\*
- AVERAGE CONTRACT PRICE WAS
- ALL CONTRACTS ARE IN EXCESS OF \$10,000

$$n = 12 \quad \sum x^2 = 1069$$

$$\sum x = 97 \quad (\sum x)^2 = 9409$$

$$\bar{x} = \frac{97}{12} = 8.08\% \text{ Above the Gov't Estimate}$$

$$s^2 = \frac{1069 - \frac{9409}{12}}{11} = 25.9$$

$$s^2 = 25.9$$

$$s = 5.09$$

AWARD PRICE  
ABOVE OR BELOW  
GOV'T ESTIMATE

\* MOST OF THE B(A) BIDS WERE SO FAR FROM THE GOV'T ESTIMATE THAT THE CONTRACTS WERE READVERTISED AS TITLE II OR UNRESTRICTED CONTRACTS.



OPEN COMPETITION  
BIDDING RECORD

FROM: NORTHERN DIVISION SBA DATA 1981-1988

- CONTRACTS IN EXCESS OF \$10,000
- CONTRACTS CONSIDERED INCLUDE SET-ASIDE CONTRACTS BID ON IN ERROR BY LARGE CONTRACTORS AND UNRESTRICTED CONTRACTS BID ON BY SMALL FIRMS
- PROVIDES THE OPPORTUNITY TO MAKE DIRECT COMPARISONS WITH THE TITLE II AND 8(A) BIDDING RECORDS
- ALL DATA IS FROM THE SAME DATABASE AS THE 8(A) AND TITLE II ANALYSIS.
- 20 CONTRACTS
- 46 BIDS AVERAGED.
- 11 AWARDS MADE TO BIG BUSINESSES OF THE 20 CONTRACTS.

$$n=46 \quad \sum x^2 = 69635$$

$$\sum x = 289 \quad (\sum x)^2 = 83521$$

$$\bar{x} = \frac{289}{46} = 6.28\% \text{ Above the Gov't Estimate}$$

$$s^2 = \frac{69635 - \frac{83521}{46}}{45}$$

$$s^2 = 1507.1$$

$$s = 38.8\%$$

$$n=11 \quad \sum x^2 = 9413.0$$

$$\sum x = -177 \quad (\sum x)^2 = 31329$$

$$\bar{x} = \frac{-177}{11} = -16.1\% \text{ Below the Gov't Estimate}$$

$$s^2 = \frac{9413 - \frac{31329}{11}}{10} = 656$$

$$s = 25.6\%$$

BID PRICE  
ABOVE OR BELOW  
GOV'T ESTIMATE

AWARD PRICE  
ABOVE OR BELOW  
GOV'T ESTIMATE









| CONTRACT# | OFFEROR     | SECT | TYPE | EST             | GOV'T EST      | AWARD PRICE    | % OF GOV'T | % OF AWA |
|-----------|-------------|------|------|-----------------|----------------|----------------|------------|----------|
| 83-B-0087 | HUTCHINSON  | Y    |      | \$1,104,569.00  | \$1,665,000.00 |                | -33        | ERROR    |
| 83-B-0087 | LARK BRCS   | Y    |      | \$1,710,000.00  | \$1,665,000.00 |                | -40        | ERROR    |
| 83-B-0087 | MICHAEL F   | Y    |      | \$2,478,000.00  | \$1,665,000.00 |                | 47         | ERROR    |
| 83-B-0087 | NOVA GROUP  | Y    |      | \$1,168,000.00  | \$1,665,000.00 |                | -29        | ERROR    |
| 83-B-0087 | PAUL J BRG  | Y    |      | \$1,264,000.00  | \$1,665,000.00 |                | -23        | ERROR    |
| 83-B-0087 | RUTLER CON  | Y    |      | \$779,000.00    | \$1,665,000.00 |                | -54        | ERROR    |
| 83-B-0088 | ARNOLD M D  | Y    |      | \$1,180,200.00  | \$2,655,000.00 | \$1,172,000.00 | -56        | 1        |
| 83-B-0088 | G L C ELTE  | Y    |      | \$1,252,000.00  | \$2,655,000.00 | \$1,172,000.00 | -51        | 10       |
| 83-B-0088 | IFR BROTH   | Y    |      | \$1,408,000.00  | \$2,655,000.00 | \$1,172,000.00 | -47        | 20       |
| 83-B-0088 | MICHAEL F   | Y    |      | \$3,645,000.00  | \$2,655,000.00 | \$1,172,000.00 | 37         | 211      |
| 83-B-0088 | NOVA GROUP  | Y    |      | \$1,458,000.00  | \$2,655,000.00 | \$1,172,000.00 | -44        | 27       |
| 83-B-0088 | PHILLYSHIP  |      |      | \$0.00          | \$2,655,000.00 | \$1,172,000.00 | -100       | -100     |
| 83-B-0088 | RULER CONG  | Y    |      | \$1,172,000.00  | \$2,655,000.00 | \$1,172,000.00 | -56        | 0        |
| 83-B-0089 | ARNOLD M D  | Y    |      | \$1,429,021.00  | \$2,879,000.00 | \$1,429,021.00 | -50        | 0        |
| 83-B-0089 | G L C ELTE  | Y    |      | \$1,443,600.00  | \$2,879,000.00 | \$1,429,021.00 | -50        | 1        |
| 83-B-0089 | JAMES F CA  | Y    |      | \$2,778,000.00  | \$2,879,000.00 | \$1,429,021.00 | -4         | 34       |
| 83-B-0089 | LARK BRCS   | Y    |      | \$1,759,950.00  | \$2,879,000.00 | \$1,429,021.00 | -39        | 28       |
| 83-B-0089 | NBE KAM IN  | Y    |      | \$4,479,000.00  | \$2,879,000.00 | \$1,429,021.00 | 55         | 213      |
| 83-B-0089 | MICHAEL F   | Y    |      | \$3,429,000.00  | \$2,879,000.00 | \$1,429,021.00 | 19         | 140      |
| 83-B-0089 | NOVA GROUP  | Y    |      | \$1,660,000.00  | \$2,879,000.00 | \$1,429,021.00 | -42        | 18       |
| 83-B-0089 | PAUL J BRG  | Y    |      | \$2,164,000.00  | \$2,879,000.00 | \$1,429,021.00 | -24        | 54       |
| 83-B-0089 | PHILLYSHIP  |      |      | \$0.00          | \$2,879,000.00 | \$1,429,021.00 | -100       | -100     |
| 83-B-0089 | REITER CON  | Y    |      | \$1,498,000.00  | \$2,879,000.00 | \$1,429,021.00 | -48        | 4        |
| 83-B-0115 | HERB ELEVA  | Y    |      | \$788,570.00    | \$388,000.00   |                | 104        | ERROR    |
| 83-B-0115 | WESTLAW MN  | Y    |      | \$558,000.00    | \$388,000.00   |                | 55         | ERROR    |
| 83-B-0161 | A J ERVUD   | Y    |      | \$197,515.00    | \$128,000.00   | \$149,951.00   | 60         | 32       |
| 83-B-0161 | ANGELDA'S C | Y    |      | \$183,054.00    | \$128,000.00   | \$149,951.00   | 37         | 13       |
| 83-B-0161 | ATLANTIC C  | Y    |      | \$203,100.00    | \$128,000.00   | \$149,951.00   | 130        | 89       |
| 83-B-0161 | DR CONSTR   | Y    |      | \$161,000.00    | \$128,000.00   | \$149,951.00   | 31         | 7        |
| 83-B-0161 | DRIVE-IN C  | Y    |      | \$149,951.00    | \$128,000.00   | \$149,951.00   | 22         | 0        |
| 83-B-0161 | HAMILTON C  | Y    |      | \$228,450.00    | \$128,000.00   | \$149,951.00   | 86         | 62       |
| 83-B-0161 | JARRO BLOS  | Y    |      | \$168,381.00    | \$128,000.00   | \$149,951.00   | 33         | 3        |
| 83-B-0161 | KEN CONSTA  | Y    |      | \$188,320.00    | \$128,000.00   | \$149,951.00   | 27         | 4        |
| 83-B-0161 | MONAROE C   | Y    |      | \$288,000.00    | \$128,000.00   |                | 116        | ERROR    |
| 83-B-0161 | PULSAR CON  | Y    |      | \$184,444.00    | \$128,000.00   | \$149,951.00   | 50         | 23       |
| 83-B-0161 | SEVILLE CO  | Y    |      | \$259,263.00    | \$128,000.00   | \$149,951.00   | 106        | 69       |
| 83-B-0161 | WEISS & WD  | Y    |      | \$232,036.00    | \$128,000.00   | \$149,951.00   | 69         | 55       |
| 83-B-0191 | FLOORPAPA I | Y    |      | \$65,111.00     | \$52,000.00    | \$68,000.00    | 33         | 2        |
| 83-B-0191 | HARPTON BE  | Y    |      | \$147,000.00    | \$52,000.00    | \$68,000.00    | 133        | 112      |
| 83-B-0191 | LANE CO IN  | Y    |      | \$93,000.00     | \$52,000.00    | \$68,000.00    | 73         | 37       |
| 83-B-0191 | MADNUM INC  | Y    |      | \$95,400.00     | \$52,000.00    | \$68,000.00    | 83         | 40       |
| 83-B-0191 | RICHARD DE  | Y    |      | \$197,000.00    | \$52,000.00    | \$68,000.00    | 273        | 190      |
| 83-B-0191 | STELLAR IN  | Y    |      | \$59,800.00     | \$52,000.00    | \$68,000.00    | 34         | 2        |
| 83-B-0191 | TECH-LITE   | Y    |      | \$107,075.00    | \$52,000.00    | \$68,000.00    | 105        | 57       |
| 83-B-0191 | UNITED CON  | Y    |      | \$68,000.00     | \$52,000.00    | \$68,000.00    | 31         | 0        |
| 83-B-0305 | HOPE BUILD  | Y    |      | \$10,804,000.00 | \$7,400,000.00 |                | 33         | ERROR    |
| 83-B-0305 | I & I       | Y    |      | \$615,000.00    | \$614,148.00   | \$669,787.00   | 37         | 25       |
| 83-B-0305 | J & EDWARD  | Y    |      | \$779,000.00    | \$614,148.00   | \$669,787.00   | 27         | 12       |
| 83-B-0305 | LONE STAR   | Y    |      | \$623,800.00    | \$614,148.00   | \$669,787.00   | 34         | 23       |
| 83-B-0305 | M & ALLEN   | Y    |      | \$392,000.00    | \$614,148.00   | \$669,787.00   | 45         | 33       |
| 83-B-0305 | HARDY CONE  | Y    |      | \$316,944.00    | \$614,148.00   | \$669,787.00   | 49         | 37       |
| 83-B-0305 | SAMDAMATO   | Y    |      | \$669,787.00    | \$614,148.00   | \$669,787.00   | 9          | 0        |



| CONTRACT# | OFFEROR     | SS | S D E | EID | CON'T EST      | AWARD PRICE    | % OF GOV'      | % OF AWA |       |
|-----------|-------------|----|-------|-----|----------------|----------------|----------------|----------|-------|
| 83-B-0305 | SNERCO COR  | ?  |       |     | \$392,000.00   | \$614,148.00   | 45             | 33       |       |
| 83-B-0309 | DONATO SPA  | Y  |       |     | \$228,000.00   | \$913,000.00   | -10            | 6        |       |
| 83-B-0309 | MAGNUM INC  | Y  |       |     | \$377,000.00   | \$913,000.00   | -5             | 13       |       |
| 83-B-0309 | MARTELL CO  | Y  |       |     | \$773,000.00   | \$913,000.00   | -15            | 0        |       |
| 83-B-0309 | R G RIFFER  | Y  |       |     | \$276,123.00   | \$913,000.00   | -5             | 12       |       |
| 83-B-0392 | MARTELL CO  | Y  |       |     | \$202,000.00   | \$111,000.00   | 82             | ERROR    |       |
| 83-B-0392 | FRAUGHT CO  | Y  |       |     | \$377,900.00   | \$111,000.00   | \$227,000.00   | 240      | 66    |
| 83-B-0392 | RANCO CONS  | Y  |       |     | \$227,000.00   | \$111,000.00   | \$227,000.00   | 105      | 0     |
| 83-B-0504 | ?????? BR   | ?  |       |     | \$4,527,000.00 | \$6,584,000.00 | \$4,360,000.00 | -31      | 4     |
| 83-B-0504 | ARTCO CONT  | Y  |       |     | \$4,659,601.00 | \$6,584,000.00 | \$4,360,000.00 | -29      | 7     |
| 83-B-0504 | AUDIO CENT  | ?  |       |     | \$24,950.00    | \$6,584,000.00 | \$4,360,000.00 | -100     | -33   |
| 83-B-0504 | GERACE CON  | Y  |       |     | \$4,700,000.00 | \$6,584,000.00 | \$4,360,000.00 | -29      | 8     |
| 83-B-0504 | SPENCE ERD  | Y  |       |     | \$4,527,000.00 | \$6,584,000.00 | \$4,360,000.00 | -31      | 4     |
| 83-B-0504 | THE CRISTH  | N  |       |     | \$4,516,000.00 | \$6,584,000.00 | \$4,360,000.00 | -31      | 4     |
| 83-B-0504 | THE GERACE  | Y  |       |     | \$4,450,000.00 | \$6,584,000.00 | \$4,360,000.00 | -32      | 2     |
| 83-B-0517 | ANDERSON B  | Y  | Y     |     | \$767,000.00   | \$521,385.00   |                | 47       | ERROR |
| 83-B-0517 | CONTRACTIN  | Y  | Y     |     | \$3,100,000.00 | \$521,385.00   |                | 495      | ERROR |
| 83-B-0517 | ESTES CONE  | Y  | Y     |     | \$2,000,000.00 | \$521,385.00   |                | 284      | ERROR |
| 83-B-0517 | H & J PLUM  | Y  | Y     |     | \$721,000.00   | \$521,385.00   |                | 38       | ERROR |
| 83-B-0517 | HENRY R. S  | Y  | Y     |     | \$908,900.00   | \$521,385.00   |                | 74       | ERROR |
| 83-B-0517 | INTERSTATE  | Y  | Y     |     | \$331,700.00   | \$521,385.00   |                | 88       | ERROR |
| 83-B-0520 | E C I CONS  | Y  |       |     | \$3,311,135.00 | \$3,269,500.00 | \$3,200,000.00 | 1        | 3     |
| 83-B-0520 | McINTURE B  | Y  |       |     | \$4,271,800.00 | \$3,269,500.00 | \$3,200,000.00 | 31       | 33    |
| 83-B-0520 | FLOWER L SD | Y  |       |     | \$3,687,000.00 | \$3,269,500.00 | \$3,200,000.00 | 13       | 15    |
| 83-B-0520 | WEDDLE BRO  | Y  |       |     | \$3,200,000.00 | \$3,269,500.00 | \$3,200,000.00 | -2       | 0     |
| 83-B-0545 | BORD BEVEL  | Y  |       |     | \$1,616,000.00 | \$1,458,000.00 | \$1,616,000.00 | 11       | 0     |
| 83-B-0545 | MARTELL CO  | Y  |       |     | \$2,094,000.00 | \$1,458,000.00 | \$1,616,000.00 | 44       | 30    |
| 83-B-0545 | FRANSH IN   | Y  |       |     | \$1,677,754.00 | \$1,458,000.00 | \$1,616,000.00 | 15       | 4     |
| 83-B-0545 | RIPPER INC  | Y  |       |     | \$1,752,129.00 | \$1,458,000.00 | \$1,616,000.00 | 21       | 9     |
| 83-B-0548 | BORD BEVEL  | Y  |       |     | \$8,211,398.00 | \$6,359,000.00 |                | 29       | ERROR |
| 83-B-0609 | ABO ENTERP  | Y  |       |     | \$446,895.00   | \$510,100.00   | \$446,895.00   | -12      | 0     |
| 83-B-0609 | CG FIELD &  | Y  |       |     | \$1,000,000.00 | \$510,100.00   | \$446,895.00   | 96       | 124   |
| 83-B-0609 | DARR EMILD  | Y  |       |     | \$496,869.00   | \$510,100.00   | \$446,895.00   | -3       | 11    |
| 83-B-0609 | LOEFFEL EN  | Y  |       |     | \$1,000,000.00 | \$510,100.00   | \$446,895.00   | 96       | 124   |
| 83-B-0609 | M G ASTLEF  | Y  |       |     | \$5,000,000.00 | \$510,100.00   | \$446,895.00   | 696      | 1037  |
| 83-B-0609 | HAERTENS-E  | Y  |       |     | \$1,500,000.00 | \$510,100.00   | \$446,895.00   | 194      | 236   |
| 83-B-0609 | MORCON CON  | Y  |       |     | \$466,590.00   | \$510,100.00   | \$446,895.00   | -9       | 4     |
| 83-B-0609 | PHILLIPS K  | ?  |       |     | \$1,000,000.00 | \$510,100.00   | \$446,895.00   | 96       | 124   |
| 83-B-0643 | S L & K CO  | Y  |       |     | \$456,600.00   | \$510,100.00   | \$446,895.00   | -10      | 2     |
| 83-B-0643 | MID-CON IN  | Y  |       |     | \$260,000.00   | \$141,895.00   |                | 76       | ERROR |
| 83-B-0643 | R.W. EDGAR  | Y  |       |     | \$300,000.00   | \$141,895.00   |                | 111      | ERROR |
| 83-B-0665 | JAMES MANF  | Y  |       |     | \$1,434,900.00 | \$912,200.00   | \$878,685.00   | 63       | 69    |
| 83-B-0665 | KNICKERBOO  | Y  |       |     | \$1,394,000.00 | \$912,200.00   | \$878,685.00   | 53       | 59    |
| 83-B-0665 | NOVICIC CO  | Y  |       |     | \$927,493.00   | \$912,200.00   | \$878,685.00   | 2        | 6     |
| 83-B-0665 | RD-HAR CON  | -- |       |     | \$878,685.00   | \$912,200.00   | \$878,685.00   | -4       | 0     |
| 83-B-6395 | GRAVES FLU  | Y  |       |     | \$681,681.00   | \$862,823.00   | \$681,681.00   | -21      | 0     |
| 83-B-6395 | HARRELL HE  | Y  |       |     | \$703,964.00   | \$862,823.00   | \$681,681.00   | -18      | 4     |
| 83-B-6395 | GREEN GEN   | Y  |       |     | \$754,000.00   | \$862,823.00   | \$681,681.00   | -12      | 11    |
| 83-B-6395 | TRIANGLE L  | Y  |       |     | \$774,535.00   | \$862,823.00   | \$681,681.00   | -10      | 14    |
| 84- -4346 | SCHAEFFER   | Y  |       |     | \$51,815.00    | \$76,053.00    |                | -32      | ERROR |
| 84- -4346 | THREE-WAY   | Y  |       |     | \$42,852.00    | \$76,053.00    |                | -44      | ERROR |
| 84-B-0013 | AMERICAN C  | Y  |       |     | \$1,833,892.00 | \$1,492,465.00 | \$1,366,000.00 | 27       | 36    |



| CONTRACT# | OFFEROR      | SB | E E E | BID            | GOV T EST      | AWARD PRICE    | % OF GOV | # OF AWA |
|-----------|--------------|----|-------|----------------|----------------|----------------|----------|----------|
| 04-E-0008 | CEI          | Y  |       | \$1,421,000.00 | \$1,482,485.00 | \$1,366,000.00 | -9       | 4        |
| 04-E-0008 | G S E A IN   | ?  |       | \$1,710,951.00 | \$1,482,485.00 | \$1,366,000.00 | 15       | 25       |
| 04-E-0008 | LADDER INC   | Y  |       | \$1,366,000.00 | \$1,482,485.00 | \$1,366,000.00 | -8       | 0        |
| 04-E-0008 | DANLAD CO    | Y  | Y     | \$1,748,000.00 | \$1,482,485.00 | \$1,366,000.00 | 17       | 23       |
| 04-E-0008 | D HENENARH   | Y  |       | \$3,333,000.00 | \$1,509,117.00 |                | 35       | ERROR    |
| 04-E-0009 | G S C ENTE   | Y  |       | \$2,748,000.00 | \$1,509,117.00 |                | 9        | ERROR    |
| 04-E-0009 | GAUNTT CON   | Y  |       | \$2,733,000.00 | \$1,509,117.00 |                | 9        | ERROR    |
| 04-E-0010 | FEITER CON   | -- |       | \$1,117,000.00 | \$502,129.00   | \$1,117,000.00 | 23       | 0        |
| 04-E-0011 | -----        | -- | --    | \$0.00         | \$0.00         | \$0.00         | 0        | 0        |
| 04-E-0014 | GARR & DUF   | Y  |       | \$372,800.00   | \$385,561.00   |                | 43       | ERROR    |
| 04-E-0014 | HEATHA HEA   | Y  |       | \$372,000.00   | \$385,561.00   |                | -4       | ERROR    |
| 04-E-0014 | MARTELL CO   | Y  |       | \$492,800.00   | \$385,561.00   |                | 12       | ERROR    |
| 04-E-0014 | RANEE CONE   | Y  |       | \$112,800.00   | \$385,561.00   |                | -14      | ERROR    |
| 04-E-0014 | SEBARDI E    | Y  |       | \$317,000.00   | \$385,561.00   |                | 0        | ERROR    |
| 04-E-0014 | WESCOFF EL   | Y  |       | \$462,440.00   | \$385,561.00   |                | 21       | ERROR    |
| 04-E-0018 | BLAYELEY     | Y  |       | \$2,533,500.00 | \$2,818,860.00 | \$2,087,000.00 | -6       | 26       |
| 04-E-0018 | WATERFRONT   | Y  |       | \$2,488,500.00 | \$2,818,860.00 | \$2,087,000.00 | -11      | 26       |
| 04-E-0018 | WHA LING DI  | Y  |       | \$2,067,000.00 | \$2,818,860.00 | \$2,087,000.00 | -25      | 0        |
| 04-E-0024 | E & M CONE   | Y  |       | \$584,000.00   | \$567,000.00   |                | 58       | ERROR    |
| 04-E-0031 | DANLAD CO    | Y  |       | \$4,748,000.00 | \$5,000,000.00 | \$4,640,000.00 | -5       | 2        |
| 04-E-0031 | ELLIOTT LE   | Y  |       | \$4,678,000.00 | \$5,000,000.00 | \$4,640,000.00 | -7       | 1        |
| 04-E-0031 | G S C ENTE   | Y  |       | \$5,273,000.00 | \$5,000,000.00 | \$4,640,000.00 | 6        | 14       |
| 04-E-0031 | GIBSON HAR   | Y  |       | \$4,540,000.00 | \$5,000,000.00 | \$4,640,000.00 | -7       | 0        |
| 04-E-0031 | REITER CON   | Y  |       | \$4,771,000.00 | \$5,000,000.00 | \$4,640,000.00 | -5       | 3        |
| 04-E-0037 | ARNOLD R     | Y  |       | \$3,456,000.00 | \$3,143,000.00 |                | 10       | ERROR    |
| 04-E-0037 | KORN BROTH   | Y  |       | \$3,310,000.00 | \$3,143,000.00 |                | 5        | ERROR    |
| 04-E-0037 | REITER CON   | Y  |       | \$3,872,000.00 | \$3,143,000.00 |                | 7        | ERROR    |
| 04-E-0037 | SNEFOO CER   | Y  |       | \$3,323,000.00 | \$3,143,000.00 |                | 6        | ERROR    |
| 04-E-0037 | FIDUOD IND   |    |       | \$1,173,061.26 | \$3,143,000.00 |                | -63      | ERROR    |
| 04-E-0041 | A P. ELEC    | Y  |       | \$189,555.00   | \$172,000.00   | \$184,000.00   | 16       | 8        |
| 04-E-0041 | ANGELES CO   | Y  |       | \$226,000.00   | \$172,000.00   | \$184,000.00   | 63       | 52       |
| 04-E-0041 | BLAIRCON B   | Y  |       | \$246,000.00   | \$172,000.00   | \$184,000.00   | 43       | 34       |
| 04-E-0041 | FDYAS CON    | Y  |       | \$210,000.00   | \$172,000.00   | \$184,000.00   | 22       | 14       |
| 04-E-0041 | GNACELLI E   | Y  |       | \$221,000.00   | \$172,000.00   | \$184,000.00   | 28       | 26       |
| 04-E-0041 | SAMEE CONE   | Y  |       | \$244,000.00   | \$172,000.00   | \$184,000.00   | 42       | 33       |
| 04-E-0041 | UNITED CON   | Y  |       | \$184,000.00   | \$172,000.00   | \$184,000.00   | 7        | 0        |
| 04-E-0041 | DANLAD CO    | Y  | Y     | \$276,000.00   | \$172,000.00   | \$184,000.00   | 60       | 50       |
| 04-E-0043 | REN WAGNER   | Y  |       | \$76,652.00    | \$100,000.00   | \$53,810.00    | -23      | 42       |
| 04-E-0043 | BILL STRON   | Y  |       | \$119,932.00   | \$100,000.00   | \$53,810.00    | 20       | 123      |
| 04-E-0043 | DEL-VAL ME   | Y  |       | \$105,810.00   | \$100,000.00   | \$53,810.00    | 6        | 57       |
| 04-E-0043 | DOLAN KECH   | Y  |       | \$100,200.00   | \$100,000.00   | \$53,810.00    | 0        | 96       |
| 04-E-0043 | FUTURA CO    | Y  |       | \$64,460.00    | \$100,000.00   | \$53,810.00    | -36      | 20       |
| 04-E-0043 | ERADY'S ME   | Y  |       | \$85,023.02    | \$100,000.00   | \$53,810.00    | -15      | 53       |
| 04-E-0043 | HEW AND SC   | Y  |       | \$53,847.86    | \$100,000.00   | \$53,810.00    | -41      | 9        |
| 04-E-0043 | HONER AND    | Y  |       | \$53,810.00    | \$100,000.00   | \$53,810.00    | -45      | 0        |
| 04-E-0043 | J & L PLUM   | Y  |       | \$84,325.03    | \$100,000.00   | \$53,810.00    | -12      | 57       |
| 04-E-0043 | JOHN E ME    | Y  |       | \$60,196.00    | \$100,000.00   | \$53,810.00    | -10      | 36       |
| 04-E-0043 | MELVILLE E   | Y  |       | \$76,128.00    | \$100,000.00   | \$53,810.00    | -24      | 41       |
| 04-E-0043 | MODERN MEC   | Y  |       | \$87,840.00    | \$100,000.00   | \$53,810.00    | -12      | 63       |
| 04-E-0043 | F. J. B. CO. | ?  |       | \$67,200.00    | \$100,000.00   | \$53,810.00    | -3       | 31       |
| 04-E-0043 | SCHAFFER E   | Y  |       | \$77,059.00    | \$100,000.00   | \$53,810.00    | -23      | 43       |
| 04-E-0043 | STRAFFORD    | Y  |       | \$53,530.00    | \$100,000.00   | \$53,810.00    | -10      | 66       |



| CONTRACT# | OFFEROR     | BE | S O B | BID            | GOVT EST       | AWARD PRICE    | DCF GOVT | 1 OF A/A |
|-----------|-------------|----|-------|----------------|----------------|----------------|----------|----------|
| 84-B-0040 | UNION BUIL  | Y  |       | \$67,617.00    | \$100,000.00   | \$69,810.00    | -12      | 69       |
| 84-B-0040 | WM. F. GAV  | Y  |       | \$65,293.00    | \$100,000.00   | \$69,810.00    | -45      | 3        |
| 84-B-0040 | DEL VAL ME  | Y  |       | \$4,266,500.00 | \$2,781,000.00 |                | 55       | ERROR    |
| 84-B-0040 | HEARTH HTG  | Y  |       | \$3,720,000.00 | \$2,781,000.00 |                | 35       | ERROR    |
| 84-B-0040 | KOE VAN IN  | Y  |       | \$4,100,000.00 | \$2,781,000.00 |                | 47       | ERROR    |
| 84-B-0040 | ADVANCE ME  | Y  |       | \$178,000.00   | \$503,000.00   | \$129,924.00   | -65      | 07       |
| 84-B-0040 | CAPITAL ME  | Y  |       | \$905,000.00   | \$503,000.00   | \$129,924.00   | 0        | 269      |
| 84-B-0040 | DBLAN MECH  | Y  |       | \$184,200.00   | \$503,000.00   | \$129,924.00   | -63      | 42       |
| 84-B-0040 | HUTCHINSON  | Y  |       | \$212,589.00   | \$503,000.00   | \$129,924.00   | -58      | 64       |
| 84-B-0040 | J J EEE ME  | Y  |       | \$548,882.00   | \$503,000.00   | \$129,924.00   | -32      | 165      |
| 84-B-0040 | SCHAEFFER   | Y  |       | \$129,924.00   | \$503,000.00   | \$129,924.00   | -74      | 0        |
| 84-B-0040 | WILLIAM F   | Y  |       | \$388,171.00   | \$503,000.00   | \$129,924.00   | -23      | 199      |
| 84-B-0040 | ADVANCED M  | Y  |       | \$672,000.00   | \$1,122,000.00 | \$548,100.00   | -22      | 59       |
| 84-B-0040 | ADVANCED M  | Y  |       | \$672,000.00   | \$1,122,000.00 | \$548,100.00   | -22      | 59       |
| 84-B-0040 | COTTAN ME   | ?  |       | \$584,100.00   | \$1,122,000.00 | \$548,100.00   | -48      | 7        |
| 84-B-0040 | COTTAN ME   | N  |       | \$548,100.00   | \$1,122,000.00 | \$548,100.00   | -51      | 0        |
| 84-B-0040 | JAMES F CA  | Y  |       | \$738,000.00   | \$1,122,000.00 | \$548,100.00   | -34      | 35       |
| 84-B-0040 | JAMES F. G  | Y  |       | \$735,000.00   | \$1,122,000.00 | \$548,100.00   | -34      | 35       |
| 84-B-0040 | MICHAEL C.  | Y  |       | \$697,400.00   | \$1,122,000.00 | \$548,100.00   | -38      | 27       |
| 84-B-0040 | PAUL J BRD  | ?  |       | \$0.00         | \$1,122,000.00 | \$548,100.00   | -100     | -100     |
| 84-B-0040 | REITER CON  | Y  |       | \$647,000.00   | \$1,122,000.00 | \$548,100.00   | -42      | 15       |
| 84-B-0040 | REITER CON  | Y  |       | \$647,000.00   | \$1,122,000.00 | \$548,100.00   | -42      | 15       |
| 84-B-0040 | W F GAVIN   | Y  |       | \$647,884.00   | \$1,122,000.00 | \$548,100.00   | -16      | 73       |
| 84-B-0040 | MICHAEL C   | Y  |       | \$697,400.00   | \$1,122,000.00 | \$548,100.00   | -38      | 27       |
| 84-B-0040 | W F. GAVIN  | Y  |       | \$647,884.00   | \$1,122,000.00 | \$548,100.00   | -16      | 73       |
| 84-B-0050 | DEL-VAL ME  | Y  |       | \$1,746,205.00 | \$1,259,000.00 |                | 39       | ERROR    |
| 84-B-0050 | BANLADI CD  | Y  | Y     | \$2,473,000.00 | \$1,259,000.00 |                | 96       | ERROR    |
| 84-B-0050 | EDSS-APROD  | Y  | Y     | \$1,779,000.00 | \$1,259,000.00 |                | 41       | ERROR    |
| 84-B-0100 | REITER CON  | Y  |       | \$598,000.00   | \$598,000.00   | \$597,000.00   | -16      | 6        |
| 84-B-0100 | SCHAEFFER E | Y  |       | \$518,200.00   | \$598,000.00   | \$597,000.00   | -3       | 22       |
| 84-B-0100 | WILLIAM F   | Y  |       | \$508,487.00   | \$598,000.00   | \$597,000.00   | -5       | 20       |
| 84-B-0100 | FRAUCHT CD  | Y  |       | \$598,800.00   | \$598,000.00   | \$597,000.00   | 36       | 71       |
| 84-B-0100 | ADVANCED M  | Y  |       | \$564,000.00   | \$598,000.00   |                | 48       | ERROR    |
| 84-B-0100 | COTTAN ME   | N  |       | \$774,100.00   | \$598,000.00   |                | 32       | ERROR    |
| 84-B-0100 | DBLAN MECH  | Y  |       | \$597,000.00   | \$598,000.00   |                | 2        | ERROR    |
| 84-B-0100 | HUTCHINSON  | N  |       | \$544,889.00   | \$598,000.00   |                | 44       | ERROR    |
| 84-B-0100 | SHANER & I  | Y  |       | \$619,000.00   | \$598,000.00   |                | 40       | ERROR    |
| 84-B-0120 | ARMGLO M.   | Y  |       | \$2,247,910.00 | \$1,259,000.00 | \$1,484,400.00 | 79       | 51       |
| 84-B-0120 | DEL-VAL ME  | Y  |       | \$1,598,680.00 | \$1,259,000.00 | \$1,484,400.00 | 51       | 28       |
| 84-B-0120 | ELLIOTT-LE  | Y  |       | \$2,253,000.00 | \$1,259,000.00 | \$1,484,400.00 | 79       | 52       |
| 84-B-0120 | MORRIS IRE  | Y  |       | \$1,589,065.00 | \$1,259,000.00 | \$1,484,400.00 | 33       | 12       |
| 84-B-0120 | REITER CON  | Y  |       | \$1,727,000.00 | \$1,259,000.00 | \$1,484,400.00 | 37       | 16       |
| 84-B-0120 | SUEPCO COP  | Y  |       | \$1,595,000.00 | \$1,259,000.00 | \$1,484,400.00 | 27       | 7        |
| 84-B-0120 | UNITED BRE  | Y  |       | \$1,464,400.00 | \$1,259,000.00 | \$1,484,400.00 | 18       | 0        |
| 84-B-0120 | DEL VAL ME  | Y  |       | \$619,555.00   | \$544,600.00   | \$589,884.00   | 27       | 89       |
| 84-B-0120 | DBLAN MECH  | Y  |       | \$624,000.00   | \$544,600.00   | \$589,884.00   | -3       | 6        |
| 84-B-0120 | G & C ENTE  | Y  |       | \$685,000.00   | \$544,600.00   | \$589,884.00   | 2        | 11       |
| 84-B-0120 | HUTCHINSON  | Y  |       | \$684,899.00   | \$544,600.00   | \$589,884.00   | 6        | 16       |
| 84-B-0120 | MIRY ERDTH  | Y  |       | \$687,700.00   | \$544,600.00   | \$589,884.00   | 6        | 16       |
| 84-B-0120 | NORTH AKER  | Y  |       | \$689,200.00   | \$544,600.00   | \$589,884.00   | 33       | 46       |
| 84-B-0120 | SCHAEFFER E | Y  |       | \$589,884.00   | \$544,600.00   | \$589,884.00   | -5       | 0        |
| 84-B-0130 | CONATO EPA  | ?  |       | \$373,560.00   | \$168,349.00   |                | 100      | ERROR    |





| CONTRACT# | OFFEROR     | FB | BID             | BID            | BOMT           | BST            | AWARD PRICE  | % BOMT | % OF A/A |
|-----------|-------------|----|-----------------|----------------|----------------|----------------|--------------|--------|----------|
| 84-B-0184 | CAMDELLI E  | Y  |                 | \$279,500.00   |                | \$188,549.00   |              | 46     | ERROR    |
| 84-B-0184 | NASHUM IND  | Y  |                 | \$347,790.00   |                | \$188,549.00   |              | 54     | ERROR    |
| 84-B-0184 | MARTELL CO  | Y  |                 | \$319,000.00   |                | \$188,549.00   |              | 57     | ERROR    |
| 84-B-0184 | FAN ELLIDI  | N  |                 | \$289,000.00   |                | \$188,549.00   |              | 35     | ERROR    |
| 84-B-0184 | BANBE CON   | Y  |                 | \$354,000.00   |                | \$188,549.00   |              | 67     | ERROR    |
| 84-B-0184 | SCHAEFFER   | Y  |                 | \$347,334.00   |                | \$188,549.00   |              | 54     | ERROR    |
| 84-B-0184 | UNITED IND  | Y  |                 | \$299,000.00   |                | \$188,549.00   |              | 53     | ERROR    |
| 84-B-0184 | MILLRAY F   | N  |                 | \$207,879.00   |                | \$188,549.00   |              | 52     | ERROR    |
| 84-B-0149 | MASHUM, INC | Y  |                 | \$401,292.00   |                | \$488,972.00   | \$488,972.00 | 11     | 0        |
| 84-B-0149 | MARTELL CO  | Y  |                 | \$787,500.00   |                | \$488,972.00   | \$488,972.00 | 61     | 68       |
| 84-B-0149 | COASTAL LA  | Y  |                 | \$389,284.00   |                | \$315,986.00   | \$353,000.00 | 23     | 10       |
| 84-B-0149 | DOLAN TECH  | N  |                 | \$379,059.00   |                | \$315,986.00   | \$353,000.00 | 20     | 7        |
| 84-B-0149 | GAUATT CON  | Y  |                 | \$359,000.00   |                | \$315,986.00   | \$353,000.00 | 12     | 0        |
| 84-B-0149 | NASHUM IND  | Y  |                 | \$331,269.00   |                | \$315,986.00   | \$353,000.00 | 26     | 13       |
| 84-B-0149 | FIDLEER CO  | Y  |                 | \$339,122.00   |                | \$315,986.00   | \$353,000.00 | 6      | -3       |
| 84-B-0149 | SAM LUCAS   | Y  |                 | \$479,379.00   |                | \$315,986.00   | \$353,000.00 | 51     | 35       |
| 84-B-0291 | BORG DEVEL  | Y  | \$3,249,000.00  |                | \$3,500,000.00 | \$3,180,000.00 |              | -8     | 2        |
| 84-B-0291 | D WENENASH  | Y  | \$1,459,000.00  |                | \$3,500,000.00 | \$3,180,000.00 |              | -2     | 9        |
| 84-B-0291 | E F OVIDI   | Y  | \$3,519,000.00  |                | \$3,500,000.00 | \$3,180,000.00 |              | -0     | 11       |
| 84-B-0291 | E J C ERTE  | Y  | \$3,130,000.00  |                | \$3,500,000.00 | \$3,180,000.00 |              | -10    | 0        |
| 84-B-0291 | GAUATT CON  | Y  | \$3,189,500.00  |                | \$3,500,000.00 | \$3,180,000.00 |              | -9     | 0        |
| 84-B-0291 | J ROBE COR  | Y  | \$3,488,000.00  |                | \$3,500,000.00 | \$3,180,000.00 |              | -1     | 9        |
| 84-B-0291 | MARTELL CO  | Y  | \$3,892,300.00  |                | \$3,500,000.00 | \$3,180,000.00 |              | 10     | 21       |
| 84-B-0291 | ROBERT E R  | Y  | \$3,829,129.00  |                | \$3,500,000.00 |                |              | -6     | ERROR    |
| 84-B-0292 | ERNEST S    | Y  | \$3,361,000.00  |                | \$2,879,000.00 | \$3,042,000.00 |              | 25     | 10       |
| 84-B-0292 | ROEDIGER C  | Y  | \$3,140,400.00  |                | \$2,879,000.00 | \$3,042,000.00 |              | 17     | 3        |
| 84-B-0292 | WILSON BEN  | N  | \$3,042,000.00  |                | \$2,879,000.00 | \$3,042,000.00 |              | 14     | 0        |
| 84-B-0299 | BAYFIELD C  | Y  | \$4,438,840.00  |                | \$3,800,000.00 | \$4,438,840.00 |              | 29     | 0        |
| 84-B-0299 | B BLONDIA   | Y  | \$4,447,000.00  |                | \$3,800,000.00 | \$4,438,840.00 |              | 24     | 0        |
| 84-B-0299 | LE DAWNING  | Y  | \$5,177,469.00  |                | \$3,800,000.00 | \$4,438,840.00 |              | 47     | 19       |
| 84-B-0299 | CLARK FITZ  | N  | \$3,469,879.00  |                | \$3,800,000.00 |                |              | 43     | ERROR    |
| 84-B-0299 | MERRENTONE  | N  | \$42,439,888.00 |                | \$3,800,000.00 |                |              | 40     | ERROR    |
| 84-B-0299 | REFINT COR  | N  | \$37,843,099.00 |                | \$3,800,000.00 |                |              | 90     | ERROR    |
| 84-B-0299 | YONKERS CO  | N  | \$45,180,000.00 |                | \$3,800,000.00 |                |              | 45     | ERROR    |
| 84-B-0292 | FEED L FEE  | N  | \$2,959,000.00  |                | \$2,671,160.00 |                |              | 11     | ERROR    |
| 84-B-0292 | SHASTAN CO  | Y  | \$2,440,000.00  |                | \$2,671,160.00 |                |              | -9     | ERROR    |
| 84-B-0290 | M G ALLEN   | Y  | \$1,940,000.00  |                | \$1,094,000.00 |                |              | 41     | ERROR    |
| 84-B-0290 | MOLONY & F  | Y  | \$1,684,000.00  |                | \$1,094,000.00 |                |              | 51     | ERROR    |
| 84-B-0290 | PAGE CONET  | Y  | \$1,687,000.00  |                | \$1,094,000.00 |                |              | 54     | ERROR    |
| 84-B-0292 | KID MAINE   | Y  | \$389,000.00    |                | \$404,959.00   |                |              | -5     | ERROR    |
| 84-B-0292 | STRUM CRAF  | N  |                 | \$479,847.00   | \$404,959.00   |                |              | 17     | ERROR    |
| 84-B-0299 |             | Y  |                 | \$2,150,291.00 | \$2,156,000.00 | \$2,150,291.00 |              | -1     | 0        |
| 84-B-0299 | COLWELL CO  | N  |                 | \$298,399.00   | \$2,156,000.00 | \$2,150,291.00 |              | -95    | -69      |
| 84-B-0299 | CONSOLIDAT  | Y  |                 | \$2,353,361.00 | \$2,156,000.00 | \$2,150,291.00 |              | 9      | 9        |
| 84-B-0299 | H E MAC I   | Y  |                 | \$2,489,000.00 | \$2,156,000.00 | \$2,150,291.00 |              | 15     | 16       |
| 84-B-0299 | H J EDOBE   | Y  |                 | \$2,569,878.00 | \$2,156,000.00 | \$2,150,291.00 |              | 17     | 19       |
| 84-B-0300 | NATIONWIDE  | Y  |                 | \$389,821.00   | \$706,000.00   | \$899,821.00   |              | 27     | 0        |
| 84-B-0389 | ATLANTIC E  | N  |                 | \$111,340.00   | \$190,000.00   |                |              | 64     | ERROR    |
| 84-B-0389 | E L SHEA    | N  |                 | \$179,762.00   | \$190,000.00   |                |              | 45     | ERROR    |
| 84-B-0384 | C PYRAMID   | Y  |                 | \$1,439,050.00 | \$306,377.00   |                |              | 53     | ERROR    |
| 84-B-0384 | MARTELL CO  | Y  |                 | \$1,318,100.00 | \$306,377.00   |                |              | 45     | ERROR    |
| 84-B-0384 | DANLADI CO  | Y  |                 | \$1,406,000.00 | \$306,377.00   |                |              | 55     | ERROR    |



| CONTRACT# | OFFEROR      | SB | S D B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV'T | % OF AWA |
|-----------|--------------|----|-------|----------------|----------------|----------------|------------|----------|
| 84-B-0355 | D.L. FOULI   | Y  |       | \$1,331,344.00 | \$307,000.00   | \$1,167,000.00 | 65         | 14       |
| 84-B-0357 | HARRY G. C   | Y  |       | \$3,563,332.00 | \$3,549,000.00 |                | 12         | ERROR    |
| 84-B-0359 | ABIELE CON   | Y  |       | \$1,337,300.00 | \$325,700.00   | \$767,000.00   | 63         | 82       |
| 84-B-0359 | CHAFFY CDR   | Y  |       | \$330,680.00   | \$325,700.00   | \$767,000.00   | 20         | 29       |
| 84-B-0359 | COKEY COMF   | Y  |       | \$332,547.00   | \$325,700.00   | \$767,000.00   | 5          | 13       |
| 84-B-0359 | E W AUDET    | Y  |       | \$777,729.00   | \$325,700.00   | \$767,000.00   | -6         | 1        |
| 84-B-0359 | JAMES J O'   | Y  |       | \$1,004,800.00 | \$325,700.00   | \$767,000.00   | 22         | 31       |
| 84-B-0359 | FOTHAN ELE   | Y  |       | \$332,000.00   | \$325,700.00   | \$767,000.00   | 4          | 12       |
| 84-B-0359 | THE RYAN C   | Y  |       | \$767,000.00   | \$325,700.00   | \$767,000.00   | -7         | 0        |
| 84-B-0359 | WILLIAMS E   | Y  |       | \$331,817.00   | \$325,700.00   | \$767,000.00   | 4          | 12       |
| 84-B-0360 | MAGNUM INC   | Y  |       | \$423,508.00   | \$227,000.00   |                | 89         | ERROR    |
| 84-B-0432 | DESANTO CO   | ?  |       | \$143,000.00   | \$33,330.00    | \$143,000.00   | 49         | 0        |
| 84-B-0432 | KEK CONSTR   | Y  |       | \$137,320.00   | \$33,330.00    | \$143,000.00   | 62         | 13       |
| 84-B-0432 | TEXAS ELEV   | Y  |       | \$242,000.00   | \$33,330.00    | \$143,000.00   | 150        | 68       |
| 84-B-0432 | UNICORN DE   | ?  |       | \$138,530.00   | \$33,330.00    | \$143,000.00   | 70         | 14       |
| 84-B-0432 | VALCO INC    | Y  |       | \$143,000.00   | \$33,330.00    | \$143,000.00   | 50         | 0        |
| 84-B-0432 | NO BIDS RE   | -  | -     | ERROR          | ERROR          | \$143,000.00   | ERROR      | ERROR    |
| 84-B-0476 | DAVIEVILLE   | Y  |       | \$704,550.00   | \$332,000.00   |                | 3          | ERROR    |
| 84-B-0502 | SUPERIOR CDR | Y  |       | \$2,741,774.00 | \$2,303,000.00 | \$2,741,744.00 | -2         | 0        |
| 84-B-0502 | W. LALON C   | Y  |       | \$3,530,000.00 | \$2,303,000.00 | \$2,741,744.00 | 23         | 31       |
| 84-B-0503 | A P O'HARD   | Y  |       | \$3,465,000.00 | \$3,035,000.00 | \$3,465,000.00 | 14         | 0        |
| 84-B-0503 | JACK STEED   | Y  |       | \$3,547,000.00 | \$3,035,000.00 | \$3,465,000.00 | 30         | 14       |
| 84-B-0503 | MAYERSON C   | Y  |       | \$4,217,555.00 | \$3,035,000.00 | \$3,465,000.00 | 23         | 22       |
| 84-B-0503 | NIVE COATE   | Y  |       | \$3,555,680.00 | \$3,035,000.00 | \$3,465,000.00 | 30         | 14       |
| 84-B-0503 | THE CONTI    | Y  |       | \$3,000,000.00 | \$3,035,000.00 | \$3,465,000.00 | 65         | 44       |
| 84-B-0514 | GAFFNEY CO   | Y  |       | \$1,076,000.00 | \$200,000.00   |                | 60         | ERROR    |
| 84-B-0514 | H W ALLEN    | Y  |       | \$333,000.00   | \$300,000.00   |                | 24         | ERROR    |
| 84-B-0514 | MIDDLESEX    | Y  |       | \$100,450.00   | \$300,000.00   |                | -87        | ERROR    |
| 84-B-0514 | FFAUGHT CO   | Y  |       | \$330,000.00   | \$300,000.00   |                | 23         | ERROR    |
| 84-B-0514 | TLT CONST    | Y  |       | \$1,333,000.00 | \$300,000.00   |                | 112        | ERROR    |
| 84-B-0516 | B STROMBER   | Y  |       | \$3,113,917.00 | \$2,311,000.00 | \$3,110,917.00 | 7          | 0        |
| 84-B-0516 | CERTIFIED    | Y  |       | \$2,325,000.00 | \$2,311,000.00 | \$3,110,917.00 | -3         | -9       |
| 84-B-0518 | G ELIUDZIU   | ?  |       | \$3,331,900.00 | \$2,311,000.00 | \$3,110,917.00 | 17         | 3        |
| 84-B-0518 | L E ZANNI    | ?  |       | \$3,763,735.00 | \$2,311,000.00 | \$3,110,917.00 | 30         | 21       |
| 84-B-0518 | W A RANDOL   | ?  |       | \$3,333,014.00 | \$2,311,000.00 | \$3,110,917.00 | 15         | 2        |
| 84-B-0533 | BOBO DEVEL   | N  |       | \$7,130,000.00 | \$7,200,000.00 | \$7,130,000.00 | -0         | 0        |
| 84-B-0533 | G & C ENTE   | Y  |       | \$7,557,000.00 | \$7,200,000.00 | \$7,130,000.00 | 5          | 5        |
| 84-B-0533 | I J WHITE    | N  |       | \$8,330,000.00 | \$7,200,000.00 | \$7,130,000.00 | 23         | 23       |
| 84-B-0533 | THE CARLOS   | N  |       | \$8,473,780.00 | \$7,200,000.00 | \$7,130,000.00 | 18         | 18       |
| 84-B-0533 | DANLADI CO   | Y  | Y     | \$9,343,000.00 | \$7,200,000.00 | \$7,130,000.00 | 30         | 30       |
| 84-B-0601 | ENGEL CONS   | ?  |       | \$320,000.00   | \$331,000.00   |                | 54         | ERROR    |
| 84-B-0601 | GIFCO INC    | Y  |       | \$733,480.00   | \$331,000.00   |                | 43         | ERROR    |
| 84-B-0601 | PRAUGHT CO   | Y  |       | \$1,143,000.00 | \$331,000.00   |                | 116        | ERROR    |
| 84-B-0601 | WAITE MOOR   | Y  |       | \$373,000.00   | \$331,000.00   |                | 84         | ERROR    |
| 84-B-0604 | ATLANTIC B   | Y  |       | \$197,300.00   | \$0.00         | \$197,300.00   | ERROR      | 0        |
| 84-B-0604 | CROSS BAY    | ?  |       | \$493,000.00   | \$0.00         | \$197,300.00   | ERROR      | 151      |
| 84-B-0604 | GATEWAY DE   | Y  |       | \$274,463.00   | \$0.00         | \$197,300.00   | ERROR      | 33       |
| 84-B-0604 | GEO W ROGE   | Y  |       | \$226,760.00   | \$0.00         | \$197,300.00   | ERROR      | 15       |
| 84-B-0604 | JUST-TRAN    | N  |       | \$477,000.00   | \$0.00         | \$197,300.00   | ERROR      | 142      |
| 84-B-0604 | DREN CONTR   | N  |       | \$330,000.00   | \$0.00         | \$197,300.00   | ERROR      | 32       |
| 84-B-0604 | WATERFRONT   | ?  |       | \$333,364.00   | \$0.00         | \$197,300.00   | ERROR      | 35       |
| 84-B-0608 | B S. McCAR   | Y  |       | \$423,000.00   | \$335,000.00   | \$409,306.00   | 6          | 4        |



| CONTRACT# | OFFEROR     | SE | S.D.B. | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV'T | % OF A/A |
|-----------|-------------|----|--------|----------------|----------------|----------------|------------|----------|
| 84-B-0608 | CALMERO CO  | Y  |        | \$409,808.00   | \$395,000.00   | \$409,808.00   | 4          | 0        |
| 84-B-0608 | FONTAS CON  | Y  |        | \$465,020.00   | \$395,000.00   | \$409,808.00   | 18         | 14       |
| 84-B-0608 | GEORGE NOL  | Y  |        | \$477,700.00   | \$395,000.00   | \$409,808.00   | 21         | 17       |
| 84-B-0608 | RICHARD N   | Y  |        | \$528,000.00   | \$395,000.00   | \$409,808.00   | 34         | 29       |
| 84-B-0608 | TIGER CONE  | Y  |        | \$515,500.00   | \$395,000.00   | \$409,808.00   | 31         | 26       |
| 84-B-0610 | R J BELMON  | Y  |        | \$2,178,415.00 | \$1,890,000.00 | \$2,178,415.00 | 15         | 0        |
| 84-B-0610 | REYNOLD BR  | Y  |        | \$2,365,374.00 | \$1,890,000.00 | \$2,178,415.00 | 52         | 32       |
| 84-B-0620 | BILT-RITE   | Y  |        | \$1,887,302.00 | \$1,080,000.00 | \$1,259,750.00 | 75         | 45       |
| 84-B-0620 | EGRO DEVEL  | Y  |        | \$1,299,750.00 | \$1,080,000.00 | \$1,299,750.00 | 20         | 0        |
| 84-B-0620 | D KEMENASH  | Y  |        | \$1,588,000.00 | \$1,080,000.00 | \$1,259,750.00 | 56         | 30       |
| 84-B-0620 | GAMMATT CON | Y  |        | \$1,485,000.00 | \$1,080,000.00 | \$1,259,750.00 | 36         | 13       |
| 84-B-0620 | MAGNUM INC  | Y  |        | \$1,412,825.00 | \$1,080,000.00 | \$1,299,750.00 | 31         | 8        |
| 84-B-0620 | MARTELL CO  | Y  |        | \$1,517,200.00 | \$1,080,000.00 | \$1,299,750.00 | 40         | 17       |
| 84-B-0620 | STD BR EQU  | Y  |        | \$1.00         | \$1,080,000.00 | \$1,259,750.00 | -100       | -100     |
| 84-B-0620 | DANLADI CO  | Y  |        | \$1,239,700.00 | \$1,080,000.00 | \$1,299,750.00 | 52         | 26       |
| 84-B-0620 | BAYSTATE C  | Y  |        | \$355,000.00   | \$570,244.00   | \$758,900.00   | 57         | 18       |
| 84-B-0620 | GAFFNEY CO  | Y  |        | \$356,000.00   | \$570,244.00   | \$758,900.00   | 63         | 27       |
| 84-B-0620 | K THOMPSON  | Y  |        | \$557,898.00   | \$570,244.00   | \$7,758,900.00 | 50         | -83      |
| 84-B-0620 | M T FICH C  | Y  |        | \$758,900.00   | \$570,244.00   | \$758,900.00   | 38         | 4        |
| 84-B-0624 | FOUR D ELE  | Y  |        | ERROR          | \$182,000.00   | \$266,231.00   | ERROR      | ERROR    |
| 84-B-0624 | F & B, INC  | Y  |        | \$266,231.00   | \$182,000.00   | \$266,231.00   | 30         | 0        |
| 84-B-0659 | JAMES H MA  | Y  |        | \$188,500.00   | \$112,000.00   |                | 69         | ERROR    |
| 84-B-0675 | HAMMITT CO  | Y  |        | \$367,000.00   | \$245,300.00   | \$367,000.00   | 49         | 0        |
| 84-B-0675 | INTERIOR E  | Y  |        | \$783,371.00   | \$245,300.00   | \$367,000.00   | 220        | 115      |
| 84-B-0684 | JOHN DUBUI  | Y  |        | \$45,300.00    | \$24,000.00    | \$45,300.00    | 53         | 0        |
| 84-B-0684 | THOMPSON C  | Y  |        | \$55,200.00    | \$24,000.00    | \$45,300.00    | 176        | 43       |
| 84-B-0684 | THU CONTRA  | Y  |        | \$51,650.00    | \$24,000.00    | \$45,300.00    | 119        | 14       |
| 84-B-0727 | HUFF ENTER  | Y  |        | \$455,000.00   | \$605,600.00   | \$340,750.00   | -23        | 34       |
| 84-B-0727 | J KOMOLARI  | Y  |        | \$1,021,112.00 | \$605,600.00   | \$340,750.00   | 75         | 212      |
| 84-B-0727 | JENKINS CO  | Y  |        | \$720,600.00   | \$605,600.00   | \$340,750.00   | 25         | 129      |
| 84-B-0727 | MARANGOS C  | Y  |        | \$558,000.00   | \$605,600.00   | \$340,750.00   | -1         | 75       |
| 84-B-0727 | NASSAU ROD  | Y  |        | \$440,000.00   | \$605,600.00   | \$340,750.00   | -27        | 29       |
| 84-B-0727 | NATIONAL R  | Y  |        | \$422,755.00   | \$605,600.00   | \$340,750.00   | -29        | 27       |
| 84-B-0727 | QUALITY RC  | Y  |        | \$695,711.00   | \$605,600.00   | \$340,750.00   | 15         | 104      |
| 84-B-0727 | TRID CONST  | Y  |        | \$580,000.00   | \$605,600.00   | \$340,750.00   | -4         | 70       |
| 84-B-0727 | VIENNA GC   | Y  |        | \$340,750.00   | \$605,600.00   | \$340,750.00   | -44        | 0        |
| 84-B-0731 | E S McCARE  | Y  |        | \$552,750.00   | \$385,000.00   | \$567,000.00   | 54         | 5        |
| 84-B-0731 | NEWRIC CO   | Y  |        | \$620,500.00   | \$385,000.00   | \$567,000.00   | 61         | 9        |
| 84-B-0731 | RICHARD M.  | Y  |        | \$567,000.00   | \$385,000.00   | \$567,000.00   | 47         | 0        |
| 84-B-0733 | LINCOLN CO  | Y  |        | \$336,463.00   | \$342,056.00   | \$336,463.00   | -2         | 0        |
| 84-B-4731 | MAGNUM INC  | Y  |        | \$432,365.00   | \$373,218.84   |                | 30         | ERROR    |
| 84-B-4731 | RIFPER INC  | Y  |        | \$479,721.00   | \$373,218.84   |                | 27         | ERROR    |
| 84-B-4731 | SALVATORE   | Y  |        | \$628,543.00   | \$373,218.84   |                | 66         | ERROR    |
| 84-B-5887 | ATHAN CONT  | Y  |        | \$417,000.00   | \$437,242.00   |                | -5         | ERROR    |
| 84-B-5887 | BRUNG CO I  | Y  |        | \$458,374.00   | \$437,242.00   |                | 29         | ERROR    |
| 84-B-5887 | HAMPTON BE  | Y  |        | \$465,700.00   | \$437,242.00   |                | 7          | ERROR    |
| 84-B-5887 | JOHN D DON  | Y  |        | \$349,374.00   | \$437,242.00   |                | -30        | ERROR    |
| 84-B-5887 | PIONEER CO  | Y  |        | \$364,000.00   | \$437,242.00   |                | -12        | ERROR    |
| 84-B-5887 | REE CONST   | Y  |        | \$388,526.00   | \$437,242.00   |                | -12        | ERROR    |
| 84-B-5887 | THE WILTON  | Y  |        | \$336,000.00   | \$437,242.00   |                | -23        | ERROR    |
| 84-B-5887 | L S WHITE   | Y  |        | \$575,757.00   | \$437,242.00   |                | 32         | ERROR    |
| 84-B-5887 | DANLADI CO  | Y  | Y      | \$428,000.00   | \$437,242.00   |                | -3         | ERROR    |



| CONTRACT# | OFFEROR     | SS  | S D B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV'T | % OF AWA |
|-----------|-------------|-----|-------|----------------|----------------|----------------|------------|----------|
| 84-B-6658 | AUTOMATED   | N   |       | \$89,591.00    | \$44,000.00    |                | 104        | ERROR    |
| 84-B-6658 | AUTOMATED   | N   |       | \$89,591.00    | \$44,000.00    |                | 104        | ERROR    |
| 84-B-6658 | CENTURY AU  | Y   |       | \$87,500.00    | \$44,000.00    |                | 99         | ERROR    |
| 84-B-6658 | GLOBAL FIR  | N   |       | \$76,426.00    | \$44,000.00    |                | 74         | ERROR    |
| 84-B-6658 | H.V. ALLEN  | Y   |       | \$54,400.00    | \$44,000.00    |                | 115        | ERROR    |
| 84-R-0517 | ALEX KUNZ   | ? Y |       | \$2,363,000.00 | \$1,720,000.00 | \$1,888,600.00 | 37         | 26       |
| 84-R-0517 | C F MOORE   | ? Y |       | \$2,214,423.00 | \$1,720,000.00 | \$1,888,600.00 | 29         | 17       |
| 84-R-0517 | CONYCTON    | ? Y |       | \$2,820,118.00 | \$1,720,000.00 | \$1,888,600.00 | 64         | 49       |
| 84-R-0517 | FRANCO      | ? Y |       | \$1,888,600.00 | \$1,720,000.00 | \$1,888,600.00 | 10         | 0        |
| 84-R-0517 | VER INC     | ? Y |       | \$2,078,804.00 | \$1,720,000.00 | \$1,888,600.00 | 21         | 10       |
| 85-B-0003 | A.P. ELECT  | Y   |       | \$266,800.00   | \$269,753.00   | \$266,800.00   | -5         | -4       |
| 85-B-0003 | B&W CONST   | Y   |       | \$266,800.00   | \$269,753.00   | \$266,800.00   | -1         | 0        |
| 85-B-0003 | H T.M. ASS  | Y   |       | \$333,790.00   | \$269,753.00   | \$266,800.00   | 42         | 44       |
| 85-B-0003 | RINEFER CO  | Y   |       | \$266,714.00   | \$269,753.00   | \$266,800.00   | 6          | 7        |
| 85-B-0003 | SOCOFEE C   | Y   |       | \$323,188.00   | \$269,753.00   | \$266,800.00   | 22         | 23       |
| 85-B-0003 | STAFM CRAF  | Y   |       | \$266,269.00   | \$269,753.00   | \$266,800.00   | 6          | 7        |
| 85-B-0003 | T-ERMO CON  | Y   |       | \$304,111.00   | \$269,753.00   | \$266,800.00   | 13         | 14       |
| 85-B-0007 | GAFFNEY CO  | Y   |       | \$119,000.00   | \$90,000.00    | \$119,000.00   | 32         | 0        |
| 85-B-0007 | J M LISTER  | Y   |       | \$128,740.00   | \$90,000.00    | \$119,000.00   | 42         | 8        |
| 85-B-0012 | CARLIN CON  | ? Y |       | \$130,400.00   | \$1,116,400.00 |                | -96        | ERROR    |
| 85-B-0012 | J S MASIN   | Y   |       | \$121,000.00   | \$1,116,400.00 |                | -96        | ERROR    |
| 85-B-0013 | BILL STRON  | Y   |       | \$2,848,416.00 | \$1,400,000.00 |                | 103        | ERROR    |
| 85-B-0013 | J O A CONS  | Y   |       | \$2,241,000.00 | \$1,400,000.00 |                | 60         | ERROR    |
| 85-B-0014 | C R KLEWIN  | ? Y |       | \$5,654,389.00 | \$5,116,320.00 | \$4,924,000.00 | 11         | 16       |
| 85-B-0014 | CALAMONT    | Y   |       | \$6,670,000.00 | \$5,116,320.00 | \$4,924,000.00 | 30         | 35       |
| 85-B-0014 | CARLIN CON  | ? Y |       | \$4,924,000.00 | \$5,116,320.00 | \$4,924,000.00 | -4         | 0        |
| 85-B-0014 | J L MARSHA  | ? Y |       | \$6,088,000.00 | \$5,116,320.00 | \$4,924,000.00 | 19         | 24       |
| 85-B-0014 | J S MASIN   | Y   |       | \$5,388,000.00 | \$5,116,320.00 | \$4,924,000.00 | 5          | 9        |
| 85-B-0014 | PEARBODY CO | ? Y |       | \$6,482,000.00 | \$5,116,320.00 | \$4,924,000.00 | 26         | 31       |
| 85-B-0015 | GAFFNEY CO  | Y   |       | \$2,159,350.00 | \$889,360.00   | \$1,088,000.00 | 147        | 100      |
| 85-B-0015 | J.C.N CONS  | Y   |       | \$1,468,000.00 | \$889,360.00   | \$1,088,000.00 | 65         | 35       |
| 85-B-0015 | MARTIN J.   | Y   |       | \$1,440,000.00 | \$889,360.00   | \$1,088,000.00 | 62         | 32       |
| 85-B-0025 | BILL STRON  | Y   |       | \$6,485,000.00 | \$6,704,275.00 |                | -3         | ERROR    |
| 85-B-0025 | SWEPCO COR  | Y   |       | \$7,603,756.00 | \$6,704,275.00 |                | 13         | ERROR    |
| 85-B-0029 | TRATARD     | Y   |       | \$7,675,000.00 | \$6,704,275.00 |                | 14         | ERROR    |
| 85-B-0029 | TEXAS CAPI  | Y   |       | \$6,755,000.00 | \$6,704,275.00 |                | 1          | ERROR    |
| 85-B-0036 | CONTR GRDU  | Y   |       | \$3,542,315.00 | \$3,645,800.00 |                | -3         | ERROR    |
| 85-B-0036 | D L FOLIN   | Y   |       | \$3,392,345.00 | \$3,645,800.00 |                | -9         | ERROR    |
| 85-B-0036 | DAVIS & HA  | Y   |       | \$3,119,491.00 | \$3,645,800.00 |                | -14        | ERROR    |
| 85-B-0036 | H E CALLAH  | Y   |       | \$3,066,914.00 | \$3,645,800.00 |                | -16        | ERROR    |
| 85-B-0036 | JCK CONST   | Y   |       | \$5,211,000.00 | \$3,645,800.00 |                | 43         | ERROR    |
| 85-B-0036 | JCK CONSTR  | Y   |       | \$4,470,000.00 | \$3,645,800.00 |                | 23         | ERROR    |
| 85-B-0036 | PLACEMAY C  | Y   |       | \$3,084,000.00 | \$3,645,800.00 |                | -17        | ERROR    |
| 85-B-0036 | SPHSTAL     | Y   |       | \$3,465,044.00 | \$3,645,800.00 |                | -5         | ERROR    |
| 85-B-0036 | TRATARTOS   | Y   |       | \$4,290,000.00 | \$3,645,800.00 |                | 17         | ERROR    |
| 85-B-0045 | CAPALDI BR  | Y   |       | \$2,552,756.00 | \$1,641,518.00 | \$2,460,000.00 | 56         | 4        |
| 85-B-0045 | CONST ENG   | Y   |       | \$3,521,341.00 | \$1,641,518.00 | \$2,460,000.00 | 115        | 43       |
| 85-B-0045 | G ERILLO C  | Y   |       | \$2,460,000.00 | \$1,641,518.00 | \$2,460,000.00 | 50         | 0        |
| 85-B-0045 | HUGO KEY &  | Y   |       | \$1,755,247.00 | \$1,641,518.00 | \$2,460,000.00 | 7          | -29      |
| 85-B-0045 | SWEPCO COR  | Y   |       | \$2,554,000.00 | \$1,641,518.00 | \$2,460,000.00 | 56         | 4        |
| 85-B-0059 | ANGELD'S C  | Y   |       | \$264,000.00   | \$245,225.00   | \$264,000.00   | 8          | 0        |
| 85-B-0059 | BOND ELEC   | ? Y |       | \$113,106.00   | \$245,225.00   | \$264,000.00   | -54        | -57      |





| CONTRACT# | OFFEROR    | SE | S.D.B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 85-B-0059 | KEM CONSTR | Y  |       | \$457,600.00   | \$245,225.00   | \$264,000.00   | 87        | 73       |
| 85-B-0059 | FEROSI BRO | Y  |       | \$344,776.00   | \$245,225.00   | \$264,000.00   | 41        | 31       |
| 85-B-0062 | AMERICAN C | Y  |       | \$473,257.00   | \$420,288.00   | \$373,749.00   | 14        | 28       |
| 85-B-0062 | BELL STRDM | Y  |       | \$366,899.00   | \$420,288.00   | \$373,749.00   | -6        | 9        |
| 85-B-0062 | DANLADI CD | Y  |       | \$584,000.00   | \$420,288.00   | \$373,749.00   | 53        | 83       |
| 85-B-0062 | HUTCHINSON | Y  |       | \$384,893.00   | \$420,288.00   | \$373,749.00   | -8        | 3        |
| 85-B-0062 | M & M SERV | Y  |       | \$628,953.00   | \$420,288.00   | \$373,749.00   | 48        | 67       |
| 85-B-0062 | RANCO CONS | Y  |       | \$472,000.00   | \$420,288.00   | \$373,749.00   | 12        | 26       |
| 85-B-0062 | RAY ANGELI | Y  |       | \$444,000.00   | \$420,288.00   | \$373,749.00   | 6         | 19       |
| 85-B-0062 | SAN LUCAS  | Y  |       | \$373,749.00   | \$420,288.00   | \$373,749.00   | -11       | 0        |
| 85-B-0062 | TAYLOR MOD | Y  |       | \$483,000.00   | \$420,288.00   | \$373,749.00   | 15        | 29       |
| 85-B-0062 | TITAN CONS | Y  |       | \$632,000.00   | \$420,288.00   | \$373,749.00   | 55        | 85       |
| 85-B-0070 | ADVANCED M | Y  |       | \$1,454,597.00 | \$767,000.00   | \$145,597.00   | 30        | 899      |
| 85-B-0070 | MAGNUM INC | Y  |       | \$1,497,000.00 | \$767,000.00   | \$145,597.00   | 95        | 928      |
| 85-B-0070 | STRUCTURAL | Y  |       | \$1,914,850.00 | \$767,000.00   | \$145,597.00   | 150       | 1215     |
| 85-B-0075 | ARNOLD M D | Y  |       | \$1,710,427.00 | \$1,316,730.00 |                | 20        | ERROR    |
| 85-B-0075 | CARLIN CON | Y  |       | \$1,568,205.00 | \$1,316,730.00 | \$1,064,344.00 | 27        | 54       |
| 85-B-0075 | JAMES J O' | Y  |       | \$1,958,657.00 | \$1,316,730.00 | \$1,064,344.00 | 43        | 81       |
| 85-B-0075 | PLACEWAY C | ?  |       | \$1,826,000.00 | \$1,316,730.00 | \$1,064,344.00 | 39        | 68       |
| 85-B-0075 | SWEPCO CDR | Y  |       | \$1,938,000.00 | \$1,316,730.00 | \$1,064,344.00 | 40        | 70       |
| 85-B-0075 | THAMROCK A | Y  |       | \$1,830,600.00 | \$1,316,730.00 | \$1,064,344.00 | 39        | 69       |
| 85-B-0078 | A.B. COCHR | Y  |       | \$5,557,000.00 | \$5,210,788.00 | \$4,928,714.00 | -11       | 13       |
| 85-B-0078 | DOVID ENGI | Y  |       | \$5,497,900.00 | \$5,210,788.00 | \$4,928,714.00 | -11       | 12       |
| 85-B-0078 | DUNLOP & C |    |       | \$4,928,714.00 | \$5,210,788.00 | \$4,928,714.00 | -21       | 0        |
| 85-B-0078 | FORCE CONS |    |       | \$5,588,900.00 | \$5,210,788.00 | \$4,928,714.00 | -8        | 15       |
| 85-B-0078 | GENDRY CON |    |       | \$5,297,000.00 | \$5,210,788.00 | \$4,928,714.00 | -15       | 7        |
| 85-B-0078 | GOHEEN G C | Y  |       | \$5,320,000.00 | \$5,210,788.00 | \$4,928,714.00 | -14       | 6        |
| 85-B-0078 | HOWARD W.  |    |       | \$6,260,750.00 | \$5,210,788.00 | \$4,928,714.00 | 1         | 27       |
| 85-B-0078 | IND CONTRA | Y  |       | \$6,345,000.00 | \$5,210,788.00 | \$4,928,714.00 | 2         | 23       |
| 85-B-0078 | LICHTEFELD | Y  |       | \$5,250,000.00 | \$5,210,788.00 | \$4,928,714.00 | -15       | 7        |
| 85-B-0078 | STRUCK G   | Y  |       | \$5,245,800.00 | \$5,210,788.00 | \$4,928,714.00 | -16       | 6        |
| 85-B-0078 | TRAYLER BR | Y  |       | \$5,587,889.00 | \$5,210,788.00 | \$4,928,714.00 | -10       | 13       |
| 85-B-0078 | WEDDLE BRD | Y  |       | \$5,365,000.00 | \$5,210,788.00 | \$4,928,714.00 | -14       | 9        |
| 85-B-0078 | BLINDERMAN | Y  |       | \$5,708,054.00 | \$5,260,750.00 | \$4,928,714.00 | -9        | 16       |
| 85-B-0081 | ROBERT J S | Y  |       | \$1,533,500.00 | \$52,108.00    |                | 79        | ERROR    |
| 85-B-0084 | ALFRED J F | Y  |       | \$81,790.00    | \$57,700.00    |                | 42        | ERROR    |
| 85-B-0084 | CARR & DUF | Y  |       | \$93,450.00    | \$57,700.00    |                | 62        | ERROR    |
| 85-B-0084 | KIRK BROS  | Y  |       | \$89,500.00    | \$57,700.00    |                | 55        | ERROR    |
| 85-B-0084 | KUBIAK ELE | Y  |       | \$58,374.00    | \$57,700.00    |                | 20        | ERROR    |
| 85-B-0084 | NICERO ELE | Y  |       | \$94,400.00    | \$57,700.00    |                | 64        | ERROR    |
| 85-B-0084 | PHILLIPS B | Y  |       | \$71,710.00    | \$57,700.00    |                | 24        | ERROR    |
| 85-B-0084 | RAY ANGELI | Y  |       | \$90,000.00    | \$57,700.00    |                | 61        | ERROR    |
| 85-B-0090 | A.F. LUSI  | N  |       | \$5,847,000.00 | \$7,000,000.00 | \$6,847,000.00 | -2        | 0        |
| 85-B-0090 | JLT CONST  | N  |       | \$5,987,000.00 | \$7,000,000.00 | \$6,847,000.00 | -0        | 2        |
| 85-B-0091 | IRRIGATION | Y  |       | \$111,997.00   | \$178,800.00   |                | -37       | ERROR    |
| 85-B-0091 | HALLORAN & | Y  |       | \$114,800.00   | \$178,800.00   |                | -36       | ERROR    |
| 85-B-0091 | TERRY'S CD | Y  |       | \$160,000.00   | \$178,800.00   |                | -11       | ERROR    |
| 85-B-0093 | CHARLES CD | Y  |       | \$4,808,000.00 | \$4,575,653.00 | \$4,808,000.00 | 5         | 0        |
| 85-B-0093 | J.C.N CONS | Y  |       | \$6,344,000.00 | \$4,575,653.00 | \$4,808,000.00 | 38        | 32       |
| 85-B-0101 | HALDIN     | Y  |       | \$289,485.00   | \$152,853.00   | \$289,485.00   | 2         | 0        |
| 85-B-0101 | HAMMITT CD | Y  |       | \$425,000.00   | \$282,853.00   | \$289,485.00   | 50        | 47       |
| 85-B-0101 | INDUSTRIAL | Y  |       | \$347,200.00   | \$282,853.00   | \$289,485.00   | 23        | 20       |



| CONTRACT# | OFFEROR    | SE | S.O.B. | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AVE |
|-----------|------------|----|--------|----------------|----------------|----------------|-----------|----------|
| 85-B-0114 | AMERICAN H | Y  |        | \$387,800.00   | \$454,000.00   |                | -15       | ERROR    |
| 85-B-0114 | KIRK ERDE  | Y  |        | \$387,400.00   | \$454,000.00   |                | -15       | ERROR    |
| 85-B-0114 | REITER CON | Y  |        | \$387,000.00   | \$454,000.00   |                | -13       | ERROR    |
| 85-B-0114 | UNITED ESE | Y  |        | \$347,649.00   | \$454,000.00   |                | -23       | ERROR    |
| 85-B-0134 | CHARLES CO | N  |        | \$9,898,000.00 | \$8,543,300.00 | \$9,180,000.00 | 16        | 8        |
| 85-B-0134 | HARVEY CON | N  |        | \$9,160,000.00 | \$8,543,300.00 | \$9,180,000.00 | 7         | 0        |
| 85-B-0134 | JEFFERSON  | N  |        | \$9,191,000.00 | \$8,543,300.00 | \$9,180,000.00 | 8         | 0        |
| 85-B-0134 | PERBODY CO | N  |        | \$9,814,000.00 | \$8,543,300.00 | \$9,180,000.00 | 15        | 7        |
| 85-B-0148 | ARROW FENC | Y  |        | \$682,277.00   | \$1,055,045.00 | \$468,972.00   | -16       | 88       |
| 85-B-0148 | B S McCARE | Y  |        | \$667,000.00   | \$1,055,045.00 | \$468,972.00   | -37       | 42       |
| 85-B-0148 | BUTLER FEN | Y  |        | \$524,845.00   | \$1,055,045.00 | \$468,972.00   | -50       | 12       |
| 85-B-0148 | COLLINSON  | Y  |        | \$494,740.00   | \$1,055,045.00 | \$468,972.00   | -59       | 5        |
| 85-B-0148 | CROWLEY CO | Y  |        | \$773,200.00   | \$1,055,045.00 | \$468,972.00   | -27       | 65       |
| 85-B-0148 | DEESE CON  | Y  |        | \$667,000.00   | \$1,055,045.00 | \$468,972.00   | -38       | 40       |
| 85-B-0148 | RELIANCE F | Y  |        | \$584,000.00   | \$1,055,045.00 | \$468,972.00   | -45       | 25       |
| 85-B-0148 | ROGERS FEN | ?  |        | \$468,972.00   | \$1,055,045.00 | \$468,972.00   | -55       | 0        |
| 85-B-0148 | THE ROWE I | Y  |        | \$494,000.00   | \$1,055,045.00 | \$468,972.00   | -53       | 5        |
| 85-B-0148 | ARROW FENC | Y  | ?      | \$682,277.00   | \$1,055,045.00 | \$468,972.00   | -16       | 88       |
| 85-B-0148 | B S. McCAR | Y  | ?      | \$667,000.00   | \$1,055,045.00 | \$468,972.00   | -37       | 42       |
| 85-B-0148 | BUTLER FEN | Y  | ?      | \$524,845.00   | \$1,055,045.00 | \$468,972.00   | -50       | 12       |
| 85-B-0148 | COLLINSON  | Y  | ?      | \$494,740.00   | \$1,055,045.00 | \$468,972.00   | -59       | 5        |
| 85-B-0148 | CROWLEY CO | Y  | ?      | \$773,200.00   | \$1,055,045.00 | \$468,972.00   | -27       | 65       |
| 85-B-0148 | DEESE CON  | ?  | ?      | \$667,000.00   | \$1,055,045.00 | \$468,972.00   | -38       | 40       |
| 85-B-0148 | RELIANCE F | Y  | ?      | \$584,000.00   | \$1,055,045.00 | \$468,972.00   | -45       | 25       |
| 85-B-0148 | THE ROWE I | Y  | ?      | \$494,000.00   | \$1,055,045.00 | \$468,972.00   | -53       | 5        |
| 85-B-0148 | ROGERS FEN | Y  | N      | \$468,972.00   | \$1,055,045.00 | \$468,972.00   | -55       | 0        |
| 85-B-0152 | B. S. McCA | y  |        | \$979,000.00   | \$900,000.00   | \$979,000.00   | 9         | 0        |
| 85-B-0152 | NATIONAL B | Y  |        | \$1,490,000.00 | \$900,000.00   | \$979,000.00   | 66        | 52       |
| 85-B-0152 | BENSHAW BA | Y  |        | \$966,300.00   | \$900,000.00   | \$979,000.00   | 10        | 1        |
| 85-B-0152 | RICHARD M. | Y  |        | \$953,000.00   | \$900,000.00   | \$979,000.00   | 11        | 2        |
| 85-B-0152 | STRUCTURAL | Y  |        | \$1,007,007.00 | \$900,000.00   | \$979,000.00   | 12        | 3        |
| 85-B-0155 | HANCO CONS | Y  |        | \$102,000.00   | \$73,000.00    | \$87,800.00    | 40        | 16       |
| 85-B-0155 | CEASAR CON | Y  |        | \$95,000.00    | \$73,000.00    | \$87,800.00    | 30        | 8        |
| 85-B-0155 | FARINELLI  | Y  |        | \$87,800.00    | \$73,000.00    | \$87,800.00    | 20        | 0        |
| 85-B-0155 | MARTELL CO | Y  |        | \$154,100.00   | \$73,000.00    | \$87,800.00    | 111       | 76       |
| 85-B-0160 | PMA, INC.  | Y  |        | \$257,255.00   | \$196,700.00   | \$257,255.00   | 31        | 0        |
| 85-B-0160 | POLARIS CO | Y  |        | \$266,582.39   | \$196,700.00   | \$257,255.00   | 35        | 4        |
| 85-B-0167 | GABEEN CON | Y  |        | \$3,056,650.00 | \$4,137,000.00 |                | -26       | ERROR    |
| 85-B-0167 | LICHTEFELD | Y  |        | \$3,143,250.00 | \$4,137,000.00 |                | -24       | ERROR    |
| 85-B-0167 | KREMPP LUX | Y  |        | \$3,200,500.00 | \$4,137,000.00 |                | -23       | ERROR    |
| 85-B-0167 | DUNLAP & C | Y  |        | \$3,364,750.00 | \$4,137,000.00 |                | -19       | ERROR    |
| 85-B-0167 | DAVID ENG  | Y  |        | \$3,956,525.00 | \$4,137,000.00 |                | -19       | ERROR    |
| 85-B-0167 | TRAFDR BR  | Y  |        | \$3,975,000.00 | \$4,137,000.00 |                | -18       | ERROR    |
| 85-B-0167 | GLEN ROY C | Y  |        | \$3,442,400.00 | \$4,137,000.00 |                | -17       | ERROR    |
| 85-B-0167 | WEDDLE BRO | Y  |        | \$3,444,500.00 | \$4,137,000.00 |                | -17       | ERROR    |
| 85-B-0167 | LENFY LUMB | Y  |        | \$3,516,365.00 | \$4,137,000.00 |                | -15       | ERROR    |
| 85-B-0167 | RIVERA-CDT | Y  |        | \$3,558,506.00 | \$4,137,000.00 |                | -14       | ERROR    |
| 85-B-0169 | EAM OKLEY  | Y  |        | \$742,125.00   | \$550,664.00   |                | -13       | ERROR    |
| 85-B-0169 | BEATY CONS | Y  |        | \$812,700.00   | \$550,664.00   |                | -4        | ERROR    |
| 85-B-0169 | NAC CONETR | Y  |        | \$1,141,000.00 | \$550,664.00   |                | 34        | ERROR    |
| 85-B-0169 | W.D. BARTL | Y  |        | \$718,900.00   | \$550,664.00   |                | -15       | ERROR    |
| 85-B-0169 | WINELOW CO | Y  |        | \$731,200.00   | \$550,664.00   |                | -7        | ERROR    |



| CONTRACT# | OFFEROR    | SB | S O E | BID            | ED'IT EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 85-B-0180 | AMERICAN C | Y  |       | \$1,595,449.00 | \$2,130,104.00 | \$1,795,448.00 | -20       | -6       |
| 85-B-0180 | J C N CORP | Y  |       | \$3,094,000.00 | \$2,130,104.00 | \$1,795,448.00 | 45        | 72       |
| 85-B-0180 | D L FOULIN | Y  |       | \$9,000,000.00 | \$2,130,104.00 | \$1,795,448.00 | 323       | 401      |
| 85-B-0181 | R.J. DELNO | Y  |       | \$276,306.00   | \$249,885.00   | \$276,306.00   | 11        | 0        |
| 85-B-0185 | A.P. WHITA | Y  |       | \$274,000.00   | \$164,096.00   | \$199,885.00   | 67        | 37       |
| 85-B-0185 | D.L. FOULI | Y  |       | \$246,000.00   | \$164,096.00   | \$199,885.00   | 50        | 23       |
| 85-B-0185 | HANNITT CO | Y  |       | \$214,000.00   | \$164,096.00   | \$199,885.00   | 30        | 7        |
| 85-B-0185 | LYBURN     | Y  |       | \$322,100.00   | \$164,096.00   | \$199,885.00   | 36        | 61       |
| 85-B-0185 | OLD TOWN A | Y  |       | \$199,885.00   | \$164,096.00   | \$199,885.00   | 22        | 0        |
| 85-B-0185 | FRAUGHT CO | Y  |       | \$265,500.00   | \$164,096.00   | \$199,885.00   | 62        | 33       |
| 85-B-0189 | TRI STATE  | Y  |       | \$2,353,000.00 | \$1,619,408.00 |                | 45        | ERROR    |
| 85-B-0189 | ACME CONST | Y  |       | \$2,538,500.00 | \$1,619,408.00 |                | 57        | ERROR    |
| 85-B-0189 | FLETCHER-H | Y  |       | \$2,583,559.00 | \$1,619,408.00 |                | 66        | ERROR    |
| 85-B-0189 | DANLADI    | Y  |       | \$2,675,000.00 | \$1,619,408.00 |                | 66        | ERROR    |
| 85-B-0193 | F.J. STELL | Y  |       | \$9,401,200.00 | \$5,500,000.00 |                | 27        | ERROR    |
| 85-B-0193 | EASTERN CO | Y  |       | \$9,400,000.00 | \$5,600,194.00 |                | 27        | ERROR    |
| 85-B-0195 | M.J. SIMKO | Y  |       | \$1,020,000.00 | \$852,478.00   |                | 21        | ERROR    |
| 85-B-0195 | MIDDLESEX  | Y  |       | \$978,000.00   | \$852,478.00   |                | 15        | ERROR    |
| 85-B-0195 | MOORES & N | Y  |       | \$1,024,999.00 | \$852,478.00   |                | 20        | ERROR    |
| 85-B-0195 | FRAUGHT CO | Y  |       | \$1,245,000.00 | \$852,478.00   |                | 46        | ERROR    |
| 85-B-0195 | A.G.M. MAR | -- |       | \$36,000.00    | \$41,000.00    | \$67,654.00    | 134       | 42       |
| 85-B-0196 | ATLANTIS-C | Y  |       | \$67,654.00    | \$41,000.00    | \$67,654.00    | 65        | 0        |
| 85-B-0196 | EAST COAST | -- |       | \$38,515.00    | \$41,000.00    | \$67,654.00    | -6        | -43      |
| 85-B-0196 | J.M. CASHM | Y  |       | \$89,500.00    | \$41,000.00    | \$67,654.00    | 115       | 31       |
| 85-B-0196 | REV-LYN CO | Y  |       | \$75,000.00    | \$41,000.00    | \$67,654.00    | 83        | 11       |
| 85-B-0196 | SOLIMANOD  | Y  |       | \$116,500.00   | \$41,000.00    | \$67,654.00    | 125       | 73       |
| 85-B-0199 | HEARTH HTS | Y  |       | \$972,000.00   | \$1,059,000.00 | \$847,000.00   | -9        | 15       |
| 85-B-0199 | LOTT ELECT | Y  |       | \$847,000.00   | \$1,059,000.00 | \$847,000.00   | -20       | 0        |
| 85-B-0199 | VISION DAT | ?  |       | \$0.00         | \$1,059,000.00 | \$847,000.00   | -100      | -100     |
| 85-B-0302 | POSTPONED  | Y  |       |                |                |                | ERROR     | ERROR    |
| 85-B-0313 | MARTELL CO | Y  |       | \$347,000.00   | \$191,200.00   | \$343,000.00   | 81        | 1        |
| 85-B-0313 | PHA, INC   | -- |       | \$343,000.00   | \$191,200.00   | \$343,000.00   | 79        | 0        |
| 85-B-0313 | DANLADI CO | Y  | Y     | \$423,000.00   | \$191,200.00   | \$343,000.00   | 121       | 23       |
| 85-B-0316 | -LIE CONST | ?  |       | \$1,058,600.00 | \$717,000.00   | \$784,000.00   | 48        | 35       |
| 85-B-0316 | -RNER-LIND | Y  |       | \$1,054,500.00 | \$717,000.00   | \$784,000.00   | 47        | 35       |
| 85-B-0316 | ARTCO CONT | Y  |       | \$924,373.00   | \$717,000.00   | \$784,000.00   | 29        | 18       |
| 85-B-0316 | BARTON & B | ?  |       | \$1,000,000.00 | \$717,000.00   | \$784,000.00   | 39        | 28       |
| 85-B-0316 | ELGIN BLDR | Y  |       | \$875,000.00   | \$717,000.00   | \$784,000.00   | 22        | 12       |
| 85-B-0316 | FERNDALE E | ?  |       | \$119,958.00   | \$717,000.00   | \$784,000.00   | -83       | -85      |
| 85-B-0316 | FILKER CON | ?  |       | \$1,200,000.00 | \$717,000.00   | \$784,000.00   | 67        | 53       |
| 85-B-0316 | G D. LEWIS | Y  |       | \$784,000.00   | \$717,000.00   | \$784,000.00   | 9         | 0        |
| 85-B-0316 | RELIANCE B | Y  |       | \$1,000,000.00 | \$717,000.00   | \$784,000.00   | 38        | 28       |
| 85-B-0316 | SCHILLER C | Y  |       | \$887,300.00   | \$717,000.00   | \$784,000.00   | 24        | 13       |
| 85-B-0316 | SITE DEVEL | Y  |       | \$953,000.00   | \$717,000.00   | \$784,000.00   | 35        | 24       |
| 85-B-0324 | EUGENE RIC | Y  |       | \$89,370.00    | \$37,370.00    | \$61,000.00    | 141       | 47       |
| 85-B-0324 | H.V. ALLEN | Y  |       | \$61,000.00    | \$37,370.00    | \$61,000.00    | 53        | 0        |
| 85-B-0329 | BARTON & B | Y  |       | \$1,000,000.00 | \$380,100.00   | \$464,587.00   | 163       | 115      |
| 85-B-0329 | ELGIN BUIL | Y  |       | \$611,300.00   | \$380,100.00   | \$464,587.00   | 61        | 32       |
| 85-B-0329 | FARVIEW CO | Y  |       | \$654,360.00   | \$380,100.00   | \$464,587.00   | 72        | 41       |
| 85-B-0329 | FELKER CON | Y  |       | \$650,000.00   | \$380,100.00   | \$464,587.00   | 71        | 40       |
| 85-B-0329 | PARKWOOD C | Y  |       | \$495,787.00   | \$380,100.00   | \$464,587.00   | 30        | 7        |
| 85-B-0329 | R.W. EDGAR | Y  |       | \$571,500.00   | \$380,100.00   | \$464,587.00   | 50        | 23       |



| CONTRACT# | OFFEROR     | SE | S O L E | BID          | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF A/R |
|-----------|-------------|----|---------|--------------|--------------|--------------|-----------|----------|
| 85-B-0329 | SITE DEVEL  | Y  |         | \$640,500.00 | \$980,100.00 | \$464,587.00 | 69        | 38       |
| 85-B-0343 | PIPING SYS  | Y  |         | \$69,933.00  | \$101,000.00 | \$69,933.00  | -31       | 0        |
| 85-B-0343 | TEMPD INC   | Y  |         | \$77,200.00  | \$101,000.00 | \$69,933.00  | -24       | 10       |
| 85-B-0343 | CAM AYC 2   | Y  |         | \$113,323.00 | \$101,000.00 | \$69,933.00  | 12        | 62       |
| 85-B-0343 | CONDITIONA  | Y  |         | \$114,400.00 | \$101,000.00 | \$69,933.00  | 13        | 64       |
| 85-B-0343 | BODYBINDER  | Y  |         | \$133,976.00 | \$101,000.00 | \$69,933.00  | 33        | 92       |
| 85-B-0343 | D DIXON DD  | Y  |         | \$139,850.00 | \$101,000.00 | \$69,933.00  | 39        | 100      |
| 85-B-0343 | HAMMITT CD  | Y  |         | \$147,000.00 | \$101,000.00 | \$69,933.00  | 46        | 110      |
| 85-B-0382 | B3A MARINE  | Y  |         | \$309,840.00 | \$315,683.00 | \$209,000.00 | 17        | 77       |
| 85-B-0382 | RAY WELDN   | Y  |         | \$312,500.00 | \$315,683.00 | \$209,000.00 | -1        | 50       |
| 85-B-0382 | ERIM CONTR  | Y  |         | \$350,000.00 | \$315,683.00 | \$209,000.00 | 11        | 67       |
| 85-B-0382 | CENTRAL ME  | Y  |         | \$162,000.00 | \$315,683.00 | \$209,000.00 | -17       | 29       |
| 85-B-0382 | CLIMATECH   | Y  |         | \$244,000.00 | \$315,683.00 | \$209,000.00 | 9         | 65       |
| 85-B-0382 | DIERKS HTG  | Y  |         | \$307,000.00 | \$315,683.00 | \$209,000.00 | -3        | 47       |
| 85-B-0382 | F & H PLNG  | Y  |         | \$525,500.00 | \$315,683.00 | \$209,000.00 | 66        | 151      |
| 85-B-0382 | I. D. EQUIP | Y  |         | \$321,000.00 | \$315,683.00 | \$209,000.00 | 2         | 54       |
| 85-B-0382 | LAFATA CDF  | Y  |         | \$352,240.00 | \$315,683.00 | \$209,000.00 | 12        | 69       |
| 85-B-0382 | M. G. SLINK | Y  |         | \$264,800.00 | \$315,683.00 | \$209,000.00 | -16       | 27       |
| 85-B-0382 | MARIO MECH  | Y  |         | \$360,000.00 | \$315,683.00 | \$209,000.00 | 14        | 72       |
| 85-B-0382 | MICHAEL C.  | Y  |         | \$397,400.00 | \$315,683.00 | \$209,000.00 | 26        | 90       |
| 85-B-0382 | R. MARIO F  | Y  |         | \$324,000.00 | \$315,683.00 | \$209,000.00 | 3         | 55       |
| 85-B-0382 | RAY-KAY IN  | Y  |         | \$298,000.00 | \$315,683.00 | \$209,000.00 | -9        | 38       |
| 85-B-0382 | SOEBNE & S  | Y  |         | \$249,700.00 | \$315,683.00 | \$209,000.00 | -21       | 19       |
| 85-B-0382 | STATE MECH  | Y  |         | \$464,000.00 | \$315,683.00 | \$209,000.00 | 47        | 122      |
| 85-B-0382 | STEVEN'S T  | Y  |         | \$205,000.00 | \$315,683.00 | \$209,000.00 | -34       | 0        |
| 85-B-0382 | V & D FLBG  | Y  |         | \$287,314.00 | \$315,683.00 | \$209,000.00 | -9        | 37       |
| 85-B-0403 | AFEL WEIDE  | Y  |         | \$193,000.00 | \$138,829.00 | \$125,500.00 | 39        | 54       |
| 85-B-0403 | COOLING CD  | Y  |         | \$242,886.00 | \$138,829.00 | \$125,500.00 | 75        | 53       |
| 85-B-0403 | COTTMAN ME  | Y  |         | \$238,100.00 | \$138,829.00 | \$125,500.00 | 72        | 30       |
| 85-B-0403 | DOLAN MECH  | Y  |         | \$133,730.00 | \$138,829.00 | \$125,500.00 | -4        | 7        |
| 85-B-0403 | KIRK BROTH  | Y  |         | \$193,900.00 | \$138,829.00 | \$125,500.00 | 44        | 59       |
| 85-B-0403 | KOHLER BRO  | Y  |         | \$125,500.00 | \$138,829.00 | \$125,500.00 | -10       | 0        |
| 85-B-0403 | MECHANICAL  | Y  |         | \$169,879.00 | \$138,829.00 | \$125,500.00 | 22        | 35       |
| 85-B-0403 | NORTH AMER  | Y  |         | \$249,000.00 | \$138,829.00 | \$125,500.00 | 75        | 94       |
| 85-B-0403 | SCHAFFER E  | Y  |         | \$162,971.00 | \$138,829.00 | \$125,500.00 | 17        | 30       |
| 85-B-0418 | ABEL & HES  | Y  |         | \$129,900.00 | \$133,000.00 | \$86,999.00  | -2        | 49       |
| 85-B-0418 | CRISCELLE   | Y  |         | \$145,500.00 | \$133,000.00 | \$86,999.00  | 12        | 72       |
| 85-B-0418 | GUARDIAN C  | Y  |         | \$128,279.00 | \$133,000.00 | \$86,999.00  | -4        | 47       |
| 85-B-0418 | HORN BROTH  | Y  |         | \$174,800.00 | \$133,000.00 | \$86,999.00  | 31        | 101      |
| 85-B-0418 | J FONIDARI  | Y  |         | \$152,660.00 | \$133,000.00 | \$86,999.00  | 15        | 75       |
| 85-B-0418 | JJ MORRIS   | Y  |         | \$98,888.00  | \$133,000.00 | \$86,999.00  | -26       | 14       |
| 85-B-0418 | LIBERTY BE  | Y  |         | \$86,999.00  | \$133,000.00 | \$86,999.00  | -35       | -0       |
| 85-B-0418 | LYBURN CON  | Y  |         | \$221,000.00 | \$133,000.00 | \$86,999.00  | 66        | 154      |
| 85-B-0418 | ROBTON INC  | Y  |         | \$116,000.00 | \$133,000.00 | \$86,999.00  | -11       | 36       |
| 85-B-0425 | A P ELEC C  | Y  |         | \$161,052.00 | \$93,000.00  | \$145,000.00 | 73        | 11       |
| 85-B-0425 | GAUDELLI B  | ?  |         | \$189,000.00 | \$93,000.00  | \$145,000.00 | 103       | 30       |
| 85-B-0425 | KIED CONST  | Y  |         | \$181,543.00 | \$93,000.00  | \$145,000.00 | 95        | 25       |
| 85-B-0425 | TAMBE CONE  | Y  |         | \$219,000.00 | \$93,000.00  | \$145,000.00 | 135       | 51       |
| 85-B-0425 | UNITED CON  | Y  |         | \$145,000.00 | \$93,000.00  | \$145,000.00 | 56        | 0        |
| 85-B-0426 | LOTT GROUP  | Y  |         | \$18,209.00  | \$220,113.00 | \$182,000.00 | -92       | -30      |
| 85-B-0426 | HAMPTON BE  | Y  |         | \$362,800.00 | \$220,113.00 | \$182,000.00 | 65        | 99       |
| 85-B-0426 | UNITED CON  | Y  |         | \$21,800.00  | \$220,113.00 | \$182,000.00 | -90       | -33      |





| CONTRACT# | OFFEROR    | SE | S.D.B | ETD            | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|--------------|--------------|-----------|----------|
| 85-B-0406 | MAGNUM INC | Y  |       | \$543,568.00   | \$220,113.00 | \$182,000.00 | 56        | 89       |
| 85-B-0406 | UN F. GAVI | Y  |       | \$384,648.00   | \$220,113.00 | \$182,000.00 | 75        | 111      |
| 85-B-0408 | DVALL INC  | Y  |       | \$378,888.00   | \$304,361.00 |              | 24        | ERROR    |
| 85-B-0408 | LAKE CO.   | Y  |       | \$277,000.00   | \$304,361.00 |              | -9        | ERROR    |
| 85-B-0408 | MARTELL CO | Y  |       | \$389,600.00   | \$304,361.00 |              | 11        | ERROR    |
| 85-B-0409 | MALLISTER  | Y  |       | \$197,000.00   | \$159,258.00 | \$197,000.00 | 24        | 0        |
| 85-B-0409 | McMULLEN F | Y  |       | \$269,700.00   | \$159,258.00 | \$197,000.00 | 69        | 37       |
| 85-B-0400 | ROLAND W   | Y  |       | \$224,399.00   | \$195,771.00 | \$224,399.00 | 15        | 0        |
| 85-B-0406 | ATHAN CONS | Y  |       | \$594,000.00   | \$682,100.00 | \$727,841.00 | -13       | -16      |
| 85-B-0406 | DAVISVILLE | Y  |       | \$727,841.00   | \$682,100.00 | \$727,841.00 | 7         | 0        |
| 85-B-0406 | MARTELL CO | Y  |       | \$682,700.00   | \$682,100.00 | \$727,841.00 | 30        | 22       |
| 85-B-0406 | MALLISTER  | Y  |       | \$937,517.00   | \$682,100.00 | \$727,841.00 | 37        | 29       |
| 85-B-0406 | McMULLEN R | Y  |       | \$814,132.00   | \$682,100.00 | \$727,841.00 | 19        | 12       |
| 85-B-0406 | MILD CONST | Y  |       | \$1,180,967.00 | \$682,100.00 | \$727,841.00 | 73        | 62       |
| 85-B-0406 | PRATON CON | Y  |       | \$864,450.00   | \$682,100.00 | \$727,841.00 | 27        | 19       |
| 85-B-0406 | R. WIZBAND | Y  |       | \$748,430.00   | \$682,100.00 | \$727,841.00 | 10        | 3        |
| 85-B-0406 | S. KANE &  | Y  |       | \$1,169,000.00 | \$682,100.00 | \$727,841.00 | 71        | 61       |
| 85-B-0406 | BARLADI CO | Y  | Y     | \$949,000.00   | \$682,100.00 | \$727,841.00 | 38        | 30       |
| 85-B-0407 | ATHAN CONT | Y  |       | \$438,000.00   | \$595,300.00 | \$438,000.00 | -26       | 0        |
| 85-B-0407 | B M DELTA  | Y  |       | \$488,711.00   | \$595,300.00 | \$438,000.00 | -19       | 10       |
| 85-B-0407 | GROVE ROOF | Y  |       | \$467,738.00   | \$595,300.00 | \$438,000.00 | -21       | 7        |
| 85-B-0407 | J YOKOLAKI | Y  |       | \$597,600.00   | \$595,300.00 | \$438,000.00 | 0         | 35       |
| 85-B-0407 | MARTELL CO | Y  |       | \$578,600.00   | \$595,300.00 | \$438,000.00 | -3        | 32       |
| 85-B-0407 | MERIS CONS | Y  |       | \$730,600.00   | \$595,300.00 | \$438,000.00 | 23        | 67       |
| 85-B-0407 | NIND CONTR | Y  |       | \$756,648.00   | \$595,300.00 | \$438,000.00 | 27        | 73       |
| 85-B-0407 | PAN BUILDI | Y  |       | \$649,000.00   | \$595,300.00 | \$438,000.00 | 9         | 48       |
| 85-B-0407 | PIONEER CO | Y  |       | \$443,000.00   | \$595,300.00 | \$438,000.00 | -26       | 1        |
| 85-B-0407 | PIRES CONS | Y  |       | \$440,300.00   | \$595,300.00 | \$438,000.00 | -26       | 1        |
| 85-B-0407 | PRUTON CON | Y  |       | \$532,460.00   | \$595,300.00 | \$438,000.00 | -11       | 22       |
| 85-B-0407 | STAR BRITE | Y  |       | \$529,150.00   | \$595,300.00 | \$438,000.00 | -11       | 21       |
| 85-B-0408 | CONDITIONE | Y  |       | \$19,738.00    | \$24,969.00  | \$19,738.00  | -21       | 0        |
| 85-B-0408 | CONDITIONE | Y  |       | \$19,738.00    | \$24,969.00  | \$19,738.00  | -21       | 0        |
| 85-B-0408 | HARRITT CO | Y  |       | \$29,200.00    | \$24,969.00  | \$19,738.00  | 17        | 48       |
| 85-B-0408 | HARRITT CO | Y  |       | \$29,200.00    | \$24,969.00  | \$19,738.00  | 17        | 48       |
| 85-B-0408 | HERRITT CO | Y  |       | \$39,000.00    | \$24,969.00  | \$19,738.00  | 56        | 99       |
| 85-B-0408 | HERRITT CO | Y  |       | \$39,000.00    | \$24,969.00  | \$19,738.00  | 56        | 99       |
| 85-B-0408 | THE GEORGE | Y  |       | \$22,899.00    | \$24,969.00  | \$19,738.00  | -8        | 16       |
| 85-B-0408 | THE GEORGE | Y  |       | \$22,899.00    | \$24,969.00  | \$19,738.00  | -8        | 16       |
| 85-B-0440 | ATLANTIC B | Y  |       | \$110,990.00   | \$70,000.00  |              | 59        | ERROR    |
| 85-B-0449 | BELLS ROOF | Y  |       | \$224,500.00   | \$166,500.00 | \$168,999.00 | 20        | 33       |
| 85-B-0449 | DESIGN ROO | Y  |       | \$188,000.00   | \$166,500.00 | \$168,999.00 | 1         | 11       |
| 85-B-0449 | EAGLE CORN | Y  |       | \$182,618.00   | \$166,500.00 | \$168,999.00 | -2        | 8        |
| 85-B-0449 | ED JACQUES | Y  |       | \$149,495.00   | \$166,500.00 | \$168,999.00 | -20       | -12      |
| 85-B-0449 | NEW LONDON | Y  |       | \$168,999.00   | \$166,500.00 | \$168,999.00 | -9        | 0        |
| 85-B-0449 | PERNIERE I | Y  |       | \$207,940.00   | \$166,500.00 | \$168,999.00 | 11        | 29       |
| 85-B-0449 | T.L.T CONS | Y  |       | \$197,000.00   | \$166,500.00 | \$168,999.00 | 6         | 17       |
| 85-B-0450 | C F I CONS | Y  |       | \$149,175.00   | \$91,400.00  |              | 57        | ERROR    |
| 85-B-0450 | GEM ELDS I | Y  |       | \$60,970.00    | \$91,400.00  |              | -33       | ERROR    |
| 85-B-0450 | MARON CONS | Y  |       | \$68,850.00    | \$91,400.00  |              | -25       | ERROR    |
| 85-B-0450 | NEWMAN JON | Y  |       | \$24,969.00    | \$91,400.00  |              | -73       | ERROR    |
| 85-B-0455 | ATLANTIC B | Y  |       | \$359,750.00   | \$249,000.00 | \$318,957.00 | 62        | 29       |
| 85-B-0455 | CONSOLIDAT | Y  |       | \$318,957.00   | \$249,000.00 | \$318,957.00 | 31        | 0        |



| CONTRACT# | OFFEROR     | SB | S D B | BID            | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|-------------|----|-------|----------------|--------------|--------------|-----------|----------|
| 85-B-0455 | FRAUGHT CO  | Y  |       | \$233,000.00   | \$243,000.00 | \$312,957.00 | 58        | 20       |
| 85-B-0455 | -----       | Y  | --    | \$0.00         | \$243,000.00 | \$312,957.00 | 0         | 0        |
| 85-B-0456 | MAGNUM INC  | Y  |       | \$303,914.00   | \$187,400.00 |              | 62        | ERROR    |
| 85-B-0457 | DESIGN ROD  | Y  |       | \$193,500.00   | \$237,500.00 | \$198,800.00 | -16       | 0        |
| 85-B-0457 | EAGLE CORP  | Y  |       | \$200,043.00   | \$237,500.00 | \$198,800.00 | -16       | 7        |
| 85-B-0457 | ED JACQUES  | Y  |       | \$129,555.00   | \$237,500.00 | \$198,800.00 | -29       | -15      |
| 85-B-0457 | PERINERE I  | Y  |       | \$203,898.00   | \$237,500.00 | \$198,800.00 | -12       | 5        |
| 85-B-0457 | T.L.T. CONG | Y  |       | \$277,000.00   | \$237,500.00 | \$198,800.00 | 17        | 39       |
| 85-B-0461 | CARMON COR  | Y  |       | \$51,537.00    | \$60,996.00  | \$53,460.00  | 50        | 72       |
| 85-B-0461 | DI ROCCO C  | Y  |       | \$35,445.00    | \$60,996.00  | \$53,460.00  | 53        | 80       |
| 85-B-0461 | INDUSTRIAL  | ?  |       | \$30,670.00    | \$60,996.00  | \$53,460.00  | 62        | 85       |
| 85-B-0461 | LYNNWELL A  | Y  |       | \$114,955.00   | \$60,996.00  | \$53,460.00  | 88        | 115      |
| 85-B-0461 | R T BETTEN  | Y  |       | \$97,450.00    | \$60,996.00  | \$53,460.00  | 60        | 82       |
| 85-B-0461 | TC ELECTRI  | Y  |       | \$53,460.00    | \$60,996.00  | \$53,460.00  | -12       | 0        |
| 85-B-0461 | VINCENT J   | Y  |       | \$59,440.00    | \$60,996.00  | \$53,460.00  | -9        | 11       |
| 85-B-0472 | GAFFNY COR  | Y  |       | \$468,400.00   | \$412,105.00 | \$360,000.00 | 14        | 30       |
| 85-B-0472 | K THOMPSON  | Y  |       | \$554,400.00   | \$412,105.00 | \$360,000.00 | 35        | 54       |
| 85-B-0472 | MASTER MEC  | Y  |       | \$360,000.00   | \$412,105.00 | \$360,000.00 | -13       | 0        |
| 85-B-0472 | TECH & ENG  | Y  |       | \$792,000.00   | \$412,105.00 | \$360,000.00 | 92        | 120      |
| 85-B-0476 | FONTAS CON  | Y  |       | \$653,270.00   | \$682,000.00 | \$704,580.00 | -4        | -7       |
| 85-B-0476 | McMULLEN R  | Y  |       | \$754,007.00   | \$682,000.00 | \$704,580.00 | 11        | 7        |
| 85-B-0476 | PENN PERRY  | Y  |       | \$929,166.00   | \$682,000.00 | \$704,580.00 | 45        | 40       |
| 85-B-0476 | PROTON CON  | Y  |       | \$745,450.00   | \$682,000.00 | \$704,580.00 | 9         | 6        |
| 85-B-0476 | RD-MAR CON  | Y  |       | \$631,985.00   | \$682,000.00 | \$704,580.00 | 37        | 32       |
| 85-B-0476 | WIGAND ROD  | Y  |       | \$729,475.00   | \$682,000.00 | \$704,580.00 | 6         | 3        |
| 85-B-0476 | DANLADI CO  | Y  | Y     | \$1,020,300.00 | \$682,000.00 | \$704,580.00 | 60        | 55       |
| 85-B-0476 | Arlington   | Y  | ?     | \$564,747.00   | \$610,875.00 | \$424,000.00 | -8        | 33       |
| 85-B-0476 | King Fische | Y  | ?     | \$424,000.00   | \$610,875.00 | \$424,000.00 | -31       | 0        |
| 85-B-0476 | Monico Ent  | Y  | ?     | \$525,210.00   | \$610,875.00 | \$424,000.00 | -14       | 24       |
| 85-B-0476 | Vadotec C   | Y  | ?     | \$515,983.00   | \$610,875.00 | \$424,000.00 | 1         | 46       |
| 85-B-0545 | ABBE & SVD  | Y  |       | \$451,310.00   | \$275,000.00 | \$196,161.00 | 67        | 135      |
| 85-B-0545 | ABINGTON C  | Y  |       | \$199,431.00   | \$275,000.00 | \$196,161.00 | -28       | 2        |
| 85-B-0545 | BANCROFT C  | ?  |       | \$214,800.00   | \$275,000.00 | \$196,161.00 | -22       | 10       |
| 85-B-0545 | BLAKE COMP  | Y  |       | \$262,783.00   | \$275,000.00 | \$196,161.00 | -5        | 34       |
| 85-B-0545 | CENTRAL ST  | Y  |       | \$288,452.00   | \$275,000.00 | \$196,161.00 | 5         | 47       |
| 85-B-0545 | D L DOULIN  | Y  |       | \$343,269.00   | \$275,000.00 | \$196,161.00 | 27        | 78       |
| 85-B-0545 | EUGENE RIC  | Y  |       | \$277,840.00   | \$275,000.00 | \$196,161.00 | 1         | 42       |
| 85-B-0545 | GAFFNEY CO  | Y  |       | \$291,000.00   | \$275,000.00 | \$196,161.00 | 5         | 48       |
| 85-B-0545 | H V ALLEN   | Y  |       | \$247,000.00   | \$275,000.00 | \$196,161.00 | -11       | 26       |
| 85-B-0545 | HOLDEN REF  | ?  |       | \$257,139.00   | \$275,000.00 | \$196,161.00 | -3        | 36       |
| 85-B-0545 | IND WELDR   | Y  |       | \$207,772.00   | \$275,000.00 | \$196,161.00 | -25       | 6        |
| 85-B-0545 | HERRINACK   | Y  |       | \$322,500.00   | \$275,000.00 | \$196,161.00 | 17        | 64       |
| 85-B-0545 | MIDDLESEX   | Y  |       | \$297,550.00   | \$275,000.00 | \$196,161.00 | -14       | 27       |
| 85-B-0545 | FRAUGHT CO  | Y  |       | \$254,000.00   | \$275,000.00 | \$196,161.00 | 7         | 50       |
| 85-B-0545 | PROCESS EN  | Y  |       | \$298,294.00   | \$275,000.00 | \$196,161.00 | -14       | 21       |
| 85-B-0545 | STRUCTURAL  | Y  |       | \$271,400.00   | \$275,000.00 | \$196,161.00 | -2        | 36       |
| 85-B-0545 | WASHINGTON  | Y  |       | \$196,161.00   | \$275,000.00 | \$196,161.00 | -29       | 0        |
| 85-B-0545 | L A PROFEN  | ?  |       | \$424,575.00   | \$275,000.00 | \$196,161.00 | 54        | 116      |
| 85-B-0619 | GALYON CON  | ?  |       | \$1,054,000.00 | \$794,253.00 | \$936,000.00 | 34        | 8        |
| 85-B-0619 | VALQUEST CO | Y  |       | \$177,500.00   | \$794,253.00 | \$936,000.00 | -78       | -82      |
| 85-B-0755 | ANTRAC BAI  | Y  |       | \$970,845.71   | \$750,000.00 |              | 30        | ERROR    |
| 85-B-0755 | ANNEX RR    | Y  |       | \$375,110.26   | \$750,000.00 |              | 17        | ERROR    |



| CONTRACT# | OFFEROR    | SB | S D B | BID             | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|-----------------|----------------|----------------|-----------|----------|
| 85-B-0755 | CENTRAL EN | Y  |       | \$561,137.00    | \$750,000.00   |                | 28        | ERROR    |
| 85-B-0755 | QUEEN CITY | Y  |       | \$1,041,081.20  | \$750,000.00   |                | 39        | ERROR    |
| 85-E-0755 | F D LONG C | Y  |       | \$559,557.12    | \$750,000.00   |                | 28        | ERROR    |
| 85-B-0755 | RAILROAD S | Y  |       | \$1,055,105.74  | \$750,000.00   |                | 41        | ERROR    |
| 85-B-0755 | SWANSON CO | Y  |       | \$845,432.04    | \$750,000.00   |                | 13        | ERROR    |
| 85-B-1454 | DUTRA/BLAC | Y  |       | \$3,874,336.00  |                | \$3,647,000.00 | ERROR     | 6        |
| 85-B-1454 | SPANDECK I | Y  |       | \$3,647,000.00  |                | \$3,647,000.00 | ERROR     | 0        |
| 85-B-1454 | WESTMONT I | Y  |       | \$3,945,777.00  |                | \$3,647,000.00 | ERROR     | 8        |
| 85-B-1473 | B.L. MONTA |    |       | \$15,000,000.00 |                |                | ERROR     | ERROR    |
| 85-B-1473 | GENERAL CR |    |       | \$13,553,555.00 |                |                | ERROR     | ERROR    |
| 85-B-1473 | INTERNATIO |    |       | \$20,593,301.00 |                |                | ERROR     | ERROR    |
| 85-B-1473 | SPANDECK,  | Y  |       | \$10,457,808.00 |                |                | ERROR     | ERROR    |
| 85-B-1473 | WESTMONT I | Y  |       | \$12,860,000.00 |                |                | ERROR     | ERROR    |
| 85-E-3881 | GALYON CON | ?  |       | \$67,000.00     | \$67,555.00    | \$67,000.00    | -1        | 0        |
| 85-E-3881 | SEARLES CO | ?  |       | \$112,500.00    | \$67,555.00    | \$67,000.00    | 66        | 66       |
| 85-B-4458 | DE LORENCE | Y  |       | \$1,179,660.50  |                |                | ERROR     | ERROR    |
| 85-B-4458 | NU-WAY TRA | ?  |       | \$0.00          |                |                | ERROR     | ERROR    |
| 85-B-4458 | TANTANGELD | Y  |       | \$2,081,415.84  |                |                | ERROR     | ERROR    |
| 85-B-4513 | ACME ELECT | Y  |       | \$717,000.00    | \$860,539.00   | \$640,000.00   | -17       | 12       |
| 85-B-4513 | ALFRED J.  | Y  |       | \$640,000.00    | \$860,539.00   | \$640,000.00   | -26       | 0        |
| 85-B-4513 | BARNES ELE | Y  |       | \$774,000.00    | \$860,539.00   | \$640,000.00   | -10       | 21       |
| 85-B-4513 | CARR & DUF | Y  |       | \$807,787.00    | \$860,539.00   | \$640,000.00   | -6        | 26       |
| 85-B-4513 | HEARTH HTQ | Y  |       | \$723,000.00    | \$860,539.00   | \$640,000.00   | -16       | 13       |
| 85-B-4513 | RANCO COND | Y  |       | \$661,000.00    | \$860,539.00   | \$640,000.00   | -23       | 3        |
| 85-B-4513 | RAY ANGELI | Y  |       | \$684,000.00    | \$860,539.00   | \$640,000.00   | -21       | 7        |
| 85-B-4513 | UNITED WIR | Y  |       | \$787,000.00    | \$860,539.00   | \$640,000.00   | -9        | 23       |
| 85-B-5523 | ALEXANDER  | Y  |       | \$93,000.00     | \$125,000.00   | \$112,411.00   | -22       | -13      |
| 85-B-5523 | FRANK BIAN | ?  |       | \$171,700.00    | \$125,000.00   | \$112,411.00   | 37        | 53       |
| 85-B-5523 | HAMPTON EE | Y  |       | \$127,400.00    | \$125,000.00   | \$112,411.00   | 50        | 67       |
| 85-B-5523 | MAGNUM, IN | Y  |       | \$159,965.00    | \$125,000.00   | \$112,411.00   | 28        | 42       |
| 85-B-5523 | PIONEER CO | Y  |       | \$192,000.00    | \$125,000.00   | \$112,411.00   | 54        | 71       |
| 85-B-5523 | GAUNNT CON | Y  |       | \$172,500.00    | \$172,500.00   | \$112,411.00   | 0         | 53       |
| 85-B-5523 | DANLADI CO | Y  | Y     | \$132,400.00    | \$125,000.00   | \$112,411.00   | 6         | 18       |
| 85-b-5523 | FRANK BIAN | ?  |       | \$171,700.00    | \$125,000.00   | \$112,411.00   | 37        | 53       |
| 85-b-5523 | FARKS & BU | Y  |       | \$112,411.00    | \$125,000.00   | \$112,411.00   | -10       | 0        |
| 85-B-5739 | DELL-PENN  | Y  |       | \$132,415.00    | \$200,000.00   | \$193,000.00   | -34       | -31      |
| 85-B-5739 | MARTELL CO | Y  |       | \$345,400.00    | \$200,000.00   | \$193,000.00   | 73        | 79       |
| 85-B-5739 | DANLADI CO | Y  | Y     | \$264,000.00    | \$200,000.00   | \$193,000.00   | 17        | 21       |
| 85-B-5801 | ANGELD'S C | Y  |       | \$245,000.00    | \$170,121.00   |                | 44        | ERROR    |
| 85-B-5801 | E.J. ELECT |    |       | \$109,000.00    | \$170,121.00   |                | -36       | ERROR    |
| 85-B-5801 | ELECTRICAL | Y  |       | \$125,000.00    | \$170,121.00   |                | -27       | ERROR    |
| 85-E-5801 | EROD INFER | Y  |       | \$61,500.00     | \$170,121.00   |                | -52       | ERROR    |
| 85-B-5801 | GUANNT CON | Y  |       | \$147,700.00    | \$170,121.00   |                | -13       | ERROR    |
| 85-B-5801 | HAMPTON EE | Y  |       | \$144,950.00    | \$170,121.00   |                | -15       | ERROR    |
| 85-B-5801 | JOHN F DO  | Y  |       | \$139,500.00    | \$170,121.00   |                | -18       | ERROR    |
| 85-B-5801 | PIONEER CO | Y  |       | \$155,000.00    | \$170,121.00   |                | -9        | ERROR    |
| 85-B-5801 | RAY ANGELI | Y  |       | \$172,000.00    | \$170,121.00   |                | 1         | ERROR    |
| 85-b-5801 | RAYMOND W  | Y  |       | \$120,000.00    | \$170,121.00   |                | -29       | ERROR    |
| 85-B-6019 | J MCCOYAH  | Y  |       | \$67,963.93     | \$75,500.00    | \$67,963.00    | -10       | 0        |
| 85-B-6019 | MAYER BRDS | Y  |       | \$84,500.00     | \$75,500.00    | \$67,963.00    | 12        | 24       |
| 85-B-6019 | RUFETZ BRD | N  |       | \$73,960.00     | \$75,500.00    | \$67,963.00    | -2        | 9        |
| 85-B-7075 | CSR RAILRD | Y  |       | \$2,164,291.00  | \$1,750,722.00 | \$1,716,000.00 | 24        | 15       |



| CONTRACT# | OFFEROR     | SE | S.D.B | EID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|-------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 85-B-7075 | CENTRAL EN  | Y  |       | \$2,186,142.00 | \$1,750,722.00 | \$1,716,000.00 | 25        | 27       |
| 85-B-7075 | RAILROAD S  | Y  |       | \$1,833,950.00 | \$1,750,722.00 | \$1,716,000.00 | 5         | 7        |
| 85-B-7075 | SWANSON CD  | Y  |       | \$1,716,000.00 | \$1,750,722.00 | \$1,716,000.00 | -2        | 0        |
| 85-B-7097 | STREICHER   | Y  |       | \$146,262.00   | \$133,500.00   |                | 10        | ERROR    |
| 85-B-7097 | LITTLE CON  | Y  |       | \$208,000.00   | \$133,500.00   |                | 56        | ERROR    |
| 85-B-7097 | GULF SOUTH  | Y  |       | \$213,658.00   | \$133,500.00   |                | 60        | ERROR    |
| 85-B-7097 | BATT CONST  | Y  |       | \$168,879.00   | \$133,500.00   |                | 27        | ERROR    |
| 85-B-7097 | SUPERIOR L  | Y  |       | \$149,600.00   | \$133,500.00   |                | 12        | ERROR    |
| 85-B-7097 | LINDSEY'S   | Y  |       | \$139,967.00   | \$133,500.00   |                | 5         | ERROR    |
| 85-B-7097 | NEIDIGH CD  | Y  |       | \$121,731.00   | \$133,500.00   |                | -9        | ERROR    |
| 85-B-7097 | LUBURN CON  | Y  |       | \$248,700.00   | \$133,500.00   |                | 86        | ERROR    |
| 85-B-7097 | T & S CONS  | Y  |       | \$120,989.00   | \$133,500.00   |                | -9        | ERROR    |
| 85-B-7217 | JUDD CONST  | Y  |       | \$395,157.00   | \$290,303.00   |                | 36        | ERROR    |
| 85-B-7217 | SCOID CONS  | Y  |       | \$298,900.00   | \$290,303.00   |                | 3         | ERROR    |
| 85-B-7706 | SUN OHIO C  |    |       | \$73,216.00    | \$82,600.00    | \$58,100.00    | -11       | 26       |
| 85-B-7706 | ELECTRIC E  |    |       | \$69,618.00    | \$82,600.00    | \$58,100.00    | -16       | 20       |
| 85-B-7706 | ac electri  |    |       | \$92,700.00    | \$82,600.00    | \$58,100.00    | 19        | 70       |
| 85-B-7706 | WESTINGHO   |    |       | \$58,100.00    | \$82,600.00    | \$58,100.00    | -30       | 0        |
| 85-B-7706 | ALD-CASS E  |    |       | \$67,500.00    | \$82,600.00    | \$58,100.00    | -18       | 16       |
| 85-B-7706 | UTILITY BY  |    |       | \$78,300.00    | \$82,600.00    | \$58,100.00    | -5        | 35       |
| 85-B-7887 | HEADER CON  | Y  |       | \$63,880.00    | \$516,000.00   |                | -88       | ERROR    |
| 85-B-7887 | JOHN DILKS  | Y  |       | \$48,264.48    | \$51,600.00    |                | -6        | ERROR    |
| 85-B-7887 | ALDRIDGE E  | Y  |       | \$39,300.00    | \$51,600.00    |                | -24       | ERROR    |
| 85-B-7887 | UTILITY D   | Y  |       | \$38,000.00    | \$51,600.00    |                | -26       | ERROR    |
| 85-B-7924 | CONTECK AS  | Y  |       | \$16,210.00    | \$10,370.00    |                | 56        | ERROR    |
| 85-B-7924 | JET STAR N  | Y  |       | \$20,000.00    | \$10,370.00    |                | 93        | ERROR    |
| 85-B-7924 | LEO MONDAY  | Y  |       | \$5,000.00     | \$10,370.00    |                | -42       | ERROR    |
| 85-B-7924 | MERIDIAN C  | Y  |       | \$10,690.00    | \$10,370.00    |                | 3         | ERROR    |
| 85-B-7924 | MIDWEST SE  | ?  |       | \$9,000.00     | \$10,370.00    |                | -13       | ERROR    |
| 85-B-7932 | PAULSEN PA  | Y  |       | \$69,500.00    | \$35,216.00    | \$24,900.00    | 97        | 179      |
| 85-B-7932 | TINY'S CON  | Y  |       | \$24,900.00    | \$35,216.00    | \$24,900.00    | -29       | 0        |
| 85-B-7932 | JACOB & SO  | Y  |       | \$32,493.00    | \$35,216.00    | \$24,900.00    | -8        | 30       |
| 85-B-7932 | GLAKES CON  | Y  |       | \$80,200.00    | \$35,216.00    | \$24,900.00    | 128       | 222      |
| 85-B-7932 | R. A. PETER | Y  |       | \$32,566.00    | \$35,216.00    | \$24,900.00    | -8        | 31       |
| 85-B-7932 | BAREETTA C  |    |       | \$35,000.00    | \$35,216.00    | \$24,900.00    | -1        | 41       |
| 85-B-7932 | MIDWEST SE  |    |       | \$24,995.00    | \$35,216.00    | \$24,900.00    | -29       | 0        |
| 85-B-7938 | NORTH AMER  | Y  |       | \$242,000.00   | \$153,841.00   | \$178,654.00   | 57        | 35       |
| 85-B-7938 | KOETZ BART  | Y  |       | \$282,000.00   | \$153,841.00   | \$178,654.00   | 83        | 58       |
| 85-B-7938 | BERT C. YO  | Y  |       | \$178,654.00   | \$153,841.00   | \$178,654.00   | 15        | 0        |
| 85-B-7938 | DOUGLASS C  | Y  |       | \$198,000.00   | \$153,841.00   | \$178,654.00   | 29        | 11       |
| 85-B-7938 | GEO W. KEN  | Y  |       | \$229,900.00   | \$153,841.00   | \$178,654.00   | 49        | 29       |
| 85-B-7945 | H.V. ALLEN  |    |       | \$152,400.00   | \$143,341.00   | \$112,600.00   | 6         | 35       |
| 85-B-7945 | L. PUGH &   |    |       | \$148,476.00   | \$143,341.00   | \$112,600.00   | 4         | 32       |
| 85-B-7945 | CENTURY AU  |    |       | \$112,600.00   | \$143,341.00   | \$112,600.00   | -21       | 0        |
| 85-B-9031 | GAUNTT CON  | Y  |       | \$148,500.00   | \$179,995.00   | \$127,190.00   | -17       | 17       |
| 85-B-9031 | JACK COHEN  | Y  |       | \$136,000.00   | \$179,995.00   | \$127,190.00   | -24       | 1016     |
| 85-B-9031 | JJ RINK BL  | Y  |       | \$140,000.00   | \$179,995.00   | \$127,190.00   | -22       | 10       |
| 85-B-9031 | JOHN P DON  | Y  |       | \$131,800.00   | \$179,995.00   | \$127,190.00   | -27       | 4        |
| 85-B-9031 | MAGNUM INC  | Y  |       | \$128,000.00   | \$179,995.00   | \$127,190.00   | -29       | 1        |
| 85-B-9031 | MARTELL CD  | Y  |       | \$143,500.00   | \$179,995.00   | \$127,190.00   | -20       | 13       |
| 85-B-9031 | PAN BUILDI  | Y  |       | \$595,000.00   | \$179,995.00   | \$127,190.00   | 231       | 368      |
| 85-B-9031 | SCOBRETT C  | Y  |       | \$178,412.00   | \$179,995.00   | \$127,190.00   | -1        | 40       |





| CONTRACT# | OFFEROR        | SE | S.D B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|----------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 85-B-9031 | STAATS CON     | Y  |       | \$127,190.00   | \$175,995.00   | \$127,190.00   | -29       | 0        |
| 85-B-5031 | UNITED PAR     | Y  |       | \$0.00         | \$179,995.00   | \$127,190.00   | -100      | -100     |
| 85-B-9031 | WILLIAM F      | Y  |       | \$158,556.00   | \$179,995.00   | \$127,190.00   | -12       | 25       |
| 85-B-9031 | RIVERIA CO     | ?  | Y     | \$0.00         | \$179,995.00   | \$127,190.00   | -100      | -100     |
| 85-B-9245 | JUD CONST      | Y  |       | \$49,493.00    | \$31,100.00    | \$49,493.00    | 59        | 0        |
| 85-C-0401 | C & B CONS     | ?  |       | \$118,998.00   |                |                | ERROR     | ERROR    |
| 85-C-0401 | HUGO KEY &     | Y  |       | \$157,647.00   |                |                | ERROR     | ERROR    |
| 85-C-4778 | ACME ELECT     | Y  |       | \$468,515.00   | \$265,717.00   |                | 76        | ERROR    |
| 85-C-4778 | H V. ALLEN     | Y  |       | \$464,000.00   | \$265,717.00   |                | 75        | ERROR    |
| 85-C-4778 | ALFRED J.      |    | Y     | \$389,400.00   | \$265,717.00   |                | 47        | ERROR    |
| 85-C-4778 | M & K ELEC     | Y  |       | \$388,768.00   | \$265,717.00   |                | 46        | ERROR    |
| 85-C-4778 | SO. CALIF      | Y  |       | \$391,000.00   | \$265,717.00   |                | 47        | ERROR    |
| 85-C-4778 | BUCK LINE      | Y  |       | \$524,000.00   | \$265,717.00   |                | 105       | ERROR    |
| 85-C-4778 | RANES CONS     | Y  |       | \$421,600.00   | \$265,717.00   |                | 59        | ERROR    |
| 85-C-4778 | NUCERD ELE     | Y  |       | \$494,000.00   | \$265,717.00   |                | 86        | ERROR    |
| 85-C-4778 | THE LOTT &     | Y  |       | \$629,000.00   | \$265,717.00   |                | 136       | ERROR    |
| 85-C-4778 | CARR & STU     | Y  |       | \$585,875.00   | \$265,717.00   |                | 120       | ERROR    |
| 86-B-0005 | MARTELL CO     | Y  |       | \$289,700.00   | \$79,660.00    | \$0.00         | 201       | ERROR    |
| 86-B-0011 | CARMONE CO     | Y  |       | \$495,427.00   | \$320,000.00   |                | 55        | ERROR    |
| 86-B-0011 | K. THOMAS      | Y  |       | \$504,000.00   | \$320,000.00   |                | 58        | ERROR    |
| 86-B-0022 | A.J. MAGGI     | Y  |       | \$2,549,000.00 | \$2,500,000.00 | \$2,696,000.00 | 18        | 9        |
| 86-B-0022 | ELINGERMAN     | Y  |       | \$2,798,160.00 | \$2,500,000.00 | \$2,696,000.00 | 12        | 4        |
| 86-B-0022 | G. BLUDZI      | Y  |       | \$2,699,000.00 | \$2,500,000.00 | \$2,696,000.00 | 8         | 0        |
| 86-B-0022 | KOVILIC CO     | Y  |       | \$2,555,352.00 | \$2,500,000.00 | \$2,696,000.00 | 18        | 10       |
| 86-B-0025 | MARTELL CO     | Y  |       | \$3,463,000.00 | \$2,091,299.00 | \$2,215,721.00 | 70        | 55       |
| 86-E-0025 | RIPPER INC     | Y  |       | \$2,215,721.00 | \$2,091,299.00 | \$2,215,721.00 | 9         | 0        |
| 86-B-0026 | BIANCHI TR     | N  |       | \$613,000.00   | \$0.00         | \$1,174,777.00 | ERROR     | -48      |
| 86-B-0026 | C. D. A. C. IN | Y  |       | \$1,077,000.00 | \$0.00         | \$1,174,777.00 | ERROR     | -8       |
| 86-B-0026 | INTERN'L       | Y  |       | \$1,616,675.00 | \$0.00         | \$1,174,777.00 | ERROR     | 36       |
| 86-B-0026 | J. F. SEGNA    | Y  |       | \$625,000.00   | \$0.00         | \$1,174,777.00 | ERROR     | -47      |
| 86-B-0026 | DBE TECHN      | N  |       | \$1,460,000.00 | \$0.00         | \$1,174,777.00 | ERROR     | 24       |
| 86-B-0026 | DOONCO CON     | Y  |       | \$1,299,275.00 | \$0.00         | \$1,174,777.00 | ERROR     | 5        |
| 86-B-0029 | ADHE & SVD     | Y  |       | \$467,150.00   | \$229,000.00   | \$129,500.00   | 104       | 261      |
| 86-B-0029 | E. V. AUDIT    | Y  |       | \$359,785.00   | \$229,000.00   | \$129,500.00   | 57        | 178      |
| 86-B-0029 | ENERGY ECD     | Y  |       | \$149,803.00   | \$229,000.00   | \$129,500.00   | -35       | 16       |
| 86-B-0029 | HARCO CORP     | Y  |       | \$364,560.00   | \$229,000.00   | \$129,500.00   | 59        | 182      |
| 86-B-0029 | JJ O'ROURD     | Y  |       | \$373,000.00   | \$229,000.00   | \$129,500.00   | 63        | 189      |
| 86-B-0029 | PCA ENG        | Y  |       | \$129,500.00   | \$229,000.00   | \$129,500.00   | -43       | 0        |
| 86-B-0029 | PRAUGHT CO     | Y  |       | \$377,700.00   | \$229,000.00   | \$129,500.00   | 65        | 192      |
| 86-E-0029 | R. R. HONGLO   | Y  |       | \$228,529.00   | \$229,000.00   | \$129,500.00   | -0        | 75       |
| 86-B-0029 | SINDETON C     | Y  |       | \$217,202.00   | \$229,000.00   | \$129,500.00   | -5        | 68       |
| 86-B-0031 | DRUM CONST     | Y  |       | \$18,913.76    | \$25,000.00    | \$58,608.00    | -24       | -69      |
| 86-B-0031 | JAMES J. A     | Y  |       | \$19,788.31    | \$25,000.00    | \$58,608.00    | -21       | -66      |
| 86-B-0031 | HILLER & S     | Y  |       | \$15,752.63    | \$25,000.00    | \$58,608.00    | -37       | -73      |
| 86-B-0031 | POLARIS CO     | Y  |       | \$18,080.86    | \$25,000.00    | \$58,608.00    | -28       | -69      |
| 86-B-0031 | TONY DEPAU     | Y  |       | \$21,104.80    | \$25,000.00    | \$58,608.00    | -16       | -64      |
| 86-B-0039 | R. P. SANM     | Y  |       | \$693,038.00   | \$665,000.00   |                | 4         | ERROR    |
| 86-B-0039 | MARON CONS     | Y  |       | \$916,641.00   | \$665,000.00   |                | 38        | ERROR    |
| 86-B-0042 | BRIAN CONS     | Y  |       | \$222,000.00   | \$172,800.00   | \$198,500.00   | 28        | 12       |
| 86-B-0042 | C&T ASSOC      | Y  |       | \$247,565.00   | \$172,800.00   | \$198,500.00   | 44        | 25       |
| 86-B-0042 | PGLARDS CO     | Y  |       | \$158,500.00   | \$172,800.00   | \$198,500.00   | 15        | 0        |
| 86-B-0042 | RANCO CONS     | Y  |       | \$149,500.00   | \$172,800.00   | \$198,500.00   | -17       | -28      |



| CONTRACT# | OFFEROR     | SE | S O B | EID             | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|-------------|----|-------|-----------------|----------------|----------------|-----------|----------|
| 86-B-0042 | ROSE-ARACG  | Y  | Y     | \$389,668.00    | \$172,800.00   | \$198,500.00   | 114       | 86       |
| 86-B-0043 | GANNETT CON | Y  |       | \$3,088,000.00  | \$2,900,000.00 | \$3,088,000.00 | 6         | 0        |
| 86-B-0043 | DANLADI CD  | Y  | Y     | \$3,693,000.00  | \$2,900,000.00 | \$3,088,000.00 | 26        | 18       |
| 86-B-0060 | E.S. McCARE | Y  |       | \$470,000.00    | \$235,000.00   | \$470,000.00   | 100       | 0        |
| 86-B-0060 | DAYSPRING   | Y  |       | \$664,540.00    | \$235,000.00   | \$470,000.00   | 127       | 14       |
| 86-B-0061 | ANGELO IAF  | Y  |       | \$3,689,721.75  | \$2,802,000.00 | \$2,934,577.00 | 10        | 5        |
| 86-B-0061 | ARTCO CONS  | Y  |       | \$2,934,577.00  | \$2,802,000.00 | \$2,934,577.00 | 5         | 0        |
| 86-B-0061 | DEFENDABLE  | Y  |       | \$2,473,000.00  | \$2,802,000.00 | \$2,934,577.00 | -12       | -16      |
| 86-B-0061 | DURABLE IN  | Y  |       | \$3,182,000.00  | \$2,802,000.00 | \$2,934,577.00 | 12        | 7        |
| 86-B-0061 | SITE DEVEL  | Y  |       | \$2,982,000.00  | \$2,802,000.00 | \$2,934,577.00 | 5         | 1        |
| 86-B-0061 | TONY ANGEL  | Y  |       | \$3,295,000.00  | \$2,802,000.00 | \$2,934,577.00 | 18        | 12       |
| 86-B-0063 | CHAS E LI   | Y  |       | \$492,000.00    | \$317,614.00   | \$354,037.00   | 55        | 36       |
| 86-B-0063 | ALB ELEC E  | Y  |       | \$354,037.00    | \$317,614.00   | \$354,037.00   | 11        | 0        |
| 86-B-0063 | NW GOLDEN   | Y  |       | \$431,977.00    | \$317,614.00   | \$354,037.00   | 36        | 22       |
| 86-B-0063 | DIAMOND BA  | Y  |       | \$543,000.00    | \$317,614.00   | \$354,037.00   | 73        | 56       |
| 86-B-0063 | E.L. MITCH  | Y  |       | \$429,700.00    | \$317,614.00   | \$354,037.00   | 48        | 32       |
| 86-B-0063 | LASAV ELEC  | Y  |       | \$437,375.00    | \$317,614.00   | \$354,037.00   | 38        | 24       |
| 86-B-0063 | INTERSTATE  | Y  |       | \$480,500.00    | \$317,614.00   | \$354,037.00   | 51        | 36       |
| 86-B-0088 | STRUCTURAL  | Y  |       | \$543,543.00    | \$1,104,970.00 |                | -24       | ERROR    |
| 86-B-0088 | SCUTA BLAC  | Y  |       | \$1,641,600.00  | \$1,104,970.00 |                | 49        | ERROR    |
| 86-B-0088 | T J MADDIN  | Y  |       | \$715,000.00    | \$1,104,970.00 |                | -35       | ERROR    |
| 86-B-0088 | SANTARO IN  | Y  |       | \$1,285,673.00  | \$1,104,970.00 |                | 16        | ERROR    |
| 86-B-0088 | J PATRICIO  | ?  |       | \$1,390,000.00  | \$1,104,970.00 |                | 26        | ERROR    |
| 86-B-0088 | B S McODPE  | Y  |       | \$1,157,694.00  | \$1,104,970.00 |                | 5         | ERROR    |
| 86-B-0088 | STRUCTURAL  | Y  |       | \$843,543.00    | \$1,104,970.00 |                | -24       | ERROR    |
| 86-B-0088 | OCUTO BLK   | Y  |       | \$1,641,600.00  | \$1,104,970.00 |                | 49        | ERROR    |
| 86-B-0088 | T J MADDEN  | Y  |       | \$715,000.00    | \$1,104,970.00 |                | -35       | ERROR    |
| 86-B-0088 | SANTARO IN  | Y  |       | \$1,285,673.00  | \$1,104,970.00 |                | 16        | ERROR    |
| 86-B-0088 | J TALAFICO  | ?  |       | \$1,390,000.00  | \$1,104,970.00 |                | 26        | ERROR    |
| 86-B-0088 | B S McCARE  | Y  |       | \$1,157,694.00  | \$1,104,970.00 |                | 5         | ERROR    |
| 86-B-0096 | DOMINIC P.  | Y  |       | \$221,779.00    | \$217,330.00   | \$221,779.00   | 2         | 0        |
| 86-B-0096 | IVERSON CD  | Y  |       | \$258,564.00    | \$217,330.00   | \$221,779.00   | 19        | 17       |
| 86-B-0096 | McLANE CON  | Y  |       | \$269,273.00    | \$217,330.00   | \$221,779.00   | 24        | 21       |
| 86-B-0097 | A F. LUSI   | Y  |       | \$9,344,000.00  | \$7,400,000.00 | \$8,100,660.00 | 26        | 15       |
| 86-B-0097 | CATAMOUNT   | N  |       | \$8,800,000.00  | \$7,400,000.00 | \$8,100,660.00 | 19        | 9        |
| 86-B-0097 | GILBANE BL  | N  |       | \$8,265,540.00  | \$7,400,000.00 | \$8,100,660.00 | 12        | 2        |
| 86-B-0097 | TRATORS     | N  |       | \$10,695,000.00 | \$7,400,000.00 | \$8,100,660.00 | 36        | 25       |
| 86-B-0107 | INSTRUMENT  | N  |       | \$778,885.00    | \$750,000.00   | \$778,885.00   | 4         | 0        |
| 86-B-0107 | MOORE PROD  | N  |       | \$731,661.00    | \$750,000.00   | \$778,885.00   | -2        | -6       |
| 86-B-0107 | WESTCOTT E  | Y  |       | \$948,450.00    | \$750,000.00   | \$778,885.00   | 26        | 22       |
| 86-B-0131 | BANDROFT C  | Y  |       | \$51,250.00     | \$37,000.00    |                | 39        | ERROR    |
| 86-B-0131 | BOSHEN EXC  | Y  |       | \$73,000.00     | \$37,000.00    |                | 97        | ERROR    |
| 86-B-0131 | GRAND BANK  | Y  |       | \$156,000.00    | \$37,000.00    |                | 322       | ERROR    |
| 86-B-0131 | MYMAN & SI  | Y  |       | \$48,770.00     | \$37,000.00    |                | 35        | ERROR    |
| 86-B-0134 | FIFINS SYS  | Y  |       | \$115,318.00    | \$144,966.00   | \$115,318.00   | -20       | 0        |
| 86-B-0134 | D. DIXON D  | Y  |       | \$143,900.00    | \$144,966.00   | \$115,318.00   | -1        | 25       |
| 86-B-0134 | HART ENG C  | Y  |       | \$147,600.00    | \$144,966.00   | \$115,318.00   | 2         | 28       |
| 86-B-0134 | EMERCO COR  | Y  |       | \$175,594.00    | \$144,966.00   | \$115,318.00   | 22        | 53       |
| 86-B-0134 | PROCESS EN  | Y  |       | \$178,774.00    | \$144,966.00   | \$115,318.00   | 23        | 55       |
| 86-B-0134 | R. J. SANDE | Y  |       | \$192,348.00    | \$144,966.00   | \$115,318.00   | 33        | 67       |
| 86-B-0134 | PROMET MAR  | Y  |       | \$214,830.00    | \$144,966.00   | \$115,318.00   | 48        | 86       |
| 86-B-0138 | RANCO CONS  | Y  |       | \$286,200.00    | \$254,900.00   |                | -7        | ERROR    |



| CONTRACT# | OFFEROR     | SR | S  | D | E | EID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|-------------|----|----|---|---|----------------|----------------|----------------|-----------|----------|
| 86-B-0188 | GROVE ROOF  | Y  |    |   |   | \$654,540.00   | \$254,900.00   |                | 157       | ERROR    |
| 86-B-0188 | MEDR FIPIN  | Y  |    |   |   | \$314,200.00   | \$254,900.00   |                | 23        | ERROR    |
| 86-B-0188 | THOMAS P    | Y  |    |   |   | \$323,780.00   | \$254,900.00   |                | 27        | ERROR    |
| 86-B-0189 | GIULIANI CD | Y  |    |   |   | \$227,779.00   | \$254,900.00   |                | -11       | ERROR    |
| 86-B-0188 | DANLADI CD  | Y  |    |   |   | \$373,000.00   | \$254,900.00   |                | 45        | ERROR    |
| 86-B-0188 | PNM CONST   | Y  |    |   |   | \$266,600.00   | \$254,900.00   |                | -7        | ERROR    |
| 86-B-0188 | PARYS L EU  | Y  |    |   |   | \$204,211.00   | \$254,900.00   |                | -20       | ERROR    |
| 86-B-0188 | GIANNA GEP  | Y  |    |   |   | \$239,000.00   | \$254,900.00   |                | -6        | ERROR    |
| 86-B-0188 | SCARRETT C  | Y  |    |   |   | \$218,025.00   | \$254,900.00   |                | -14       | ERROR    |
| 86-B-0156 | Pressure C  | Y  |    |   |   | \$4,082,271.00 | \$2,167,633.00 | \$2,582,345.00 | 87        | 57       |
| 86-B-0156 | Die Hansen  | Y  |    |   |   | \$4,004,695.50 | \$2,267,633.00 | \$2,582,345.00 | 77        | 55       |
| 86-B-0300 | AEINGTON C  | Y  |    |   |   | \$470,000.00   | \$424,710.00   | \$449,000.00   | 11        | 5        |
| 86-E-0300 | BALVOC INC  | ?  |    |   |   | \$465,000.00   | \$424,710.00   | \$449,000.00   | 9         | 4        |
| 86-B-0300 | GAFFNY COF  | Y  |    |   |   | \$499,000.00   | \$424,710.00   | \$449,000.00   | 17        | 11       |
| 86-E-0300 | HOLDEN RDB  | Y  |    |   |   | \$449,000.00   | \$424,710.00   | \$449,000.00   | 6         | 0        |
| 86-B-0300 | JANUS INC   | Y  |    |   |   | \$521,000.00   | \$424,710.00   | \$449,000.00   | 23        | 16       |
| 86-B-0300 | FRAUGHT CD  | Y  |    |   |   | \$580,000.00   | \$424,710.00   | \$449,000.00   | 37        | 29       |
| 86-B-0300 | PROCESS EN  | Y  |    |   |   | \$525,480.00   | \$424,710.00   | \$449,000.00   | 25        | 13       |
| 86-B-0307 | MID MAINE   | Y  |    |   |   | \$379,000.00   | \$190,467.00   | \$355,700.00   | 99        | 7        |
| 86-B-0307 | WYMAN & SI  | Y  |    |   |   | \$385,700.00   | \$190,467.00   | \$355,700.00   | 87        | 0        |
| 86-B-0307 | NO BIDS RE  | -  | -  |   |   | \$0.00         | \$0.00         | \$0.00         | 0         | 0        |
| 86-B-0309 | A F WHITAC  | Y  |    |   |   | \$314,200.00   | \$182,000.00   |                | 73        | ERROR    |
| 86-B-0309 | D L FOLIN   | Y  |    |   |   | \$325,500.00   | \$182,000.00   |                | 79        | ERROR    |
| 86-B-0309 | -----       | Y  | -- |   |   | \$0.00         | \$0.00         | \$0.00         | 0         | 0        |
| 86-B-0310 | CONSOLIDAT  | ?  |    |   |   | \$625,268.00   | \$515,555.00   | \$565,089.00   | 21        | 11       |
| 86-B-0310 | GRIFCO INC  | Y  |    |   |   | \$218,359.50   | \$515,555.00   | \$565,089.00   | 20        | 9        |
| 86-B-0310 | JOH CONST   | Y  |    |   |   | \$599,089.00   | \$515,555.00   | \$565,089.00   | 16        | 6        |
| 86-E-0314 | MAREL SOBS  | Y  |    |   |   | \$47,640.00    | \$32,441.00    | \$47,640.00    | 47        | 0        |
| 86-B-0314 | A J BRUND   | Y  |    |   |   | \$54,315.00    | \$32,441.00    | \$47,640.00    | 93        | 35       |
| 86-B-0315 | BAY WEST E  | Y  |    |   |   | \$185,000.00   | \$157,850.00   | \$157,850.00   | 18        | 17       |
| 86-B-0315 | D E WILLIA  | Y  |    |   |   | \$181,600.00   | \$157,850.00   | \$157,850.00   | 21        | 20       |
| 86-B-0315 | ENERTECH E  | Y  |    |   |   | \$246,091.00   | \$157,850.00   | \$157,850.00   | 57        | 55       |
| 86-B-0315 | HARRINGTON  | Y  |    |   |   | \$158,922.00   | \$157,850.00   | \$157,850.00   | 2         | 1        |
| 86-B-0315 | RESERVE EL  | Y  |    |   |   | \$157,850.00   | \$157,850.00   | \$157,850.00   | 1         | 0        |
| 86-B-0315 | LAKE CD     | Y  |    |   |   | \$1,627,000.00 | \$1,077,000.00 | \$577,505.00   | 51        | 182      |
| 86-B-0316 | MELROSE MT  | Y  |    |   |   | \$1,216,065.00 | \$1,077,000.00 | \$577,505.00   | 13        | 111      |
| 86-B-0316 | MONTARDS C  | Y  |    |   |   | \$1,605,175.00 | \$1,077,000.00 | \$577,505.00   | 68        | 213      |
| 86-B-0316 | SHANEK & I  | Y  |    |   |   | \$2,072,327.00 | \$1,077,000.00 | \$577,505.00   | 92        | 253      |
| 86-B-0315 | THOMAS p C  | Y  |    |   |   | \$1,382,901.00 | \$1,077,000.00 | \$577,505.00   | 24        | 131      |
| 86-B-0316 | DANLADI CD  | Y  | Y  |   |   | \$1,650,066.82 | \$1,077,000.00 | \$577,505.00   | 53        | 186      |
| 86-B-0402 | A.F. WHITA  | Y  |    |   |   | \$348,677.00   | \$190,000.00   |                | 31        | ERROR    |
| 86-B-0402 | COLVELL CD  | Y  |    |   |   | \$242,664.00   | \$190,000.00   |                | 28        | ERROR    |
| 86-B-0402 | CONSOLIDAT  | Y  |    |   |   | \$284,990.00   | \$190,000.00   |                | 50        | ERROR    |
| 86-B-0402 | E.L. SHEA   | Y  |    |   |   | \$211,707.00   | \$190,000.00   |                | 11        | ERROR    |
| 86-E-0402 | NORTHERN M  | Y  |    |   |   | \$228,908.00   | \$190,000.00   |                | 20        | ERROR    |
| 86-B-0402 | OVELLET CD  | Y  |    |   |   | \$224,359.00   | \$190,000.00   |                | 18        | ERROR    |
| 86-B-0402 | FENTA CORP  | Y  |    |   |   | \$299,120.00   | \$190,000.00   |                | 52        | ERROR    |
| 86-B-0402 |             | Y  |    |   |   |                | \$0.00         |                | ERROR     | ERROR    |
| 86-E-0402 | MARTELL CD  | Y  |    |   |   | \$89,300.00    | \$93,114.00    |                | -9        | ERROR    |
| 86-B-0408 | MONTARDS C  | Y  |    |   |   | \$71,200.00    | \$93,114.00    |                | -27       | ERROR    |
| 86-B-0408 | PANDITTA E  | Y  |    |   |   | \$89,000.00    | \$93,114.00    |                | -9        | ERROR    |
| 86-B-0405 | CARROLL BL  | Y  |    |   |   | \$73,700.00    | \$91,625.00    | \$78,700.00    | -4        | 0        |



| CONTRACT# | OFFEROR      | SB | S B B | SID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|--------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 86-B-0409 | DEWALT IN    | Y  |       | \$93,500.00    | \$81,688.00    | \$78,700.00    | 14        | 19       |
| 86-B-0409 | LYBURN CON   | Y  |       | \$137,100.00   | \$81,688.00    | \$78,700.00    | 68        | 74       |
| 86-B-0409 | METRO-WIND   | Y  |       | \$90,612.00    | \$81,688.00    | \$78,700.00    | 11        | 15       |
| 86-B-0414 | ARTHUR SCD   | -- |       | \$151,300.00   | \$155,300.00   | \$115,730.00   | -3        | 31       |
| 86-B-0414 | CITY FENCE   | Y  |       | \$192,683.00   | \$155,300.00   | \$115,730.00   | 24        | 26       |
| 86-B-0414 | EXPERT FEM   | -- |       | \$115,730.00   | \$155,300.00   | \$115,730.00   | -25       | 0        |
| 86-B-0415 | CIALDEA EL   | Y  |       | \$255,000.00   | \$198,784.00   | \$232,000.00   | 35        | 10       |
| 86-B-0415 | FRITZ CONE   | Y  |       | \$240,320.00   | \$198,784.00   | \$232,000.00   | 27        | 4        |
| 86-B-0415 | HAMMITT CO   | Y  |       | \$232,000.00   | \$198,784.00   | \$232,000.00   | 29        | 0        |
| 86-B-0415 | HARTFORD C   | Y  |       | \$247,747.00   | \$198,784.00   | \$232,000.00   | 31        | 7        |
| 86-B-0417 | DEBIGNY RCD  | Y  |       | \$234,000.00   | \$170,000.00   | \$174,444.00   | 38        | 34       |
| 86-B-0417 | DIRWOOD CO   | Y  |       | \$174,444.00   | \$170,000.00   | \$174,444.00   | 3         | 0        |
| 86-B-0417 | SHAW CONST   | Y  |       | \$196,500.00   | \$170,000.00   | \$174,444.00   | 16        | 13       |
| 86-B-0417 | TITAN ROOF   | Y  |       | \$158,000.00   | \$170,000.00   | \$174,444.00   | 16        | 14       |
| 86-B-0417 | -----        | -- | --    | \$0.00         | \$0.00         | \$174,444.00   | 0         | 0        |
| 86-B-0418 | GAFFNEY CO   | Y  |       | \$214,650.00   | \$177,930.00   | \$223,500.00   | 77        | 41       |
| 86-B-0418 | HAMMITT CO   | Y  |       | \$223,500.00   | \$177,930.00   | \$223,500.00   | 26        | 0        |
| 86-B-0419 | CARRONE CO   | Y  |       | \$97,639.00    | \$100,432.00   | \$97,639.00    | -3        | 0        |
| 86-B-0419 | DI ROCCA C   | Y  |       | \$119,500.00   | \$100,432.00   | \$97,639.00    | 19        | 22       |
| 86-B-0419 | ROCKWELL I   | Y  |       | \$209,995.00   | \$100,432.00   | \$97,639.00    | 109       | 115      |
| 86-B-0421 | Narragansett | Y  | N     | \$56,685.00    | \$52,900.00    | \$56,685.00    | 7         | 0        |
| 86-B-0422 | BRITELITE    | Y  |       | \$112,700.00   | \$154,496.00   | \$57,700.00    | -77       | 95       |
| 86-B-0422 | SAL ELECTR   | Y  |       | \$124,000.00   | \$154,496.00   | \$57,700.00    | -20       | 115      |
| 86-B-0422 | J & SALAS    | Y  |       | \$57,700.00    | \$154,496.00   | \$57,700.00    | -63       | 0        |
| 86-B-0422 | LADUCA ASS   | Y  |       | \$86,960.00    | \$154,496.00   | \$57,700.00    | -44       | 51       |
| 86-B-0422 | TFI INC      | Y  |       | \$108,095.00   | \$154,496.00   | \$57,700.00    | -30       | 87       |
| 86-B-0424 | CITY VENTU   | Y  |       | \$159,320.00   | \$114,820.00   |                | 35        | ERROR    |
| 86-B-0424 | POLENIA CO   | Y  |       | \$108,098.00   | \$114,820.00   |                | 12        | ERROR    |
| 86-B-0425 | EDWARD MIT   |    |       | \$1,136,054.00 | \$345,000.00   |                | 20        | ERROR    |
| 86-B-0425 | FONTAS CON   |    |       | \$364,785.00   | \$345,000.00   |                | -30       | ERROR    |
| 86-B-0425 | PRESBURG C   | Y  |       | \$344,714.00   | \$345,000.00   |                | -0        | ERROR    |
| 86-B-0430 | ELCOR ELEC   | Y  |       | \$24,698.00    | \$17,776.00    |                | 38        | ERROR    |
| 86-B-0430 | JACK COHEN   | ?  |       | \$16,374.00    | \$17,776.00    |                | 3         | ERROR    |
| 86-B-0430 | JDS OCTUMA   | Y  |       | \$22,350.00    | \$17,776.00    |                | 26        | ERROR    |
| 86-B-0430 | PENN-ARGUS   | Y  |       | \$22,153.00    | \$17,776.00    |                | 25        | ERROR    |
| 86-B-0430 | SAFFORD      | Y  |       | \$24,090.00    | \$17,776.00    |                | 36        | ERROR    |
| 86-B-0433 | PEET-TEMP    | Y  |       | \$91,500.00    | \$112,632.00   | \$91,500.00    | -19       | 0        |
| 86-B-0433 | BRITE LITE   | Y  |       | \$92,700.00    | \$112,632.00   | \$91,500.00    | -18       | 1        |
| 86-B-0433 | GRANTON ME   | Y  |       | \$96,950.00    | \$112,632.00   | \$91,500.00    | -13       | 7        |
| 86-B-0433 | NJP A/C &    | Y  |       | \$98,000.00    | \$112,632.00   | \$91,500.00    | -13       | 7        |
| 86-B-0442 | ABIELE CON   | Y  |       | \$2,112,770.00 | \$1,409,169.00 | \$1,764,000.00 | 60        | 20       |
| 86-B-0442 | ELDRR CONT   | Y  |       | \$1,976,000.00 | \$1,409,169.00 | \$1,764,000.00 | 40        | 12       |
| 86-B-0442 | EXPERT FLE   | Y  |       | \$1,689,363.00 | \$1,409,169.00 | \$1,764,000.00 | 20        | -4       |
| 86-B-0442 | G & R FLEC   | Y  |       | \$1,964,000.00 | \$1,409,169.00 | \$1,764,000.00 | 35        | 11       |
| 86-B-0442 | J & SALAS    | Y  |       | \$1,977,700.00 | \$1,409,169.00 | \$1,764,000.00 | 40        | 12       |
| 86-B-0442 | VALQUEST C   | Y  |       | \$1,772,000.00 | \$1,409,169.00 | \$1,764,000.00 | 26        | 0        |
| 86-B-0445 | ADKF FIRE    | Y  |       | \$23,680.00    | \$52,443.00    | \$23,680.00    | -55       | 0        |
| 86-B-0447 | AMERICAN P   | -- |       | \$54,055.00    | \$56,890.00    | \$54,055.00    | -5        | 0        |
| 86-B-0447 | PANZITTA E   | -- |       | \$73,000.00    | \$56,890.00    | \$54,055.00    | 29        | 36       |
| 86-B-0456 | E. K. AUDET  | Y  |       | \$220,635.00   | \$178,395.00   | \$126,300.00   | 24        | 75       |
| 86-B-0456 | E. K. AUDET  | Y  |       | \$220,635.00   | \$178,395.00   | \$126,300.00   | 24        | 75       |
| 86-B-0456 | LYNNWELL R   | Y  |       | \$195,320.00   | \$178,395.00   | \$126,300.00   | 9         | 56       |





| CONTRACT# | OFFEROR     | SS | S.D | E | BID          | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF AVE |
|-----------|-------------|----|-----|---|--------------|--------------|--------------|-----------|----------|
| 86-B-0456 | LYNNWELL A  | Y  |     |   | \$155,800.00 | \$178,355.00 | \$126,300.00 | 9         | 55       |
| 86-B-0456 | MOHAWK VAL  | Y  |     |   | \$126,300.00 | \$178,355.00 | \$126,300.00 | -29       | 0        |
| 86-B-0456 | THE RYAN C  | Y  |     |   | \$138,800.00 | \$178,355.00 | \$126,300.00 | -22       | 10       |
| 86-B-0456 | THE RYAN C  | Y  |     |   | \$138,800.00 | \$178,355.00 | \$126,300.00 | -22       | 10       |
| 86-B-0464 | EDM. EASTER | Y  |     |   | \$136,650.00 | \$146,000.00 | \$136,650.00 | -6        | 0        |
| 86-B-0464 | GEO. MOHRE  | Y  |     |   | \$132,220.00 | \$146,000.00 | \$136,650.00 | 11        | 19       |
| 86-B-0464 | MAPAPANIS   | Y  |     |   | \$156,500.00 | \$146,000.00 | \$136,650.00 | 9         | 16       |
| 86-B-0464 | MCALLISTER  | Y  |     |   | \$168,000.00 | \$146,000.00 | \$136,650.00 | 15        | 23       |
| 86-B-0464 | PIONEER CO  | Y  |     |   | \$142,000.00 | \$146,000.00 | \$136,650.00 | -3        | 4        |
| 86-B-0466 | COTTMAN ME  | Y  |     |   | \$128,100.00 | \$120,066.00 | \$128,100.00 | 7         | 0        |
| 86-B-0466 | GAUDELLI E  | Y  |     |   | \$128,900.00 | \$120,066.00 | \$128,100.00 | 7         | 1        |
| 86-B-0466 | KOHLER BRG  | Y  |     |   | \$137,000.00 | \$120,066.00 | \$128,100.00 | 14        | 7        |
| 86-B-0466 | SHELLY'S D  | Y  |     |   | \$168,000.00 | \$120,066.00 | \$128,100.00 | 40        | 31       |
| 86-B-0467 | EPIC CONTR  | Y  |     |   | \$368,100.00 | \$192,216.00 |              | 92        | ERROR    |
| 86-B-0467 | EPIC CONTR  | Y  |     |   | \$368,100.00 | \$192,216.00 |              | 92        | ERROR    |
| 86-B-0471 | R J BELMOM  | Y  |     |   | \$296,605.00 | \$185,145.00 |              | 114       | ERROR    |
| 86-B-0471 | ROBERT COO  | Y  |     |   | \$227,600.00 | \$185,145.00 |              | 23        | ERROR    |
| 86-B-0473 | SHERRY CON  | Y  |     |   | \$50,400.00  | \$84,500.00  |              | -40       | ERROR    |
| 86-B-0475 | M E. SEALC  | Y  |     |   | \$77,218.80  | \$84,500.00  |              | -9        | ERROR    |
| 86-B-0478 | LYDURATIONS | Y  |     |   | \$126,000.00 | \$80,000.00  | \$103,408.00 | 60        | 24       |
| 86-B-0478 | EMERALD CO  | Y  |     |   | \$116,800.00 | \$80,000.00  | \$103,408.00 | 48        | 15       |
| 86-B-0478 | ROBINSON E  | Y  |     |   | \$131,636.00 | \$80,000.00  | \$103,408.00 | 65        | 27       |
| 86-B-0478 | HAMMITT CO  | Y  |     |   | \$144,000.00 | \$80,000.00  | \$103,408.00 | 80        | 39       |
| 86-B-0478 | WEBB CONST  | Y  |     |   | \$118,218.00 | \$80,000.00  | \$103,408.00 | 49        | 16       |
| 86-B-0478 | FRITZ CONB  | Y  |     |   | \$102,408.00 | \$80,000.00  | \$103,408.00 | 29        | 0        |
| 86-B-0479 | SPENMAN CO  | Y  |     |   | \$123,400.00 | \$65,723.00  |              | 88        | ERROR    |
| 86-B-0480 | AMITY FAMI  | Y  |     |   | \$35,250.00  | \$33,255.00  | \$49,360.00  | 168       | 81       |
| 86-B-0480 | CHATTERJEE  | Y  |     |   | \$58,000.00  | \$33,255.00  | \$49,360.00  | 74        | 18       |
| 86-B-0480 | CORPOLA PA  | Y  |     |   | \$43,960.00  | \$33,255.00  | \$49,360.00  | 48        | 0        |
| 86-B-0480 | METRO CONT  | Y  |     |   | \$76,188.00  | \$33,255.00  | \$49,360.00  | 129       | 54       |
| 86-B-0481 | COTTMAN ME  | Y  |     |   | \$185,100.00 | \$175,000.00 | \$102,484.00 | 8         | 65       |
| 86-B-0481 | DEL VAL ME  | Y  |     |   | \$175,623.60 | \$175,000.00 | \$102,484.00 | 3         | 76       |
| 86-B-0481 | FARINELLI   | Y  |     |   | \$275,970.00 | \$175,000.00 | \$102,484.00 | 58        | 169      |
| 86-B-0481 | NORTH AMER  | Y  |     |   | \$246,000.00 | \$175,000.00 | \$102,484.00 | 41        | 140      |
| 86-B-0481 | SCHAEFFER   | Y  |     |   | \$102,484.00 | \$175,000.00 | \$102,484.00 | -41       | 0        |
| 86-B-0484 | M FRANK HI  | Y  |     |   | \$149,149.00 | \$283,300.00 |              | -47       | ERROR    |
| 86-B-0484 | US FLOORS   | Y  |     |   | \$214,444.00 | \$283,300.00 |              | -24       | ERROR    |
| 86-B-0484 | CONTRACT F  | Y  |     |   | \$232,344.45 | \$283,300.00 |              | -18       | ERROR    |
| 86-B-0484 | BASEMAN BR  | Y  |     |   | \$233,340.00 | \$283,300.00 |              | -18       | ERROR    |
| 86-B-0484 | HAYWOOD BE  | Y  |     |   | \$283,925.00 | \$283,300.00 |              | 2         | ERROR    |
| 86-B-0484 | MARON CONB  | Y  |     |   | \$307,750.00 | \$283,300.00 |              | 9         | ERROR    |
| 86-B-0484 | CRIS CONTR  | Y  |     |   | \$347,840.00 | \$283,300.00 |              | 23        | ERROR    |
| 86-B-0484 | GORIC ELDB  | Y  |     |   | \$364,000.00 | \$283,300.00 |              | 25        | ERROR    |
| 86-B-0488 | A P WHITAK  | Y  |     |   | \$350,000.00 | \$181,052.00 |              | 93        | ERROR    |
| 86-B-0488 | OLD TOWN A  | Y  |     |   | \$274,975.00 | \$181,052.00 |              | 52        | ERROR    |
| 86-B-0493 | MAGNUM INC  | N  |     |   | \$166,320.00 | \$172,132.00 | \$166,320.00 | -3        | 0        |
| 86-B-0493 | ROBERT RIP  | Y  |     |   | \$353,721.00 | \$155,600.00 | \$176,000.00 | 147       | 118      |
| 86-B-0493 | R L MYLET   | Y  |     |   | \$183,000.00 | \$155,600.00 | \$176,000.00 | 21        | 7        |
| 86-B-0493 | BOENET INC  | Y  |     |   | \$175,000.00 | \$155,600.00 | \$176,000.00 | 13        | 0        |
| 86-B-0493 | PANCITTA E  | Y  |     |   | \$155,000.00 | \$155,600.00 | \$176,000.00 | 36        | 11       |
| 86-B-0493 | ERDURIC EX  | Y  |     |   | \$248,800.00 | \$155,600.00 | \$176,000.00 | 57        | 39       |
| 86-B-0493 | S G MASTRI  | Y  |     |   | \$210,800.00 | \$155,600.00 | \$176,000.00 | 35        | 20       |



| CONTRACT# | OFFEROR    | ES | ESTD | EID            | GOV'T EST    | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|------|----------------|--------------|----------------|-----------|----------|
| 86-B-0485 | YERK ELEVA | 0  |      | \$748,219.00   | \$554,000.00 | \$748,219.00   | 35        | 0        |
| 86-B-0486 | ART TRAND  | Y  |      | \$85,435.00    | \$51,149.00  | \$85,435.00    | -31       | 0        |
| 86-B-0486 | CESSOR DEF | Y  |      | \$24,500.00    | \$51,149.00  | \$85,435.00    | -52       | -31      |
| 86-B-0486 | DAVID J RA | Y  |      | \$61,921.00    | \$51,149.00  | \$85,435.00    | 28        | 84       |
| 86-B-0486 | ENERGY ENG | ?  |      | \$0.00         | \$51,149.00  | \$85,435.00    | -100      | -100     |
| 86-B-0486 | LYBURN CON | Y  |      | \$88,000.00    | \$51,149.00  | \$85,435.00    | 72        | 148      |
| 86-B-0486 | W R CASTIL | Y  |      | \$40,800.00    | \$51,149.00  | \$85,435.00    | -20       | 15       |
| 86-B-0500 | BEV MEHRER | Y  |      | \$76,757.00    | \$82,000.00  | \$66,450.00    | -6        | 16       |
| 86-B-0500 | GREAT AMEP | Y  |      | \$135,711.00   | \$82,000.00  | \$66,450.00    | 66        | 104      |
| 86-B-0500 | GROVE ROOF | Y  |      | \$66,450.00    | \$82,000.00  | \$66,450.00    | -19       | 0        |
| 86-B-0500 | PENN PERRY | Y  |      | \$74,222.00    | \$82,000.00  | \$66,450.00    | -9        | 12       |
| 86-B-0500 | PIONEER CD | Y  |      | \$81,000.00    | \$82,000.00  | \$66,450.00    | -1        | 22       |
| 86-B-0509 | BELL'S ROO | Y  |      | \$206,245.00   | \$249,815.00 | \$206,245.00   | -17       | 0        |
| 86-B-0509 | D & S ROOF | Y  |      | \$247,458.00   | \$249,815.00 | \$206,245.00   | -1        | 20       |
| 86-B-0509 | JESSIE CON | Y  |      | \$141,875.00   | \$249,815.00 | \$206,245.00   | -43       | -31      |
| 86-B-0510 | BELL'S ROO | Y  |      | \$206,925.00   | \$250,935.00 | \$206,925.00   | -18       | 0        |
| 86-B-0510 | D & S ROOF | Y  |      | \$240,825.00   | \$250,935.00 | \$206,925.00   | -4        | 16       |
| 86-B-0510 | ENDLESS GU | Y  |      | \$277,000.00   | \$250,935.00 | \$206,925.00   | 10        | 34       |
| 86-B-0510 | JESSIE CON | Y  |      | \$141,875.00   | \$250,935.00 | \$206,925.00   | -43       | -31      |
| 86-B-0510 | WEISMAN RO | Y  |      | \$501,919.00   | \$250,935.00 | \$206,925.00   | 100       | 142      |
| 86-B-0511 | BELLS ROOF | Y  |      | \$119,130.00   | \$140,900.00 | \$119,130.00   | -15       | 0        |
| 86-B-0511 | D & S ROOF | Y  |      | \$147,691.00   | \$140,900.00 | \$119,130.00   | 5         | 24       |
| 86-B-0511 | ENDLESS GU | Y  |      | \$181,000.00   | \$140,900.00 | \$119,130.00   | 36        | 50       |
| 86-B-0511 | JESSIE CON | Y  |      | \$67,525.00    | \$140,900.00 | \$119,130.00   | -38       | -37      |
| 86-B-0512 | BELL'S ROO | Y  |      | \$118,370.00   | \$140,900.00 | \$118,370.00   | -16       | 0        |
| 86-B-0512 | D & S ROOF | Y  |      | \$145,237.00   | \$140,900.00 | \$118,370.00   | 3         | 29       |
| 86-B-0512 | JESSIE CON | Y  |      | \$97,526.00    | \$140,900.00 | \$118,370.00   | -38       | -26      |
| 86-B-0513 | D&S ROOFIN | Y  |      | \$378,507.00   | \$224,759.00 | \$444,285.00   | 157       | 30       |
| 86-B-0513 | H. WEISMAN | Y  |      | \$444,285.00   | \$224,759.00 | \$444,285.00   | 98        | 0        |
| 86-B-0515 | E STREMEER | Y  |      | \$1,338,886.00 | \$538,400.00 | \$1,338,886.00 | 189       | 16       |
| 86-B-0515 | DAYFIELD C | Y  |      | \$1,338,886.00 | \$538,400.00 | \$1,338,886.00 | 149       | 0        |
| 86-B-0515 | CERTIFIED  | Y  |      | \$1,573,000.00 | \$538,400.00 | \$1,338,886.00 | 248       | 40       |
| 86-B-0515 | ILICE CON3 | Y  |      | \$1,914,560.00 | \$538,400.00 | \$1,338,886.00 | 297       | 36       |
| 86-B-0517 | BERNARD R  | Y  |      | \$67,651.00    | \$70,058.00  |                | -3        | ERROR    |
| 86-B-0517 | ROBERT R   | Y  |      | \$83,200.00    | \$70,058.00  |                | 18        | ERROR    |
| 86-B-0519 | D'STRENS C | Y  |      | \$59,000.00    | \$47,500.00  | \$59,000.00    | 23        | 0        |
| 86-B-0519 | DEL-VAL ME | Y  |      | \$68,933.00    | \$47,500.00  | \$59,000.00    | 38        | 12       |
| 86-B-0519 | MATHIS CON | Y  |      | \$67,609.75    | \$47,500.00  | \$59,000.00    | 41        | 15       |
| 86-B-0519 | THOMAS B   | Y  |      | \$74,343.00    | \$47,500.00  | \$59,000.00    | 55        | 26       |
| 86-B-0519 | H V ALLEN  | Y  |      | \$151,200.00   | \$47,500.00  | \$59,000.00    | 174       | 102      |
| 86-B-0633 | SMITHTOWN  | Y  |      | \$110,168.00   | \$110,632.00 |                | -2        | ERROR    |
| 86-B-0802 | -ESTAR MNT | Y  |      | \$280,750.00   |              |                | ERROR     | ERROR    |
| 86-B-0802 | ALBANY JAN | ?  |      | \$177,765.00   |              |                | ERROR     | ERROR    |
| 86-B-0802 | CONTRACT 1 | Y  |      | \$284,950.00   |              |                | ERROR     | ERROR    |
| 86-B-0802 | STEEL CIRC | Y  |      | \$175,360.00   |              |                | ERROR     | ERROR    |
| 86-B-0804 | ECCLES EEC | Y  | Y    | \$1,366,797.36 | ERROR        |                | ERROR     | ERROR    |
| 86-B-0805 | EUILD MAT  | Y  |      | \$46,132.00    | \$25,301.00  |                | 75        | ERROR    |
| 86-B-0805 | SUNBELT TE | Y  |      | \$49,400.00    | \$25,301.00  |                | 88        | ERROR    |
| 86-B-0807 | MID MAINE  | ?  |      | \$579,000.00   | \$190,467.00 |                | 59        | ERROR    |
| 86-B-0807 | WYMAN & SI | ?  |      | \$656,700.00   | \$190,467.00 |                | 87        | ERROR    |
| 86-B-0815 | A & C DLOS | Y  |      | \$1,971,915.00 |              |                | ERROR     | ERROR    |
| 86-B-0815 | ASLE ENTER | Y  |      | \$3,093,504.00 |              |                | ERROR     | ERROR    |



| CONTRACT# | OFFEROR    | SE | S O P | EID            | GOV'T EST | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|-----------|--------------|-----------|----------|
| 86-B-0815 | ATLANTIC M | Y  |       | \$2,082,582.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | CASSIDY CL | Y  |       | \$1,542,018.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | CUSTODIAL  | Y  |       | \$2,129,280.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | DTM INC    | ?  |       | \$2,011,995.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | EBON SERVI | Y  |       | \$2,715,127.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | GENERAL SE | Y  |       | \$1,650,870.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | GOVERNMENT | Y  |       | \$1,644,042.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | INDUSTRIAL | Y  |       | \$2,199,086.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | J & L JANI | Y  |       | \$1,883,572.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | J & W JANI | Y  |       | \$1,087,190.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | OPERATIONS | ?  |       | \$2,333,450.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | SEE CLEAR  | Y  |       | \$1,982,009.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | SFICK AND  | Y  |       | \$2,817,787.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | SULLIVAN J | Y  |       | \$2,508,475.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | THE PROFES | Y  |       | \$1,444,646.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | A TO Z MAI | Y  | Y     | \$1,834,152.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | ALPHA MAIN | Y  | Y     | \$1,705,650.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | GM & M CLE | Y  | Y     | \$1,535,070.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | J & H BLOS | Y  | Y     | \$1,379,724.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | KOREAN MAI | Y  | Y     | \$1,958,947.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | SUCRE INC  | Y  | Y     | \$2,458,240.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | SWALLEY CD | Y  | Y     | \$1,825,088.00 |           |              | ERROR     | ERROR    |
| 86-B-0815 | UNION JANI | Y  | Y     | \$1,854,155.00 |           |              | ERROR     | ERROR    |
| 86-B-0818 | ISI SECURI | Y  |       | \$1,453,049.10 | ERROR     |              | ERROR     | ERROR    |
| 86-B-0818 | APEX INVES | Y  | Y     | \$1,618,044.51 | ERROR     |              | ERROR     | ERROR    |
| 86-B-0818 | VALLEY FOR | Y  | Y     | \$1,381,678.35 | ERROR     |              | ERROR     | ERROR    |
| 86-B-0818 | WILLIAM GU | Y  | Y     | \$1,248,224.60 | ERROR     |              | ERROR     | ERROR    |
| 86-B-0819 | ECCLES SEC | Y  | Y     | \$107,801.00   | ERROR     |              | ERROR     | ERROR    |
| 86-B-0819 | JFJ SECURI | Y  | Y     | \$104,800.00   | ERROR     |              | ERROR     | ERROR    |
| 86-B-0836 | ALPHA MNT  | Y  |       | \$888,424.53   |           | \$669,749.00 | ERROR     | 33       |
| 86-B-0836 | BILL R HEA | ?  |       | \$697,577.11   |           | \$669,749.00 | ERROR     | 4        |
| 86-B-0836 | CLEAR THRU | Y  |       | \$713,481.23   |           | \$669,749.00 | ERROR     | 7        |
| 86-B-0839 | HYLANE INC | Y  |       | \$797,320.15   |           | \$669,749.00 | ERROR     | 19       |
| 86-B-0836 | INDUSTRIAL | Y  |       | \$1,027,567.82 |           | \$669,749.00 | ERROR     | 59       |
| 86-B-0836 | JOHNSON &  | ?  |       | \$1,062,174.18 |           | \$669,749.00 | ERROR     | 59       |
| 86-B-0836 | L J NICHIA | Y  |       | \$829,419.64   |           | \$669,749.00 | ERROR     | 24       |
| 86-B-0836 | NORTHERN V | Y  |       | \$917,652.19   |           | \$669,749.00 | ERROR     | 37       |
| 86-B-0836 | OPERATIONS | Y  |       | \$1,137,225.86 |           | \$669,749.00 | ERROR     | 70       |
| 86-B-0836 | PARURKEE C | Y  |       | \$1,221,986.68 |           | \$669,749.00 | ERROR     | 82       |
| 86-B-0836 | R & D CUST | Y  |       | \$722,843.68   |           | \$669,749.00 | ERROR     | 8        |
| 86-B-0836 | SRC INC    | Y  |       | \$563,082.81   |           | \$669,749.00 | ERROR     | -16      |
| 86-B-0836 | MEDINA BRO | Y  | y     | \$959,633.42   |           | \$669,749.00 | ERROR     | 34       |
| 86-B-0836 | MR KLEAN J | Y  | y     | \$907,676.48   |           | \$669,749.00 | ERROR     | 36       |
| 86-B-0836 | SFICK & SP | Y  | y     | \$1,227,728.87 |           | \$669,749.00 | ERROR     | 83       |
| 86-B-0836 | TELLENY JA | ?  | y     | \$1,241,775.00 |           | \$669,749.00 | ERROR     | 85       |
| 86-B-0836 | WINSTON JA | Y  | y     | \$1,641,777.35 |           | \$669,749.00 | ERROR     | 145      |
| 86-B-0840 | COMMAND SE | Y  |       | \$1,435,729.00 | \$0.00    | \$0.00       | 0         | ERROR    |
| 86-B-0840 | E M S I    | Y  |       | \$1,494,989.32 | \$0.00    | \$0.00       | 0         | ERROR    |
| 86-B-0840 | GREAT FLAI | Y  |       | \$1,123,257.32 | \$0.00    | \$0.00       | 0         | ERROR    |
| 86-B-0840 | ISI SEC. S | Y  |       | \$1,257,529.60 | \$0.00    | \$0.00       | 0         | ERROR    |
| 86-B-0840 | FOCKPORT I | Y  |       | \$1,441,116.10 | \$0.00    | \$0.00       | 0         | ERROR    |
| 86-B-0840 | UNITED INT | Y  |       | \$1,194,057.60 | \$0.00    | \$0.00       | 0         | ERROR    |



| CONTRACT# | OFFEROR     | SE | S.D.B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|-------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 86-E-0840 | UNIVERSAL   | Y  |       | \$1,609,384.40 | \$0.00         | \$0.00         | 0         | ERROR    |
| 86-B-0840 | MASTER DET  | Y  |       | \$1,554,229.52 | ERROR          |                | ERROR     | ERROR    |
| 86-B-0840 | NSF SECURI  | Y  |       | \$1,584,265.60 | ERROR          |                | ERROR     | ERROR    |
| 86-B-0840 | Q.E. ENTER  | Y  |       | \$1,473,167.52 | ERROR          |                | ERROR     | ERROR    |
| 86-B-0840 | RI          | Y  |       | \$1,345,753.05 | ERROR          |                | ERROR     | ERROR    |
| 86-B-0840 | STOVALL'S   | Y  |       | \$1,560,118.00 | ERROR          |                | ERROR     | ERROR    |
| 86-B-0840 | THE SWANSD  | Y  |       | \$1,297,924.64 | ERROR          |                | ERROR     | ERROR    |
| 86-B-0840 | OLD DOMINI  | Y  | Y     | \$1,472,129.76 | \$0.00         | \$0.00         | 0         | ERROR    |
| 86-B-0844 | J VINCHO &  | Y  |       | \$23,450.00    |                | \$39,999.00    | ERROR     | -41      |
| 86-B-0844 | LERTCH WRE  | Y  |       | \$39,999.00    |                | \$39,999.00    | ERROR     | 0        |
| 86-B-0844 | MERCER WRE  | Y  |       | \$42,670.00    |                | \$39,999.00    | ERROR     | 7        |
| 86-B-1452 | BOWLIN ENG  | Y  |       | \$192,688.00   |                | \$96,844.00    | ERROR     | 99       |
| 86-B-1452 | HATCO INTE  | ?  |       | \$230,733.00   |                | \$96,844.00    | ERROR     | 138      |
| 86-B-1452 | HECO-PACIF  | Y  |       | \$291,340.00   |                | \$96,844.00    | ERROR     | 201      |
| 86-B-1452 | GHIO CRANE  | Y  |       | \$274,029.00   |                | \$96,844.00    | ERROR     | 183      |
| 86-B-1460 | BUTRA CONS  | Y  |       | \$5,730,012.00 |                |                | ERROR     | ERROR    |
| 86-B-1460 | SFANDECK I  | Y  |       | \$6,948,200.00 |                |                | ERROR     | ERROR    |
| 86-B-1460 | WESTMENT I  | Y  |       | \$200,000.00   |                |                | ERROR     | ERROR    |
| 86-B-1469 | HECO-PACIF  | Y  |       | \$322,225.00   |                |                | ERROR     | ERROR    |
| 86-B-1470 | BAY AREA C  | Y  |       | \$132,873.00   |                |                | ERROR     | ERROR    |
| 86-B-1470 | HECO-PACIF  | Y  |       | \$135,774.00   |                |                | ERROR     | ERROR    |
| 86-B-1470 | FOTRATI-SU  | Y  |       | \$278,000.00   |                |                | ERROR     | ERROR    |
| 86-B-2128 | JON CONSTR  | Y  |       | \$3,313,000.00 | \$2,362,553.00 | \$2,697,000.00 | 40        | 23       |
| 86-B-2128 | FRAUGHT CD  | Y  |       | \$3,350,000.00 | \$2,362,553.00 | \$2,697,000.00 | 42        | 24       |
| 86-B-2128 | TLT CONST.  | Y  |       | \$2,697,000.00 | \$2,362,553.00 | \$2,697,000.00 | 14        | 0        |
| 86-B-3936 | AMTRAC OF   | Y  |       | \$1,118,166.00 | \$1,116,500.00 |                | 0         | ERROR    |
| 86-B-3936 | R.R CDNST   | Y  |       | \$1,571,350.00 | \$1,116,500.00 |                | 41        | ERROR    |
| 86-B-3936 | W.E YODER   | Y  |       | \$1,069,645.00 | \$1,116,500.00 |                | -4        | ERROR    |
| 86-B-4432 | EARTH PROP  | Y  |       | \$1,609,323.00 | \$0.00         | \$451,586.00   | ERROR     | 255      |
| 86-B-4432 | PHILLIPS N  | Y  |       | \$852,360.00   | \$0.00         | \$451,586.00   | ERROR     | 89       |
| 86-B-4894 | TRI-STATE   |    |       | \$406,000.00   | \$157,032.00   |                | 159       | ERROR    |
| 86-B-4894 | HAMPTON BE  | Y  |       | \$344,200.00   | \$157,032.00   |                | 119       | ERROR    |
| 86-B-4894 | FLETCHER-H  |    |       | \$277,594.00   | \$157,032.00   |                | 77        | ERROR    |
| 86-B-4894 | DANLADI CD  | Y  |       | \$350,300.00   | \$157,032.00   |                | 128       | ERROR    |
| 86-B-4894 | STAR BRITE  | Y  |       | \$222,000.00   | \$157,032.00   |                | 41        | ERROR    |
| 86-B-6544 | A.C. SULLI  | Y  |       | \$100,000.00   | \$25,715.00    |                | 289       | ERROR    |
| 86-B-6544 | POWER FIPI  | Y  |       | \$24,990.00    | \$25,715.00    |                | -3        | ERROR    |
| 86-B-6544 | POWER FIPI  | Y  |       | \$24,990.00    | \$25,715.00    |                | -3        | ERROR    |
| 86-B-6544 | INDEFENDEN  | Y  |       | \$17,860.00    | \$25,715.00    |                | -30       | ERROR    |
| 86-B-7031 | HARRELL ME  | Y  |       | \$126,631.00   | \$133,600.00   |                | -5        | ERROR    |
| 86-B-7031 | SERGEANT SY | Y  |       | \$130,156.00   | \$133,600.00   |                | -3        | ERROR    |
| 86-B-7031 | MOORE HTG   | Y  |       | \$124,400.00   | \$133,600.00   |                | -7        | ERROR    |
| 86-B-7031 | ELLIS CORP  | Y  |       | \$135,115.00   | \$133,600.00   |                | 1         | ERROR    |
| 86-B-7031 | GRANES ?    | Y  |       | \$124,124.00   | \$133,600.00   |                | -7        | ERROR    |
| 86-B-7031 | UNITED COM  | Y  |       | \$136,392.00   | \$133,600.00   |                | 2         | ERROR    |
| 86-B-7031 | PEERLESS ?  | Y  |       | \$168,861.00   | \$133,600.00   |                | 26        | ERROR    |
| 86-B-7031 | CALCULUS    | Y  |       | \$178,980.00   | \$133,600.00   |                | 34        | ERROR    |
| 86-B-7031 | FEDERAL IM  | Y  |       | \$189,643.00   | \$133,600.00   |                | 42        | ERROR    |
| 86-B-7078 | LINDSEYS L  | Y  |       | \$53,724.00    | \$55,600.00    |                | 15        | ERROR    |
| 86-B-7078 | T & G CONS  | Y  |       | \$54,606.00    | \$55,600.00    |                | -2        | ERROR    |
| 86-B-7092 | STREIGHER   | Y  |       | \$195,000.00   | \$180,000.00   |                | 64        | ERROR    |
| 86-B-7092 | GRAVES FLS  | Y  |       | \$251,257.00   | \$180,000.00   |                | 40        | ERROR    |





| CONTRACT# | OFFEROR    | SB | S O B | BID          | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|--------------|--------------|--------------|-----------|----------|
| 86-E-7222 | NEIDIGH CO | Y  |       | \$276,582.00 | \$180,000.00 |              | 54        | ERROR    |
| 86-E-7224 | SADVA & AS |    |       | \$182,222.00 | \$142,255.00 |              | 28        | ERROR    |
| 86-E-7224 | JUD CONST  |    |       | \$182,000.00 | \$142,255.00 |              | 33        | ERROR    |
| 86-E-7224 | PACIFIC GE | Y  |       | \$190,000.00 | \$142,255.00 |              | 34        | ERROR    |
| 86-E-7224 | INDY CONST | Y  | Y     | \$175,000.00 | \$142,255.00 |              | 26        | ERROR    |
| 86-E-7225 | JUD CONST  | Y  |       | \$271,815.00 | \$164,489.00 |              | 65        | ERROR    |
| 86-E-7225 | LOUIS LIND | Y  |       | \$260,209.00 | \$164,489.00 |              | 58        | ERROR    |
| 86-E-7225 | PACIFIC GE | Y  |       | \$233,900.00 | \$164,489.00 |              | 42        | ERROR    |
| 86-E-7237 | CONST DYNA | ?  |       | \$170,457.00 | \$185,000.00 | \$159,000.00 | -8        | 7        |
| 86-E-7237 | JUD CONST  | Y  |       | \$202,969.00 | \$185,000.00 | \$159,000.00 | 10        | 26       |
| 86-E-7237 | RIVER-COTT | Y  | Y     | \$159,000.00 | \$185,000.00 | \$159,000.00 | -14       | 0        |
| 86-E-7347 | PARIS CONT |    | Y     | \$593,000.00 | \$364,921.00 |              | 64        | ERROR    |
| 86-E-7347 | BAYFIELD C | Y  |       | \$506,600.00 | \$364,921.00 |              | 39        | ERROR    |
| 86-E-7347 | ILICE CONS | Y  |       | \$495,383.00 | \$364,921.00 |              | 36        | ERROR    |
| 86-E-7347 | HOWARD J.  | Y  |       | \$488,308.00 | \$364,921.00 |              | 37        | ERROR    |
| 86-E-7347 | CITY VENTU | Y  |       | \$458,750.00 | \$364,921.00 |              | 26        | ERROR    |
| 86-E-7347 | NYDAN CONS | Y  |       | \$397,813.00 | \$364,921.00 |              | 9         | ERROR    |
| 86-E-7347 | THE SCHERS |    | Y     | \$482,240.00 | \$364,921.00 |              | 32        | ERROR    |
| 86-E-7347 | BLINDERMAN | Y  |       | \$593,011.00 | \$364,921.00 |              | 63        | ERROR    |
| 86-E-7746 | LYTURN CON |    |       | \$67,181.00  | \$70,000.00  |              | -4        | ERROR    |
| 86-E-7746 | BELL STRON |    |       | \$38,976.00  | \$70,000.00  |              | -44       | ERROR    |
| 86-E-7746 | NORTHWEST  |    |       | \$24,394.00  | \$70,000.00  |              | -65       | ERROR    |
| 86-E-7746 | HILL VALLE |    |       | \$24,450.00  | \$70,000.00  |              | -65       | ERROR    |
| 86-E-7746 | DEW INC    |    |       | \$26,720.00  | \$70,000.00  |              | -62       | ERROR    |
| 86-E-7746 | TAYLOR MOD |    |       | \$22,196.00  | \$70,000.00  |              | -68       | ERROR    |
| 86-E-7746 | NORAN & AS |    |       | \$79,595.00  | \$70,000.00  |              | 14        | ERROR    |
| 86-E-7746 | AMERICAN C |    |       | \$24,144.00  | \$70,000.00  |              | -66       | ERROR    |
| 86-E-7746 | SEPTAR     |    |       | \$16,174.00  | \$70,000.00  |              | -77       | ERROR    |
| 86-E-7746 | CENTRAL IL |    |       | \$60,125.00  | \$70,000.00  |              | -14       | ERROR    |
| 86-E-7758 | RODNEY K.  | N  |       | \$8,248.51   |              |              | ERROR     | ERROR    |
| 86-E-7758 | MIGHTY TID | N  |       | \$35,803.69  |              |              | ERROR     | ERROR    |
| 86-E-7761 | BOSTON CLU |    |       | \$33,260.00  | \$41,380.00  | \$39,900.00  | 140       | 149      |
| 86-E-7761 | HOFFMAN &  |    |       | \$47,000.00  | \$41,380.00  | \$39,900.00  | 14        | 18       |
| 86-E-7761 | AIS TUCKFD |    |       | \$39,900.00  | \$41,380.00  | \$39,900.00  | -4        | 0        |
| 86-E-7783 | GRIFFITH B | ?  |       | \$593,630.00 | \$253,727.00 |              | 294       | ERROR    |
| 86-E-7783 | MOORE TROS | ?  |       | \$343,199.00 | \$253,727.00 |              | 38        | ERROR    |
| 86-E-7783 | RAPID CONS | ?  |       | \$483,951.00 | \$253,727.00 |              | 91        | ERROR    |
| 86-E-7785 | BWN CONTRA | Y  |       | \$88,992.00  | \$65,527.00  |              | 36        | ERROR    |
| 86-E-7787 | DALTON KIL | Y  |       | \$300,000.00 | \$298,736.00 |              | 0         | ERROR    |
| 86-E-7787 | SMITH CONS | Y  |       | \$246,500.00 | \$298,736.00 |              | -17       | ERROR    |
| 86-E-7809 | AMERICAN C | Y  |       | \$64,894.00  | \$45,019.00  |              | 44        | ERROR    |
| 86-E-7809 | BMS INC.   | Y  |       | \$23,610.00  | \$45,019.00  |              | -48       | ERROR    |
| 86-E-7809 | ENERGY SAV | Y  |       | \$24,997.00  | \$45,019.00  |              | -44       | ERROR    |
| 86-E-7809 | FORD FOME  | Y  |       | \$53,760.00  | \$45,019.00  |              | 19        | ERROR    |
| 86-E-7809 | HARMEN LAU | ?  |       | \$20,800.00  | \$45,019.00  |              | -54       | ERROR    |
| 86-E-7809 | HOFFMAN &  | ?  |       | \$59,980.00  | \$45,019.00  |              | 33        | ERROR    |
| 86-E-7809 | JO CO CONS | Y  |       | \$79,950.00  | \$45,019.00  |              | 78        | ERROR    |
| 86-E-7809 | PHILLIP NA | Y  |       | \$45,500.00  | \$45,019.00  |              | 1         | ERROR    |
| 86-E-7809 | SEPT       | Y  |       | \$14,227.58  | \$45,019.00  |              | -46       | ERROR    |
| 86-E-7816 | RITE WAY L | Y  |       | \$352,623.75 | \$199,000.00 |              | 100       | ERROR    |
| 86-E-7816 | PARRS CONT | Y  |       | \$307,358.75 | \$199,000.00 |              | 54        | ERROR    |
| 86-E-7816 | HOWARD J.  | Y  |       | \$265,407.00 | \$199,000.00 |              | 33        | ERROR    |



| CONTRACT# | OFFEROR    | SB | S.D.B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 86-B-7822 | STRUCTURAL |    |       | \$309,650.00   | \$118,282.00   | \$128,000.00   | 162       | 142      |
| 86-B-7822 | PARIS CONT |    |       | \$128,000.00   | \$118,282.00   | \$128,000.00   | 8         | 0        |
| 86-B-7822 | LAKES & RI |    |       | \$139,860.00   | \$118,282.00   | \$128,000.00   | 18        | 9        |
| 86-B-7822 | SINGLETON  |    |       | \$170,703.00   | \$118,282.00   | \$128,000.00   | 44        | 33       |
| 86-B-7822 | GUARANTEED |    |       | \$179,465.00   | \$118,282.00   | \$128,000.00   | 52        | 40       |
| 86-B-7839 | DJM CONTRA | Y  |       | \$133,300.00   | \$134,000.00   |                | -1        | ERROR    |
| 86-B-7839 | H.V. ALLEN | Y  |       | \$278,000.00   | \$134,000.00   |                | 107       | ERROR    |
| 86-B-7844 | BROHNE CO  | ?  |       | \$204,800.00   | \$127,500.00   |                | 61        | ERROR    |
| 86-B-7844 | M & H CONT | ?  |       | \$180,629.00   | \$127,500.00   |                | 42        | ERROR    |
| 86-B-8284 | JUD CONST  | Y  |       | \$369,491.00   | \$379,227.00   | \$369,491.00   | -3        | 0        |
| 86-B-8303 | STREICHER  | Y  |       | \$151,000.00   | \$106,700.00   |                | 42        | ERROR    |
| 86-B-8303 | DAN TRAWIC | Y  |       | \$234,889.00   | \$106,700.00   |                | 120       | ERROR    |
| 86-B-8303 | BATTS CONS | Y  |       | \$256,135.00   | \$106,700.00   |                | 140       | ERROR    |
| 86-B-8303 | NEIDEGH CO | Y  |       | \$165,868.00   | \$106,700.00   |                | 55        | ERROR    |
| 86-B-8303 | LINDSEY'S  | Y  |       | \$178,127.00   | \$106,700.00   |                | 67        | ERROR    |
| 86-B-8413 | FOSTER-WHE | N  |       | \$747,600.00   | \$1,371,253.00 | \$1,049,968.00 | -45       | -29      |
| 86-B-8413 | FRANK LILL | Y  |       | \$1,049,968.00 | \$1,371,253.00 | \$1,049,968.00 | -23       | 0        |
| 86-B-8413 | HANCO FOME | Y  |       | \$1,056,970.00 | \$1,371,253.00 | \$1,049,968.00 | -20       | 4        |
| 86-B-8413 | M.C.I. CON | N  |       | \$3,431,503.00 | \$1,371,253.00 | \$1,049,968.00 | 150       | 227      |
| 86-B-8413 | NOOTER COR | N  |       | \$1,231,032.00 | \$1,371,253.00 | \$1,049,968.00 | -10       | 17       |
| 86-B-8413 | SCHNEIDER  | Y  |       | \$1,025,032.00 | \$1,371,253.00 | \$1,049,968.00 | -25       | -2       |
| 86-B-8531 | NYDAN CONS | Y  |       | \$67,173.00    | \$109,000.00   |                | -20       | ERROR    |
| 86-B-8531 | ELECTRIC E | Y  |       | \$58,722.00    | \$109,000.00   |                | -46       | ERROR    |
| 86-B-8531 | UTILITY DY | Y  |       | \$114,127.00   | \$109,000.00   |                | 5         | ERROR    |
| 86-B-8531 | AIDCASS EL | Y  |       | \$109,891.00   | \$109,000.00   |                | 1         | ERROR    |
| 86-B-8531 | JEFFREY T. | Y  |       | \$41,000.00    | \$109,000.00   |                | -62       | ERROR    |
| 86-B-8531 | DANA ENVIR | Y  |       | \$87,655.00    | \$109,000.00   |                | -20       | ERROR    |
| 86-B-8531 | HOLROYD CO | Y  |       | \$87,579.00    | \$109,000.00   |                | -20       | ERROR    |
| 86-B-8559 | BAYFIELD C | Y  |       | \$66,773.00    | \$67,138.95    |                | -1        | ERROR    |
| 86-B-8559 | CAM ELEC   | Y  |       | \$5,712.00     | \$67,138.95    |                | -91       | ERROR    |
| 86-B-8559 | EXCELLENT  | Y  |       | \$61,600.00    | \$67,138.95    |                | -8        | ERROR    |
| 86-B-8559 | HOPPHAN &  | Y  |       | \$88,597.00    | \$67,138.95    |                | 32        | ERROR    |
| 86-B-8559 | ILPCE CONS | Y  |       | \$69,600.00    | \$67,138.95    |                | 4         | ERROR    |
| 86-B-8559 | NYDAN CONS | Y  |       | \$72,018.00    | \$67,138.95    |                | 7         | ERROR    |
| 86-B-8559 | OSCAR J.BE | Y  |       | \$68,000.00    | \$67,138.95    |                | 1         | ERROR    |
| 86-B-8559 | PELOMPA CO | Y  |       | \$78,445.00    | \$67,138.95    |                | 17        | ERROR    |
| 86-B-8559 | RITE-WAY   | Y  |       | \$84,770.00    | \$67,138.95    |                | 26        | ERROR    |
| 86-B-8559 | SOMERS CO  | Y  | Y     | \$69,443.00    | \$67,138.95    |                | 3         | ERROR    |
| 86-C-4910 | RIPPER INC | Y  |       | \$237,721.00   | \$115,188.00   |                | 106       | ERROR    |
| 86-C-4910 | POLARIS CO | Y  |       | \$145,200.00   | \$115,188.00   |                | 26        | ERROR    |
| 86-C-4910 | SAMPTON CO | Y  |       | \$227,800.00   | \$115,188.00   |                | 98        | ERROR    |
| 86-C-6544 | UNITED MEC | Y  |       | \$14,890.00    | \$25,715.00    |                | -42       | ERROR    |
| 86-C-7764 | WM SCHAUS  | ?  |       | \$31,571.00    | \$48,508.00    |                | -35       | ERROR    |
| 87- -4646 | JACK COHEN | Y  |       | \$53,870.00    | \$76,053.00    |                | -29       | ERROR    |
| 87-4705   | WALTER STR | Y  |       | \$369,276.00   | \$320,000.00   |                | 15        | ERROR    |
| 87-4705   | MAGNUM INC | Y  |       | \$387,000.00   | \$320,000.00   |                | 21        | ERROR    |
| 87-4705   | RANCO CONS | Y  |       | \$337,000.00   | \$320,000.00   |                | 5         | ERROR    |
| 87-4705   | INTL CONST | Y  |       | \$334,345.00   | \$320,000.00   |                | 4         | ERROR    |
| 87-4705   | DANLADI CO |    | Y     | \$393,000.00   | \$320,000.00   |                | 20        | ERROR    |
| 87-4705   | PNM CONST  | Y  |       | \$286,500.00   | \$320,000.00   |                | -10       | ERROR    |
| 87-4705   | MILLER BRD | Y  |       | \$291,090.00   | \$320,000.00   |                | -9        | ERROR    |
| 87-4705   | MIBO CONST | Y  |       | \$297,345.20   | \$320,000.00   |                | -7        | ERROR    |



| CONTRACT# | OFFEROR    | SB | S.D.B | BID             | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|-----------------|----------------|----------------|-----------|----------|
| 87-4795   | FAPINELLI  | Y  |       | \$98,693.75     | \$24,179.78    |                | 267       | ERROR    |
| 87-4795   | FNM CONST  | ?  |       | \$24,200.00     | \$24,179.78    |                | 0         | ERROR    |
| 87-4795   | HAMPTON CD | Y  |       | \$48,700.00     | \$24,179.78    |                | 101       | ERROR    |
| 87-4795   | RANCO CONS | Y  |       | \$32,530.00     | \$24,179.78    |                | 35        | ERROR    |
| 87-4795   | INTL CONST | Y  |       | \$17,500.00     | \$24,179.78    |                | -28       | ERROR    |
| 87-B-0004 | R-E CONSTR | Y  |       | \$53,264.34     | \$113,510.00   |                | -53       | ERROR    |
| 87-B-0004 | R-C CONSTR | Y  |       | \$53,264.34     | \$113,510.00   |                | -53       | ERROR    |
| 87-B-0010 | A F LUSI C | Y  |       | \$2,044,714.00  | \$1,094,000.00 |                | 87        | ERROR    |
| 87-B-0010 | BRAPHY & F | Y  |       | \$2,698,813.00  | \$1,094,000.00 |                | 146       | ERROR    |
| 87-E-0010 | MARON CONS | Y  |       | \$1,743,209.00  | \$1,054,000.00 |                | 59        | ERROR    |
| 87-B-0012 | B WRUMBER  | N  |       | \$10,067,255.00 | \$9,100,000.00 | \$9,579,425.00 | 11        | 5        |
| 87-B-0012 | BLINDERMAN | N  |       | \$9,579,425.00  | \$9,100,000.00 | \$9,579,425.00 | 5         | 0        |
| 87-B-0012 | BLUIDIUS C | N  |       | \$12,337,000.00 | \$9,100,000.00 | \$9,579,425.00 | 36        | 29       |
| 87-B-0012 | DEKINS &   | N  |       | \$9,598,000.00  | \$9,100,000.00 | \$9,579,425.00 | 5         | 0        |
| 87-E-0012 | POWERS & S | N  | Y     | \$10,222,000.00 | \$9,100,000.00 | \$9,579,425.00 | 12        | 7        |
| 87-B-0016 | DONATO SPA | Y  |       | \$423,490.00    | \$227,000.00   | \$264,648.00   | 87        | 60       |
| 87-B-0016 | ERICO ROMA | Y  |       | \$346,643.00    | \$227,000.00   | \$264,648.00   | 53        | 31       |
| 87-B-0016 | HAMPTON EE | Y  |       | \$362,000.00    | \$227,000.00   | \$264,648.00   | 59        | 37       |
| 87-B-0016 | MAGNUM, IN | Y  |       | \$392,735.00    | \$227,000.00   | \$264,648.00   | 73        | 48       |
| 87-B-0016 | FNM CONSTR | Y  |       | \$264,648.00    | \$227,000.00   | \$264,648.00   | 17        | 0        |
| 87-B-0016 | RAY ANGELI | Y  |       | \$308,000.00    | \$227,000.00   | \$264,648.00   | 36        | 16       |
| 87-B-0016 | SAMBE CONS | Y  |       | \$384,000.00    | \$227,000.00   | \$264,648.00   | 69        | 45       |
| 87-B-0016 | ROSS-ARACD | Y  | Y     | \$516,670.00    | \$227,000.00   | \$264,648.00   | 128       | 95       |
| 87-B-0019 | BRENIER CD | Y  |       | \$1,057,267.00  | \$931,000.00   | \$889,216.00   | 14        | 13       |
| 87-B-0019 | GAFFNEY CD | Y  |       | \$1,089,000.00  | \$931,000.00   | \$889,216.00   | 17        | 22       |
| 87-B-0019 | GAFFNEY CD | Y  |       | \$1,089,000.00  | \$931,000.00   | \$889,216.00   | 17        | 22       |
| 87-B-0019 | BRENIER CD | Y  |       | \$1,057,267.00  | \$931,000.00   | \$889,216.00   | 14        | 19       |
| 87-B-0019 | H V ALLAN  | Y  |       | \$1,089,000.00  | \$931,000.00   | \$889,216.00   | 17        | 22       |
| 87-B-0019 | H V ALLAN  | Y  |       | \$1,089,000.00  | \$931,000.00   | \$889,216.00   | 17        | 22       |
| 87-B-0019 | JCN CONST  | Y  |       | \$1,365,000.00  | \$931,000.00   | \$889,216.00   | 47        | 54       |
| 87-B-0019 | JCN CONSTR | Y  |       | \$1,365,000.00  | \$931,000.00   | \$889,216.00   | 47        | 54       |
| 87-B-0019 | MERRIMOCK  | Y  |       | \$892,500.00    | \$931,000.00   | \$889,216.00   | -4        | 0        |
| 87-B-0019 | MERRIMOCK  | Y  |       | \$892,500.00    | \$931,000.00   | \$889,216.00   | -4        | 0        |
| 87-B-0019 | MIDDLESEX  | Y  |       | \$864,000.00    | \$931,000.00   | \$889,216.00   | 4         | 8        |
| 87-B-0019 | MIDDLESEX  | Y  |       | \$864,000.00    | \$931,000.00   | \$889,216.00   | 4         | 8        |
| 87-B-0019 | MIDDLESEX  |    |       | \$864,000.00    | \$931,000.00   | \$889,216.00   | 4         | 8        |
| 87-B-0019 | OVER & UND | Y  |       | \$889,216.00    | \$931,000.00   | \$889,216.00   | -4        | 0        |
| 87-B-0019 | SWEPCO CDR | Y  |       | \$1,211,000.00  | \$931,000.00   | \$889,216.00   | 30        | 36       |
| 87-B-0019 | SWEPCO CDR | Y  |       | \$1,211,000.00  | \$931,000.00   | \$889,216.00   | 30        | 36       |
| 87-B-0023 | CANASTOTA  | Y  |       | \$290,800.00    | \$269,548.00   | \$247,200.00   | 8         | 18       |
| 87-B-0023 | D H SKITH  | Y  |       | \$351,991.87    | \$269,548.00   | \$247,200.00   | 31        | 42       |
| 87-B-0023 | HANNA CONS | Y  |       | \$368,000.00    | \$269,548.00   | \$247,200.00   | 37        | 49       |
| 87-B-0023 | HANNA CONS | Y  |       | \$368,000.00    | \$269,548.00   | \$247,200.00   | 37        | 49       |
| 87-B-0023 | J & J KING | Y  |       | \$247,200.00    | \$269,548.00   | \$247,200.00   | -8        | 0        |
| 87-B-0023 | JOHN FURA  | Y  |       | \$268,990.00    | \$269,548.00   | \$247,200.00   | -0        | 9        |
| 87-B-0023 | LANE CONST | Y  |       | \$368,000.00    | \$269,548.00   | \$247,200.00   | 37        | 45       |
| 87-B-0023 | LANE CONST | Y  |       | \$368,000.00    | \$269,548.00   | \$247,200.00   | 37        | 49       |
| 87-B-0023 | DCUTO BLAC | Y  |       | \$357,652.00    | \$269,548.00   | \$247,200.00   | 48        | 61       |
| 87-B-0023 | DCUTO BLAC | Y  |       | \$357,652.00    | \$269,548.00   | \$247,200.00   | 48        | 61       |
| 87-B-0023 | RICHARD LY | Y  |       | \$335,000.00    | \$269,548.00   | \$247,200.00   | 24        | 35       |
| 87-B-0023 | CANASTOTA  | Y  | ?     | \$290,800.00    | \$269,548.00   | \$247,200.00   | 8         | 18       |
| 87-B-0023 | D,H SMITH  | Y  | ?     | \$351,991.87    | \$269,548.00   | \$247,200.00   | 31        | 42       |



| CONTRACT# | OFFEROR    | SE | S.D.B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 87-B-0023 | J&J KING D | Y  | ?     | \$247,200.00   | \$269,548.00   | \$247,200.00   | -8        | 0        |
| 87-B-0023 | JOHN FURA  | Y  | ?     | \$268,990.00   | \$269,548.00   | \$247,200.00   | -0        | 9        |
| 87-B-0023 | RICHARD LY | Y  | ?     | \$330,000.00   | \$269,548.00   | \$247,200.00   | 22        | 33       |
| 87-B-0026 | KIRK ERDS  | Y  |       | \$1,443,500.00 | \$1,042,000.00 | \$1,094,000.00 | 39        | 32       |
| 87-B-0026 | MAGNUM INC | Y  |       | \$1,227,770.00 | \$1,042,000.00 | \$1,094,000.00 | 18        | 12       |
| 87-B-0026 | SAMEE CONS | Y  |       | \$1,094,000.00 | \$1,042,000.00 | \$1,094,000.00 | 5         | 0        |
| 87-B-0036 | BALCAR CON | Y  |       | \$477,600.00   | \$180,546.00   | \$180,000.00   | 165       | 165      |
| 87-B-0036 | BERNHIL CO | Y  |       | \$279,000.00   | \$180,546.00   | \$180,000.00   | 55        | 55       |
| 87-B-0036 | CHATTERJEE | Y  |       | \$225,000.00   | \$180,546.00   | \$180,000.00   | 25        | 25       |
| 87-B-0036 | KORNAS CON | Y  |       | \$192,710.00   | \$180,546.00   | \$180,000.00   | 7         | 7        |
| 87-B-0036 | MANSHUL CO | Y  |       | \$590,000.00   | \$180,546.00   | \$180,000.00   | 227       | 228      |
| 87-B-0036 | P F LOMMA  | Y  |       | \$1,252,500.00 | \$180,546.00   | \$180,000.00   | 594       | 596      |
| 87-B-0036 | ROME GENER | Y  |       | \$226,000.00   | \$180,546.00   | \$180,000.00   | 25        | 25       |
| 87-B-0043 | CACTMAN ME | Y  |       | \$370,200.00   | \$198,241.00   | \$207,797.00   | 87        | 78       |
| 87-B-0043 | WESCOTT EL | Y  |       | \$894,499.00   | \$198,241.00   | \$207,797.00   | 351       | 330      |
| 87-B-0043 | ALFRED J.  | Y  |       | \$207,797.00   | \$198,241.00   | \$207,797.00   | 5         | 0        |
| 87-B-0043 | BORO DEVEL | Y  |       | \$369,950.00   | \$198,241.00   | \$207,797.00   | 87        | 78       |
| 87-B-0043 | M & H ELEC | Y  |       | \$497,136.00   | \$198,241.00   | \$207,797.00   | 151       | 139      |
| 87-B-0043 | DEL VAL ME | Y  |       | \$798,868.00   | \$198,241.00   | \$207,797.00   | 303       | 284      |
| 87-B-0043 | SAGE COM I | Y  |       | \$408,203.00   | \$198,241.00   | \$207,797.00   | 106       | 96       |
| 87-B-0043 | TEABOARD E | Y  |       | \$602,342.00   | \$198,241.00   | \$207,797.00   | 205       | 192      |
| 87-B-0043 | MUCERO ELE | Y  |       | \$345,000.00   | \$198,241.00   | \$207,797.00   | 74        | 66       |
| 87-B-0043 | SHELBY'S D | Y  |       | \$500,000.00   | \$198,241.00   | \$207,797.00   | 152       | 141      |
| 87-B-0043 | DELTA LINE | Y  |       | \$625,000.00   | \$198,241.00   | \$207,797.00   | 215       | 201      |
| 87-B-0043 | CARR & DUF | Y  |       | \$421,955.00   | \$198,241.00   | \$207,797.00   | 113       | 103      |
| 87-B-0043 | DNSHORE CO | Y  |       | \$473,500.00   | \$198,241.00   | \$207,797.00   | 139       | 128      |
| 87-B-0043 | THE LACK G | Y  |       | \$414,000.00   | \$198,241.00   | \$207,797.00   | 109       | 99       |
| 87-B-0103 | CRIS CONTR | Y  |       | \$355,000.00   | \$399,666.00   |                | -11       | ERROR    |
| 87-B-0111 | M.V. WOODS | Y  |       | \$59,938.00    | \$34,661.00    |                | 73        | ERROR    |
| 87-B-0111 | J.E. STAUF | Y  |       | \$34,330.00    | \$34,661.00    |                | -1        | ERROR    |
| 87-B-0111 | ARCHER JON | Y  |       | \$24,535.00    | \$34,661.00    |                | -29       | ERROR    |
| 87-B-0111 | LAW BROS C | Y  |       | \$65,454.00    | \$34,661.00    |                | 89        | ERROR    |
| 87-B-0111 | R.J. ORTLI | Y  |       | \$52,500.00    | \$34,661.00    |                | 167       | ERROR    |
| 87-B-0111 | A.R. MACK  | Y  |       | \$54,600.00    | \$34,661.00    |                | 58        | ERROR    |
| 87-B-0308 | BEIDLER TA | Y  |       | \$247,247.00   | \$230,000.00   | \$247,247.00   | 7         | 0        |
| 87-B-0308 | WEATHER MA | Y  |       | \$245,200.00   | \$230,000.00   | \$247,247.00   | 7         | -1       |
| 87-B-0401 | JOHN HALLO | Y  |       | \$68,000.00    | \$70,000.00    |                | -3        | ERROR    |
| 87-B-0401 | R.J. DELKO | Y  |       | \$74,415.00    | \$70,000.00    |                | 6         | ERROR    |
| 87-B-0401 | PAUL J. RO | Y  |       | \$69,411.00    | \$70,000.00    |                | -1        | ERROR    |
| 87-B-0401 | EUGENE RIC | ?  |       | \$94,490.00    | \$70,000.00    |                | 35        | ERROR    |
| 87-B-0404 | MAGNUM INC | Y  |       | \$877,643.00   | \$476,036.00   | \$877,643.00   | 84        | 0        |
| 87-B-0404 | DANLADI CO | Y  | y     | \$864,000.00   | \$476,036.00   | \$877,643.00   | 81        | -2       |
| 87-B-0408 | A & H CONS | Y  |       | \$87,900.00    | \$87,900.00    | \$87,900.00    | 0         | 0        |
| 87-B-0408 | A.P. ELETR | Y  |       | \$126,059.00   | \$87,900.00    | \$87,900.00    | 43        | 43       |
| 87-B-0408 | GUADELLI B | Y  |       | \$121,000.00   | \$87,900.00    | \$87,900.00    | 38        | 38       |
| 87-B-0408 | HAMPTON BE | Y  |       | \$145,500.00   | \$87,900.00    | \$87,900.00    | 66        | 66       |
| 87-B-0408 | PIONEER CO | Y  |       | \$94,000.00    | \$87,900.00    | \$87,900.00    | 7         | 7        |
| 87-B-0408 | UNITED CON | Y  |       | \$118,000.00   | \$87,900.00    | \$87,900.00    | 34        | 34       |
| 87-B-0408 | MAGNUM INC | Y  |       | \$174,000.00   | \$220,000.00   | \$87,900.00    | -21       | 38       |
| 87-B-0409 | GAFFNY CDR | Y  |       | \$494,200.00   | \$288,384.00   |                | 71        | ERROR    |
| 87-B-0409 | HESCO- ENV | ?  |       | \$797,000.00   | \$288,384.00   |                | 176       | ERROR    |
| 87-B-0409 | LOCKWELL I | Y  |       | \$450,000.00   | \$288,384.00   |                | 56        | ERROR    |





| CONTRACT# | OFFEROR     | SE | S.D B | BID            | GOV'T EST      | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|-------------|----|-------|----------------|----------------|--------------|-----------|----------|
| 87-B-0409 | LYBURN CON  | Y  |       | \$393,800.00   | \$288,384.00   |              | 37        | ERROR    |
| 87-B-0409 | WM BIRCH C  | Y  |       | \$345,598.00   | \$288,384.00   |              | 21        | ERROR    |
| 87-B-0411 | A P WHITAK  | Y  |       | \$194,000.00   | \$186,957.00   | \$186,957.00 | 4         | 4        |
| 87-B-0411 | BRADSTREET  | Y  |       | \$298,000.00   | \$186,957.00   | \$186,957.00 | 59        | 59       |
| 87-B-0411 | CONSOLIDAT  | Y  |       | \$207,999.00   | \$186,957.00   | \$186,957.00 | 11        | 11       |
| 87-B-0411 | E L SHEA I  | Y  |       | \$186,957.00   | \$186,957.00   | \$186,957.00 | 0         | 0        |
| 87-B-0411 | MID MAINE   | Y  |       | \$228,600.00   | \$186,957.00   | \$186,957.00 | 22        | 22       |
| 87-B-0431 | ROCKWELL I  | Y  |       | \$379,000.00   | \$244,331.00   | \$379,000.00 | 55        | 0        |
| 87-B-0432 | BARBATO CD  | Y  |       | \$138,437.00   | \$101,580.00   | \$132,700.00 | 36        | 4        |
| 87-B-0432 | KELCO BLDG  | Y  |       | \$132,700.00   | \$101,580.00   | \$132,700.00 | 31        | 0        |
| 87-B-0441 | HUTCHINSON  | Y  |       | \$948,989.00   | \$2,304,445.00 | \$948,989.00 | -59       | 0        |
| 87-B-0441 | NORTH AMER  | Y  |       | \$1,279,000.00 | \$2,304,445.00 | \$948,989.00 | -44       | 35       |
| 87-B-0441 | UNITED CRE  | Y  |       | \$1,258,258.00 | \$2,304,445.00 | \$948,989.00 | -45       | 33       |
| 87-B-0442 | C. PYRAMID  | Y  |       | \$1,150,000.00 | \$795,749.00   |              | 45        | ERROR    |
| 87-B-0442 | B.P. PALAM  | Y  |       | \$1,129,289.00 | \$795,749.00   |              | 42        | ERROR    |
| 87-B-0442 | GAUDELLI B  | Y  |       | \$858,000.00   | \$795,749.00   |              | 8         | ERROR    |
| 87-B-0442 | GUINTA CON  | Y  |       | \$955,000.00   | \$795,749.00   |              | 20        | ERROR    |
| 87-B-0442 | LOTT GROUP  | Y  |       | \$1,111,000.00 | \$795,749.00   |              | 40        | ERROR    |
| 87-B-0442 | MAGNUM INC  | Y  |       | \$1,099,799.00 | \$795,749.00   |              | 37        | ERROR    |
| 87-B-0442 | DANLADI CD  | Y  | Y     | \$1,230,000.00 | \$795,749.00   |              | 55        | ERROR    |
| 87-B-0458 | MOSO CONST  | Y  |       | \$1,815,776.00 | \$1,151,000.00 |              | 58        | ERROR    |
| 87-B-0458 | CIRCLE-A C  | Y  |       | \$1,668,411.95 | \$1,151,000.00 |              | 45        | ERROR    |
| 87-B-0458 | D.S. CONTR  | Y  |       | \$571,611.94   | \$1,151,000.00 |              | -24       | ERROR    |
| 87-B-0458 | CENTRAL AT  | Y  |       | \$759,937.49   | \$1,151,000.00 |              | -34       | ERROR    |
| 87-B-0458 | TOWASCO CD  | Y  |       | \$573,763.00   | \$1,151,000.00 |              | -41       | ERROR    |
| 87-B-0458 | COSTELLO I  | Y  |       | \$633,274.38   | \$1,151,000.00 |              | -45       | ERROR    |
| 87-B-0458 | FRASSETTO   | Y  |       | \$995,553.93   | \$1,151,000.00 |              | -14       | ERROR    |
| 87-B-0458 | J.H. REID   | Y  |       | \$1,858,182.00 | \$1,151,000.00 |              | 61        | ERROR    |
| 87-B-0468 | MCS TO CON  | Y  |       | \$366,673.10   | \$1,151,000.00 |              | -16       | ERROR    |
| 87-B-0468 | CIRCLE A C  | Y  |       | \$1,815,776.00 | \$1,151,000.00 |              | 58        | ERROR    |
| 87-B-0468 | J.H. REID   | Y  |       | \$1,858,182.00 | \$1,151,000.00 |              | 61        | ERROR    |
| 87-B-0468 | A.H. 2 CONT | Y  |       | \$871,611.94   | \$1,151,000.00 |              | -24       | ERROR    |
| 87-B-0468 | CENTRAL AT  | Y  |       | \$759,937.49   | \$1,151,000.00 |              | -34       | ERROR    |
| 87-B-0468 | TOWASCO     | Y  |       | \$573,763.00   | \$1,151,000.00 |              | -41       | ERROR    |
| 87-B-0468 | COSTELLO I  | Y  |       | \$633,274.38   | \$1,151,000.00 |              | -45       | ERROR    |
| 87-B-0468 | FRASSETTO   | Y  |       | \$995,553.98   | \$1,151,000.00 |              | -14       | ERROR    |
| 87-B-0472 | GEM BUILDE  | Y  |       | \$81,640.00    | \$91,400.00    | \$66,850.00  | -11       | 22       |
| 87-B-0472 | MARON CON   | Y  |       | \$66,850.00    | \$91,400.00    | \$66,850.00  | -27       | 0        |
| 87-B-0472 | Q R KURBIC  | Y  |       | \$101,680.00   | \$91,400.00    | \$66,850.00  | 11        | 52       |
| 87-B-0472 | R P IANNUC  | Y  |       | \$97,600.00    | \$91,400.00    | \$66,850.00  | 7         | 46       |
| 87-B-0475 | GAFFNEY CD  | Y  |       | \$519,000.00   | \$288,384.00   | \$383,500.00 | 80        | 35       |
| 87-B-0475 | P & D CONT  | Y  |       | \$383,500.00   | \$288,384.00   | \$383,500.00 | 33        | 0        |
| 87-B-0475 | ROCKWELL I  | Y  |       | \$458,000.00   | \$288,384.00   | \$383,500.00 | 59        | 19       |
| 87-B-0475 | WILLIAM BI  | Y  |       | \$389,547.00   | \$288,384.00   | \$383,500.00 | 35        | 2        |
| 87-B-0800 | -NCO CONST  | Y  |       | \$427,000.00   |                | \$477,000.00 | ERROR     | -10      |
| 87-B-0800 | J.R. SEAMA  | Y  |       | \$279,000.00   |                | \$477,000.00 | ERROR     | -42      |
| 87-B-0800 | RCI CONTRA  | Y  |       | \$477,000.00   |                | \$477,000.00 | ERROR     | 0        |
| 87-B-0810 | DDXNCO CON  | Y  |       | \$493,759.00   | \$0.00         |              | 0         | ERROR    |
| 87-B-0810 | FRAUGHT CD  | Y  |       | \$530,000.00   | \$0.00         |              | ERROR     | ERROR    |
| 87-B-0810 | REAGAN CON  | Y  |       | \$247,000.00   | \$0.00         |              | ERROR     | ERROR    |
| 87-B-0810 | Osconco Con | Y  |       | \$498,769.00   | \$269,548.00   |              | 85        | ERROR    |
| 87-B-0810 | Reagan Con  | Y  |       | \$247,000.00   | \$269,548.00   |              | -8        | ERROR    |



| CONTRACT# | OFFEROR    | SE | S.D.B | BID            | GOV'T EST      | AWARD PRICE    | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|----------------|----------------|-----------|----------|
| 87-B-0810 | PRAUGHT CO | Y  |       | \$530,000.00   | ERROR          | ERROR          | ERROR     | ERROR    |
| 87-B-0810 | AETNA BRID | Y  | Y     | \$941,350.00   | \$0.00         |                | ERROR     | ERROR    |
| 87-B-0810 | NEW ENGLAN | Y  | Y     | \$632,009.00   | \$0.00         |                | ERROR     | ERROR    |
| 87-B-0810 | Aetna Brid | Y  | Y     | \$941,350.00   | ERROR          | ERROR          | ERROR     | ERROR    |
| 87-B-0810 | New Englan | Y  | Y     | \$632,009.00   | ERROR          | ERROR          | ERROR     | ERROR    |
| 87-B-0900 | PRAUGHT CO | Y  |       | \$480,000.00   |                |                | ERROR     | ERROR    |
| 87-B-1454 | DEVAULT SE | Y  |       | \$91,882.00    |                |                | ERROR     | ERROR    |
| 87-B-1454 | PARK WELDI | Y  |       | \$26,741.00    |                |                | ERROR     | ERROR    |
| 87-B-2513 | PC & J CON | Y  |       | \$1,237,070.00 | \$906,000.00   | \$921,843.00   | 37        | 34       |
| 87-B-2513 | R J SANDER | Y  |       | \$921,843.00   | \$906,000.00   | \$921,843.00   | 2         | 0        |
| 87-B-2513 | SULLIVAN M | Y  |       | \$1,107,168.00 | \$906,000.00   | \$921,843.00   | 22        | 20       |
| 87-B-2513 | SWEPOD COR | Y  |       | \$1,127,000.00 | \$906,000.00   | \$921,843.00   | 24        | 22       |
| 87-B-2513 | THE GIBSON | Y  |       | \$1,165,000.00 | \$906,000.00   | \$921,843.00   | 29        | 26       |
| 87-B-2581 | 0          | 0  |       | \$0.00         | \$0.00         |                | ERROR     | ERROR    |
| 87-B-2589 | CENTRAL AT | Y  |       | \$854,850.00   | \$1,009,690.00 | \$753,422.00   | -15       | 13       |
| 87-B-2589 | COSTELLA I | Y  |       | \$759,525.00   | \$1,009,690.00 | \$753,422.00   | -25       | 1        |
| 87-B-2589 | DAVIS & HA | Y  |       | \$1,067,786.00 | \$1,009,690.00 | \$753,422.00   | 6         | 42       |
| 87-B-2589 | FINE CONTR | Y  |       | \$753,422.00   | \$1,009,690.00 | \$753,422.00   | -25       | 0        |
| 87-B-2589 | THE BRIDGE | Y  |       | \$1,395,140.00 | \$1,009,690.00 | \$753,422.00   | 38        | 85       |
| 87-B-2589 | TOWASCO CO | Y  |       | \$1,162,420.00 | \$1,009,690.00 | \$753,422.00   | 15        | 54       |
| 87-B-2606 | REED & REE | Y  |       | \$4,041,000.00 | \$3,194,570.00 | \$4,041,000.00 | 26        | 0        |
| 87-B-4706 | DEL VAL ME | Y  |       | \$105,908.00   | \$93,961.00    |                | 13        | ERROR    |
| 87-B-4706 | F M NORTH  | Y  |       | \$80,905.00    | \$93,961.00    |                | -14       | ERROR    |
| 87-B-4706 | FRITURA IN | Y  |       | \$95,720.00    | \$93,961.00    |                | 2         | ERROR    |
| 87-B-4706 | JACK GILL  | Y  |       | \$106,210.00   | \$93,961.00    |                | 13        | ERROR    |
| 87-B-4706 | JAMES J GA | ?  |       | \$73,490.00    | \$93,961.00    |                | -22       | ERROR    |
| 87-B-4706 | LANE & CLA | Y  |       | \$79,697.00    | \$93,961.00    |                | -15       | ERROR    |
| 87-B-4706 | MECHANICAL | Y  |       | \$80,700.00    | \$93,961.00    |                | -14       | ERROR    |
| 87-B-4706 | POWERHOUSE | Y  |       | \$76,495.00    | \$93,961.00    |                | -19       | ERROR    |
| 87-B-4706 | SDHAN MECH | Y  |       | \$84,625.00    | \$93,961.00    |                | -10       | ERROR    |
| 87-B-4706 | SYNDER CO  | Y  |       | \$94,050.00    | \$93,961.00    |                | 0         | ERROR    |
| 87-B-4712 | JACK COHEN | Y  |       | \$39,250.00    | \$23,290.00    |                | 43        | ERROR    |
| 87-B-4712 | M C SEAN E | Y  |       | \$57,000.00    | \$23,290.00    |                | 145       | ERROR    |
| 87-B-4712 | HAMPTON BE | Y  |       | \$77,700.00    | \$75,900.00    |                | 2         | ERROR    |
| 87-B-4712 | KIRK BROTH | Y  |       | \$68,200.00    | \$75,900.00    |                | -10       | ERROR    |
| 87-B-4724 | NOVAK & AS | ?  |       | \$24,826.00    | \$23,290.00    |                | 7         | ERROR    |
| 87-B-4724 | SPECTRUM C | Y  |       | \$24,224.00    | \$23,290.00    |                | 4         | ERROR    |
| 87-B-4728 | ?????? A   | ?  |       | \$59,885.00    | \$50,020.00    |                | 20        | ERROR    |
| 87-B-4728 | DAVID R EL | Y  |       | \$46,458.00    | \$50,020.00    |                | -7        | ERROR    |
| 87-B-4728 | JAMES J GA | Y  |       | \$27,485.00    | \$50,020.00    |                | -45       | ERROR    |
| 87-B-4728 | JOHN J BEE | Y  |       | \$39,492.00    | \$50,020.00    |                | -21       | ERROR    |
| 87-B-4728 | MECHANICAL | Y  |       | \$42,390.00    | \$50,020.00    |                | -15       | ERROR    |
| 87-B-4728 | PETERSON S | Y  |       | \$46,300.00    | \$50,020.00    |                | -7        | ERROR    |
| 87-B-4728 | DEL VAL ME | Y  |       | \$244,986.00   | \$166,100.00   |                | 47        | ERROR    |
| 87-B-4743 | COLLINSON  | Y  |       | \$197,471.00   | \$150,300.00   |                | 31        | ERROR    |
| 87-B-4743 | HAMPTON CO | Y  |       | \$242,000.00   | \$150,300.00   |                | 61        | ERROR    |
| 87-B-4743 | RANCO CO   | Y  |       | \$225,440.00   | \$150,300.00   |                | 50        | ERROR    |
| 87-B-4743 | RICHARD PU | Y  |       | \$144,520.00   | \$150,300.00   |                | -4        | ERROR    |
| 87-B-4764 | DPC GENERA | Y  |       | \$79,900.00    | \$61,300.00    |                | 30        | ERROR    |
| 87-B-4764 | DWALL MAIN | Y  |       | \$79,754.00    | \$61,300.00    |                | 30        | ERROR    |
| 87-B-4764 | FALCON ASS | Y  |       | \$52,000.00    | \$61,300.00    |                | -15       | ERROR    |
| 87-B-4764 | FORD GENER | Y  |       | \$24,392.00    | \$61,300.00    |                | -60       | ERROR    |



| CONTRACT# | OFFEROR     | SB | S.D.B | BID          | GOV'T EST    | AWARD PRICE | % OF GOV' | % OF AWA |
|-----------|-------------|----|-------|--------------|--------------|-------------|-----------|----------|
| 87-B-4764 | GOC & ASSO  | Y  |       | \$21,345.00  | \$61,300.00  |             | -65       | ERROR    |
| 87-B-4764 | HAZARDOUS   | Y  |       | \$60,000.00  | \$61,300.00  |             | -2        | ERROR    |
| 87-B-4764 | NAACO       | Y  |       | \$79,000.00  | \$61,300.00  |             | 29        | ERROR    |
| 87-B-4764 | PROJECT DE  | Y  |       | \$46,300.00  | \$61,300.00  |             | -24       | ERROR    |
| 87-B-4764 | SEAGULL EN  | Y  |       | \$96,475.00  | \$61,300.00  |             | 57        | ERROR    |
| 87-B-4764 | WILLIAM C.  | ?  |       | \$51,400.00  | \$61,300.00  |             | -16       | ERROR    |
| 87-B-4788 | BAY WELDIR  | Y  |       | \$340,000.00 | \$166,100.00 |             | 105       | ERROR    |
| 87-B-4788 | COTTMAN ME  | Y  |       | \$249,100.00 | \$166,100.00 |             | 50        | ERROR    |
| 87-B-4788 | MAGNUM INC  | Y  |       | \$387,975.00 | \$166,100.00 |             | 134       | ERROR    |
| 87-B-4788 | WILKO CORP  | Y  |       | \$500,000.00 | \$166,100.00 |             | 201       | ERROR    |
| 87-B-4796 | ASBESTOS R  | ?  |       | \$95,141.95  | \$81,000.00  |             | 17        | ERROR    |
| 87-B-4796 | ASBESTOS R  | Y  |       | \$69,545.00  | \$118,700.00 |             | -41       | ERROR    |
| 87-B-4796 | CONSTRUCTI  | ?  |       | \$78,250.00  | \$118,700.00 |             | -34       | ERROR    |
| 87-B-4796 | DORE & ASS  | Y  |       | \$214,400.00 | \$118,700.00 |             | 81        | ERROR    |
| 87-B-4796 | DUAL INC.   | Y  |       | \$170,646.00 | \$118,700.00 |             | 44        | ERROR    |
| 87-B-4796 | FALCON ASS  | Y  |       | \$80,350.00  | \$118,700.00 |             | -32       | ERROR    |
| 87-B-4796 | HAZARDOUS   | Y  |       | \$180,000.00 | \$118,700.00 |             | 52        | ERROR    |
| 87-B-4796 | NAACO       | Y  |       | \$200,295.00 | \$118,700.00 |             | 69        | ERROR    |
| 87-B-4796 | PROJECT DE  | Y  |       | \$98,700.00  | \$118,700.00 |             | -25       | ERROR    |
| 87-B-4796 | SEAGULL EN  | Y  |       | \$93,472.00  | \$118,700.00 |             | -17       | ERROR    |
| 87-B-4797 | DPC GENERA  | Y  |       | \$109,998.00 | \$81,000.00  |             | 36        | ERROR    |
| 87-B-4797 | DUAL INC.   | Y  |       | \$70,050.00  | \$81,000.00  |             | -14       | ERROR    |
| 87-B-4797 | FALCON ASS  | Y  |       | \$66,400.00  | \$81,000.00  |             | -18       | ERROR    |
| 87-B-4797 | HAZARDOUS   | Y  |       | \$150,000.00 | \$81,000.00  |             | 85        | ERROR    |
| 87-B-4797 | PROJECT DE  | Y  |       | \$87,000.00  | \$81,000.00  |             | 7         | ERROR    |
| 87-B-4799 | HAMPTON EE  | Y  |       | \$255,900.00 | \$179,832.00 |             | 31        | ERROR    |
| 87-B-4799 | MAGNUM INC  | Y  |       | \$207,224.00 | \$179,832.00 |             | 15        | ERROR    |
| 87-B-4799 | MISO CONST  | Y  |       | \$185,243.00 | \$179,832.00 |             | 3         | ERROR    |
| 87-B-4799 | PARKS & EI  | Y  |       | \$224,511.00 | \$179,832.00 |             | 25        | ERROR    |
| 87-B-4799 | RANCO CONS  | Y  |       | \$192,100.00 | \$179,832.00 |             | 7         | ERROR    |
| 87-B-4799 | ROBERT S R  | Y  |       | \$279,215.00 | \$179,832.00 |             | 55        | ERROR    |
| 87-B-5000 | EDGELEY AIR | ?  |       | \$93,081.00  | \$58,000.00  |             | 60        | ERROR    |
| 87-B-5000 | EDGELEY AIR | ?  |       | \$93,081.00  | \$58,000.00  |             | 60        | ERROR    |
| 87-B-5325 | D'STEENS C  | Y  |       | \$14,999.00  | \$22,114.00  |             | -32       | ERROR    |
| 87-B-5325 | RANCO CONS  | Y  |       | \$21,820.00  | \$22,114.00  |             | -1        | ERROR    |
| 87-B-5325 | EASTERN AT  | Y  |       | \$24,923.00  | \$22,114.00  |             | 13        | ERROR    |
| 87-B-5325 | HAMPTON BC  | Y  |       | \$29,700.00  | \$22,114.00  |             | 7         | ERROR    |
| 87-B-5325 | GAUBELL BR  | Y  |       | \$21,800.00  | \$22,114.00  |             | -1        | ERROR    |
| 87-B-5350 | B.T. PAINT  | Y  |       | \$249,000.00 | \$183,000.00 | \$89,150.00 | 36        | 179      |
| 87-B-5350 | JLT PAINTI  | Y  |       | \$117,000.00 | \$183,000.00 | \$89,150.00 | -36       | 31       |
| 87-B-5350 | HYGRADE PA  | Y  |       | \$109,697.00 | \$183,000.00 | \$89,150.00 | -43       | 16       |
| 87-B-5350 | A&S PAINTI  | Y  |       | \$89,150.00  | \$183,000.00 | \$89,150.00 | -51       | 0        |
| 87-B-5350 | PRO-SPEC P  | Y  |       | \$202,913.00 | \$183,000.00 | \$89,150.00 | 11        | 128      |
| 87-B-5350 | G&A GENERA  | Y  |       | \$195,000.00 | \$183,000.00 | \$89,150.00 | 7         | 113      |
| 87-B-5350 | STARERITE   | Y  |       | \$144,000.00 | \$183,000.00 | \$89,150.00 | -21       | 62       |
| 87-B-5350 | ATHAN CDNT  | Y  |       | \$133,000.00 | \$183,000.00 | \$89,150.00 | -24       | 56       |
| 87-B-5350 | CONSTANTIN  | Y  |       | \$188,887.00 | \$183,000.00 | \$89,150.00 | 4         | 113      |
| 87-B-5350 | PNM CONSTR  | Y  |       | \$178,227.00 | \$183,000.00 | \$89,150.00 | -3        | 100      |
| 87-B-5350 | OLYETA PAI  | Y  |       | \$163,000.00 | \$183,000.00 | \$89,150.00 | -11       | 83       |
| 87-B-5350 | CAESAR CON  | Y  |       | \$112,000.00 | \$183,000.00 | \$89,150.00 | -39       | 26       |
| 87-B-5641 | ACE SERVIC  | N  |       | \$925,752.00 |              |             | ERROR     | ERROR    |
| 87-B-5641 | ACTION MAI  | Y  |       | \$918,000.00 |              |             | ERROR     | ERROR    |



| CONTRACT# | OFFEROR    | SS | S D E | BID            | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|--------------|--------------|-----------|----------|
| 87-B-5641 | ALPHA MAT  | Y  |       | \$975,732.00   |              |              | ERROR     | ERROR    |
| 87-B-5641 | ATLANTIC M | Y  |       | \$1,352,795.00 |              |              | ERROR     | ERROR    |
| 87-B-5641 | C PROFESSI | Y  |       | \$1,320,887.06 |              |              | ERROR     | ERROR    |
| 87-B-5641 | DUTCH EDYS | Y  |       | \$522,507.00   |              |              | ERROR     | ERROR    |
| 87-B-5641 | E & W CLEA | Y  |       | \$1,071,531.00 |              |              | ERROR     | ERROR    |
| 87-B-5641 | GOLDEN BEE | Y  |       | \$584,088.00   |              |              | ERROR     | ERROR    |
| 87-B-5641 | GOVT OPERA | Y  |       | \$1,151,055.00 |              |              | ERROR     | ERROR    |
| 87-B-5641 | MELSON MAT | Y  |       | \$718,305.22   |              |              | ERROR     | ERROR    |
| 87-B-5641 | STATEWIDE  | Y  |       | \$97,803.00    |              |              | ERROR     | ERROR    |
| 87-B-5641 | SVC CONTRD | Y  |       | \$909,404.00   |              |              | ERROR     | ERROR    |
| 87-B-5641 | THE ALDEN  | ?  |       | \$575,056.00   |              |              | ERROR     | ERROR    |
| 87-B-5641 | CYCLE BLDG | Y  | Y     | \$720,323.00   |              |              | ERROR     | ERROR    |
| 87-B-5644 | J J ANDERS | Y  |       | \$107,060.00   | \$119,000.00 | \$107,060.00 | -10       | 0        |
| 87-B-5644 | JAS PROLIN | Y  |       | \$149,000.00   | \$119,000.00 | \$107,060.00 | 25        | 39       |
| 87-B-5644 | JOHN J DCU | Y  |       | \$175,000.00   | \$119,000.00 | \$107,060.00 | 47        | 63       |
| 87-B-5644 | PALAPIS CD | Y  |       | \$111,600.00   | \$119,000.00 | \$107,060.00 | -6        | 4        |
| 87-B-5935 | LAEBR INC  | Y  |       | \$900,400.00   | \$826,000.00 |              | 9         | ERROR    |
| 87-B-5935 | LOBAR INC  | Y  |       | \$900,400.00   | \$826,000.00 |              | 9         | ERROR    |
| 87-B-5956 | SKONES ADV | Y  |       | \$2,431.00     | \$2,170.00   |              | 12        | ERROR    |
| 87-B-5957 | SKONES ADV | Y  |       | \$2,431.00     | \$2,170.00   |              | 12        | ERROR    |
| 87-B-5957 | MILLER-PIC | Y  |       | \$2,480.00     | \$2,170.00   |              | 14        | ERROR    |
| 87-B-5958 | EMMORTON E | Y  |       | \$9,954.50     | \$8,670.00   |              | 15        | ERROR    |
| 87-B-5958 | POWER SVST | Y  |       | \$13,670.00    | \$8,670.00   |              | 58        | ERROR    |
| 87-B-5958 | POWER TECH | Y  |       | \$5,490.00     | \$8,670.00   |              | -37       | ERROR    |
| 87-B-5958 | NET ELECTR | Y  |       | \$11,735.00    | \$8,670.00   |              | 35        | ERROR    |
| 87-B-5958 | MICROBAC I | Y  |       | \$16,170.00    | \$8,670.00   |              | 87        | ERROR    |
| 87-B-7011 | NEIDIGH CD | Y  |       | \$115,931.00   | \$93,950.00  |              | 23        | ERROR    |
| 87-B-7011 | TREILD BLD | Y  |       | \$69,659.00    | \$93,950.00  |              | -25       | ERROR    |
| 87-B-7058 | LINDSEY LU | Y  |       | \$263,881.00   | \$267,000.00 | \$235,168.00 | -1        | 12       |
| 87-B-7058 | BAKES GEN  | Y  |       | \$263,000.00   | \$267,000.00 | \$235,168.00 | -5        | 8        |
| 87-B-7058 | NEIDIGH CD | Y  |       | \$254,957.00   | \$267,000.00 | \$235,168.00 | -5        | 8        |
| 87-B-7059 | T&G CONST  | Y  |       | \$235,168.00   | \$267,000.00 | \$235,168.00 | -12       | 0        |
| 87-B-7072 | LYNN CONST | Y  |       | \$123,315.00   | \$94,780.00  |              | 30        | ERROR    |
| 87-B-7072 | NIDIGH CON | Y  |       | \$106,451.00   | \$94,780.00  |              | 12        | ERROR    |
| 87-B-7084 | LINDSEY LU | Y  |       | \$128,208.00   | \$93,950.00  |              | 37        | ERROR    |
| 87-B-7084 | NEIDIGH CD | Y  |       | \$136,950.00   | \$93,950.00  |              | 46        | ERROR    |
| 87-B-7085 | GRAVES PLB | Y  |       | \$86,868.00    | \$86,700.00  |              | 0         | ERROR    |
| 87-B-7085 | LINDSEYS I | Y  |       | \$77,124.00    | \$86,700.00  |              | -11       | ERROR    |
| 87-B-7085 | STREICHER  | Y  |       | \$84,113.00    | \$86,700.00  |              | -3        | ERROR    |
| 87-B-7085 | PEERLESS P | Y  |       | \$191,567.00   | \$86,700.00  |              | 121       | ERROR    |
| 87-B-7085 | NEIDIGH CD | Y  |       | \$78,449.00    | \$86,700.00  |              | -10       | ERROR    |
| 87-B-7115 | C & S CONS | Y  |       | \$116,110.00   | \$30,040.00  | \$32,798.00  | 287       | 254      |
| 87-B-7115 | TEL-VI COM | Y  |       | \$35,474.00    | \$30,040.00  | \$32,798.00  | 18        | 8        |
| 87-B-7115 | HODRE & AR | Y  |       | \$32,789.00    | \$30,040.00  | \$32,798.00  | 9         | -0       |
| 87-B-7115 | KAS CABLE  | Y  |       | \$49,058.00    | \$30,040.00  | \$32,798.00  | 63        | 50       |
| 87-B-7115 | JON POWELL | Y  |       | \$17,705.00    | \$30,040.00  | \$32,798.00  | -41       | -46      |
| 87-B-7151 | NEIDIGH CD | Y  |       | \$97,550.00    | \$72,000.00  | \$67,698.00  | 35        | 44       |
| 87-B-7151 | LYND CONST | Y  |       | \$88,416.00    | \$72,000.00  | \$67,698.00  | 23        | 31       |
| 87-B-7151 | TRI CO BUI | Y  |       | \$81,900.00    | \$72,000.00  | \$67,698.00  | 14        | 21       |
| 87-B-7151 | LINDSEY LU | Y  |       | \$97,195.00    | \$72,000.00  | \$67,698.00  | 35        | 44       |
| 87-B-7151 | T & G CONS | Y  |       | \$67,698.00    | \$72,000.00  | \$67,698.00  | -6        | 0        |
| 87-B-7156 | FLEETWOOD  | Y  |       | \$49,971.00    | \$31,813.00  | \$23,950.00  | 54        | 104      |





| CONTRACT# | OFFEROR     | SB | S. D. B | BID          | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|-------------|----|---------|--------------|--------------|--------------|-----------|----------|
| 87-B-7156 | ?           | Y  |         | \$23,990.00  | \$31,813.00  | \$23,990.00  | -25       | 0        |
| 87-B-7156 | ?           | Y  |         | \$32,323.00  | \$31,813.00  | \$23,990.00  | 2         | 35       |
| 87-B-7156 | ?           | Y  |         | \$27,900.00  | \$31,813.00  | \$23,990.00  | -12       | 16       |
| 87-B-7156 | ?           | Y  |         | \$38,400.00  | \$31,813.00  | \$23,990.00  | 21        | 60       |
| 87-B-7208 | F E HARDIN  | Y  |         | \$305,000.00 | \$415,519.64 | \$256,000.00 | -27       | 19       |
| 87-B-7208 | INDIANA AS  | Y  |         | \$264,000.00 | \$415,519.64 | \$256,000.00 | -36       | 3        |
| 87-B-7208 | MOELLERING  | Y  |         | \$256,000.00 | \$415,519.64 | \$256,000.00 | -38       | 0        |
| 87-B-7210 | BROCK ELEC  | Y  |         | \$87,220.00  | \$97,075.00  | \$42,500.00  | -10       | 105      |
| 87-B-7210 | FOUR SEASO  | Y  |         | \$65,444.00  | \$97,075.00  | \$42,500.00  | -33       | 54       |
| 87-B-7210 | FOUR-SEASO  | Y  |         | \$65,444.00  | \$97,075.00  | \$42,500.00  | -33       | 54       |
| 87-B-7210 | INTERGRATE  | Y  |         | \$53,512.00  | \$97,075.00  | \$42,500.00  | -45       | 26       |
| 87-B-7210 | NFTCON      | Y  |         | \$42,500.00  | \$97,075.00  | \$42,500.00  | -56       | 0        |
| 87-B-7210 | Brock Elec  | Y  | ?       | \$87,220.00  | \$97,075.00  | \$42,500.00  | -10       | 105      |
| 87-B-7210 | Four SeasO  | Y  | ?       | \$65,444.00  | \$97,075.00  | \$42,500.00  | -33       | 54       |
| 87-B-7210 | Integrate   | Y  | ?       | \$53,512.00  | \$97,075.00  | \$42,500.00  | -45       | 26       |
| 87-B-7210 | NFTCON      | Y  | ?       | \$42,500.00  | \$97,075.00  | \$42,500.00  | -56       | 0        |
| 87-B-7210 | NFTCON      | Y  | N       | \$42,500.00  | \$97,075.00  | \$42,500.00  | -56       | 0        |
| 87-B-7238 | BARNES ELE  | Y  |         | \$199,750.00 | \$149,860.00 | \$187,818.00 | 33        | 6        |
| 87-B-7238 | COLLINS EL  | Y  |         | \$153,826.00 | \$149,860.00 | \$187,818.00 | 23        | -2       |
| 87-B-7238 | D L WOODS   | Y  |         | \$257,980.00 | \$149,860.00 | \$187,818.00 | 72        | 37       |
| 87-B-7238 | ELECTRIC P  | Y  |         | \$187,818.00 | \$149,860.00 | \$187,818.00 | 25        | 0        |
| 87-B-7247 | GINSHAU RD  | Y  |         | \$448,700.00 | \$663,744.60 | \$448,700.00 | -32       | 0        |
| 87-B-7247 | NU-SEC ROD  | Y  |         | \$652,160.00 | \$663,744.60 | \$448,700.00 | -2        | 45       |
| 87-B-7247 | TERSTEP RD  | Y  |         | \$448,700.00 | \$663,744.60 | \$448,700.00 | -32       | 0        |
| 87-B-7247 | THE GUFF S  | Y  |         | \$648,300.00 | \$663,744.60 | \$448,700.00 | -2        | 44       |
| 87-B-7264 | C.M.A CORP  | Y  |         | \$83,636.00  | \$101,689.00 | \$96,538.00  | -18       | -13      |
| 87-B-7264 | DADUA & AS  | Y  |         | \$119,964.00 | \$101,689.00 | \$96,538.00  | 18        | 24       |
| 87-B-7264 | FOUR SEASO  | Y  |         | \$149,444.00 | \$101,689.00 | \$96,538.00  | 47        | 55       |
| 87-B-7264 | JUD CONSTR  | Y  |         | \$128,666.00 | \$101,689.00 | \$96,538.00  | 27        | 33       |
| 87-B-7264 | LOUIS LIND  | Y  |         | \$96,538.00  | \$101,689.00 | \$96,538.00  | -5        | 0        |
| 87-B-7264 | MYLAR & NA  | Y  |         | \$105,207.00 | \$101,689.00 | \$96,538.00  | 3         | 9        |
| 87-B-7264 | S. C. NESTE | Y  |         | \$97,444.00  | \$101,689.00 | \$96,538.00  | -4        | 1        |
| 87-B-7283 | THE ELLIS   | Y  |         | \$112,310.00 | \$95,527.00  | \$112,310.00 | 18        | 0        |
| 87-B-7378 | ALDRIDGE E  | Y  |         | \$42,100.00  | \$55,793.00  |              | -25       | ERROR    |
| 87-B-7378 | ARLINGTON   | Y  |         | \$89,090.00  | \$55,793.00  |              | 60        | ERROR    |
| 87-B-7378 | GERSON ELE  | Y  |         | \$77,700.00  | \$55,793.00  |              | 39        | ERROR    |
| 87-B-7378 | H.V. ALLEN  | Y  |         | \$65,300.00  | \$55,793.00  |              | 53        | ERROR    |
| 87-B-7378 | LION ELEC   | Y  |         | \$54,945.00  | \$55,793.00  |              | 70        | ERROR    |
| 87-B-7378 | MARS ELEC   | Y  |         | \$88,694.00  | \$55,793.00  |              | 59        | ERROR    |
| 87-B-7378 | NYDAN CONS  | Y  |         | \$41,087.00  | \$55,793.00  |              | -26       | ERROR    |
| 87-B-7379 | BETHLEHEM   | Y  |         | \$46,900.00  | \$47,089.50  |              | -0        | ERROR    |
| 87-B-7379 | CAN ELEC C  | Y  |         | \$1,560.00   | \$47,089.50  |              | -97       | ERROR    |
| 87-B-7379 | KOVILIC CD  | Y  |         | \$58,532.00  | \$47,089.50  |              | 24        | ERROR    |
| 87-B-7379 | NAT'L CONS  | Y  |         | \$52,574.00  | \$47,089.50  |              | 12        | ERROR    |
| 87-B-7379 | PRD TECH S  | Y  |         | \$44,500.00  | \$47,089.50  |              | -5        | ERROR    |
| 87-B-7700 | ELITE ROOF  | Y  |         | \$187,000.00 | \$217,420.00 |              | -14       | ERROR    |
| 87-B-7700 | KOVILIC CD  | Y  |         | \$221,147.00 | \$217,420.00 |              | 2         | ERROR    |
| 87-B-7700 | BETHLEHEM   | Y  |         | \$175,850.00 | \$217,420.00 |              | -17       | ERROR    |
| 87-B-7700 | JETCO       | Y  |         | \$158,860.00 | \$217,420.00 |              | -27       | ERROR    |
| 87-B-7700 | BENNETTA B  | ?  |         | \$170,500.00 | \$217,420.00 |              | -22       | ERROR    |
| 87-B-7700 | E H WOODS   | Y  |         | \$217,973.00 | \$217,420.00 |              | 0         | ERROR    |
| 87-B-7700 | PROTECK SY  | Y  |         | \$243,700.00 | \$217,420.00 |              | 12        | ERROR    |



| CONTRACT# | OFFEROR     | SB | S.D.B | BID          | GOV'T EST    | AWARD PRICE | % OF GOV' | % OF AWA |
|-----------|-------------|----|-------|--------------|--------------|-------------|-----------|----------|
| 87-B-7700 | CROWTHER E  | Y  |       | \$186,000.00 | \$217,420.00 |             | -14       | ERRDR    |
| 87-B-7700 | MN SHRANZ   | Y  |       | \$173,659.00 | \$217,420.00 |             | -20       | ERRDR    |
| 87-B-7700 | AMERICAN R  | Y  |       | \$189,772.00 | \$217,420.00 |             | -13       | ERRDR    |
| 87-B-7702 | POWER SYST  |    |       | \$24,585.00  | \$40,000.00  |             | -39       | ERRDR    |
| 87-B-7702 | 3C ELECTRI  |    |       | \$35,265.00  | \$40,000.00  |             | -12       | ERRDR    |
| 87-B-7702 | WESTINGHOV  |    |       | \$29,700.00  | \$40,000.00  |             | -26       | ERRDR    |
| 87-B-7702 | ALB-CASS E  |    |       | \$57,500.00  | \$40,000.00  |             | 44        | ERRDR    |
| 87-B-7713 | INDUSTRIAL  |    |       | \$551,000.00 | \$603,500.00 |             | -9        | ERRDR    |
| 87-B-7713 | BLEVOZIERE  |    |       | \$727,400.00 | \$603,500.00 |             | 21        | ERRDR    |
| 87-B-7713 | VASAN ENTE  |    |       | \$826,820.00 | \$603,500.00 |             | 37        | ERRDR    |
| 87-B-7713 | RILEY CONE  |    |       | \$663,402.00 | \$603,500.00 |             | 10        | ERRDR    |
| 87-B-7713 | BLINDERMAN  |    |       | \$698,795.00 | \$603,500.00 |             | 16        | ERRDR    |
| 87-B-7713 | MARINO CON  |    |       | \$693,450.00 | \$603,500.00 |             | 15        | ERRDR    |
| 87-B-7713 | RITE-WAY L  |    |       | \$871,548.00 | \$603,500.00 |             | 44        | ERRDR    |
| 87-B-7720 | WELKS ENTE  | Y  |       | \$24,500.00  | \$25,245.00  |             | -3        | ERRDR    |
| 87-B-7720 | TMI COATIN  | Y  |       | \$35,425.00  | \$25,245.00  |             | 56        | ERRDR    |
| 87-B-7720 | UNIVERSAL   | Y  |       | \$37,313.00  | \$25,245.00  |             | 48        | ERRDR    |
| 87-B-7720 | A K SEAMLE  | ?  |       | \$24,915.00  | \$25,245.00  |             | -1        | ERRDR    |
| 87-B-7720 | ANDREW LAN  | Y  |       | \$68,000.00  | \$25,245.00  |             | 169       | ERRDR    |
| 87-B-7720 | ENERGY SHI  | Y  |       | \$32,575.00  | \$25,245.00  |             | 29        | ERRDR    |
| 87-B-7720 | WEATHER SY  | Y  |       | \$23,800.00  | \$25,245.00  |             | -6        | ERRDR    |
| 87-B-7723 | GLACIER PA  | Y  |       | \$54,445.00  | \$25,344.00  |             | -36       | ERRDR    |
| 87-B-7723 | NORTHLAND   | Y  |       | \$50,300.00  | \$25,344.00  |             | -40       | ERRDR    |
| 87-B-7731 | MAXIMUM PR  | Y  |       | \$340,225.75 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | ARLINGTON   | Y  |       | \$463,148.25 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | BI-STATE S  | Y  |       | \$471,375.00 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | SHEEHY SPE  | Y  |       | \$449,582.48 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | ATLANTIC P  | Y  |       | \$413,658.00 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | EAST CONTI  | Y  |       | \$510,161.00 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | GLOSS GUAR  | Y  |       | \$298,486.75 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | EASTERN MA  | Y  |       | \$467,469.00 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | SECURITY S  | Y  |       | \$571,990.00 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | RANDOM PRO  | Y  |       | \$597,473.85 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | S.T. & T SP | Y  |       | \$767,500.00 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | GRIFFIN SE  | Y  |       | \$445,279.85 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | BUSINESS S  | Y  |       | \$475,103.00 |              |             | ERROR     | ERRDR    |
| 87-B-7731 | THE SWANSO  | Y  |       | \$447,650.18 |              |             | ERROR     | ERRDR    |
| 87-B-7732 | ARLINGTON   | ?  |       | \$209,000.00 | \$160,202.00 |             | 30        | ERRDR    |
| 87-B-7732 | MARKHAM EL  | ?  |       | \$205,000.00 | \$160,202.00 |             | 28        | ERRDR    |
| 87-B-7732 | OPTIKUN CD  | ?  |       | \$237,788.00 | \$160,202.00 |             | 48        | ERRDR    |
| 87-B-7732 | WESTINGHOV  | ?  |       | \$219,875.00 | \$160,202.00 |             | 37        | ERRDR    |
| 87-B-7737 | AQUA FREP   |    |       | \$4,150.00   |              |             | ERROR     | ERRDR    |
| 87-B-7737 | DUBOIS CHE  |    |       | \$70,253.42  |              |             | ERROR     | ERRDR    |
| 87-B-7737 | HOTT CHEM   |    |       | \$16,724.00  |              |             | ERROR     | ERRDR    |
| 87-B-7738 | FIRST IMPR  |    |       | \$44,700.00  | \$42,000.00  |             | 6         | ERRDR    |
| 87-B-7738 | MC SPORT S  |    |       | \$45,922.00  | \$42,000.00  |             | 9         | ERRDR    |
| 87-B-7741 | AMERICAN C  | ?  |       | \$47,480.00  | \$45,287.00  |             | 5         | ERRDR    |
| 87-B-7741 | ENERGY SAV  | ?  |       | \$24,944.00  | \$45,287.00  |             | -45       | ERRDR    |
| 87-B-7741 | Gerald T.   | y  |       | \$58,700.00  | \$45,287.00  |             | 30        | ERRDR    |
| 87-B-7741 | JAMES MARE  | ?  |       | \$49,483.59  | \$45,287.00  |             | 9         | ERRDR    |
| 87-B-7741 | JAYEIL IND  | ?  |       | \$36,564.87  | \$45,287.00  |             | -18       | ERRDR    |
| 87-B-7741 | LYEBURN CON | ?  |       | \$62,500.00  | \$45,287.00  |             | 38        | ERRDR    |



| CONTRACT# | OFFEROR    | SE | S. O. B | BID          | GOV'T EST    | AWARD PRICE | % OF GOV' | % OF AWA |
|-----------|------------|----|---------|--------------|--------------|-------------|-----------|----------|
| 87-B-7741 | PARRIS & A | ?  |         | \$24,900.00  | \$45,287.00  |             | -45       | ERROR    |
| 87-B-7741 | STATE INSV | ?  |         | \$34,900.00  | \$45,287.00  |             | -23       | ERROR    |
| 87-B-7747 | ALINGTON E | ?  |         | \$356,747.00 | \$108,914.00 |             | 228       | ERROR    |
| 87-B-7747 | CREST SOUT | ?  |         | \$168,950.00 | \$108,914.00 |             | 51        | ERROR    |
| 87-B-7747 | INTEGRATED | ?  |         | \$140,945.00 | \$108,914.00 |             | 29        | ERROR    |
| 87-B-7747 | JCN MAINT  | ?  |         | \$168,278.25 | \$108,914.00 |             | 55        | ERROR    |
| 87-B-7747 | MARQUEZ EL | ?  |         | \$240,915.00 | \$108,914.00 |             | 121       | ERROR    |
| 87-B-7747 | MILL VALLE | ?  |         | \$295,698.00 | \$108,914.00 |             | 171       | ERROR    |
| 87-B-7747 | W H REED C | ?  |         | \$168,237.00 | \$108,914.00 |             | 54        | ERROR    |
| 87-B-7748 | SUNRUNNER  | Y  |         | \$23,300.00  | \$87,195.00  |             | -73       | ERROR    |
| 87-B-7748 | LAMBERT IN | ?  |         | \$24,967.92  | \$87,195.00  |             | -71       | ERROR    |
| 87-B-7748 | STAGER CON | ?  |         | \$24,875.00  | \$87,195.00  |             | -71       | ERROR    |
| 87-B-7748 | PHILLIPS N | ?  |         | \$24,850.00  | \$87,195.00  |             | -72       | ERROR    |
| 87-B-7748 | FOUR STAR  | ?  |         | \$44,752.00  | \$87,195.00  |             | -49       | ERROR    |
| 87-B-7748 | ARLINGTON  | ?  |         | \$73,450.00  | \$87,195.00  |             | -16       | ERROR    |
| 87-B-7748 | W H REED C | ?  |         | \$27,880.00  | \$87,195.00  |             | -68       | ERROR    |
| 87-B-7748 | MILL VALLE | ?  |         | \$57,050.00  | \$87,195.00  |             | -35       | ERROR    |
| 87-B-7748 | INTEGRATED | N  |         | \$30,630.00  | \$87,195.00  |             | -65       | ERROR    |
| 87-B-7748 | AMERICAN C | Y  |         | \$28,455.00  | \$87,195.00  |             | -67       | ERROR    |
| 87-B-7748 | CREST SOUT | Y  |         | \$24,285.00  | \$87,195.00  |             | -72       | ERROR    |
| 87-B-7748 | SEPT AR    | Y  |         | \$16,075.00  | \$87,195.00  |             | -82       | ERROR    |
| 87-B-7748 | JCN MAINT  | Y  |         | \$23,682.00  | \$87,195.00  |             | -73       | ERROR    |
| 87-B-7748 | MARQUEZ EL | Y  |         | \$47,450.00  | \$87,195.00  |             | -46       | ERROR    |
| 87-B-7758 | CENTURY AV | Y  |         | \$96,000.00  | \$88,000.00  |             | 9         | ERROR    |
| 87-B-7758 | H V ALLEN  | Y  |         | \$118,600.00 | \$88,000.00  |             | 35        | ERROR    |
| 87-B-7758 | SOMERS CD  | Y  |         | \$105,900.00 | \$88,000.00  |             | 20        | ERROR    |
| 87-B-7760 | HOD DISPOS |    |         | \$410,840.00 |              |             | ERROR     | ERROR    |
| 87-B-7760 | BEST SCAVE |    |         | \$411,083.81 |              |             | ERROR     | ERROR    |
| 87-B-7760 | HOD BROS   |    |         | \$380,387.24 |              |             | ERROR     | ERROR    |
| 87-B-7760 | NORTH SHOR |    |         | \$475,242.40 |              |             | ERROR     | ERROR    |
| 87-B-7763 | HOD BROS   |    |         | \$161,382.56 |              |             | ERROR     | ERROR    |
| 87-B-7763 | HOD DISP S |    |         | \$159,829.93 |              |             | ERROR     | ERROR    |
| 87-B-7763 | BEST SCAVE |    |         | \$197,657.10 |              |             | ERROR     | ERROR    |
| 87-B-7763 | ACE DISP S |    |         | \$211,876.00 |              |             | ERROR     | ERROR    |
| 87-B-7763 | NORTH SHOR |    |         | \$189,703.89 |              |             | ERROR     | ERROR    |
| 87-B-7765 | ALLIED BLA | Y  |         | \$60,384.40  | \$25,000.00  |             | 142       | ERROR    |
| 87-B-7765 | ALLIED BLA | Y  |         | \$60,384.40  | \$25,000.00  |             | 142       | ERROR    |
| 87-B-7765 | BITUMIOUS  | N  |         | \$25,368.00  | \$25,000.00  |             | 1         | ERROR    |
| 87-B-7765 | BITUMIOUS  | N  |         | \$25,368.00  | \$25,000.00  |             | 1         | ERROR    |
| 87-B-7768 | MERIDIAN C | Y  |         | \$153,200.00 | \$103,889.89 |             | 47        | ERROR    |
| 87-B-7773 | BENNETT &  | ?  |         | \$307,000.00 | \$318,159.00 |             | -4        | ERROR    |
| 87-B-7773 | E H WOODS  | ?  |         | \$252,425.00 | \$318,159.00 |             | -21       | ERROR    |
| 87-B-7773 | ELITE ROOF | N  |         | \$276,000.00 | \$318,159.00 |             | -13       | ERROR    |
| 87-B-7773 | KOVILIC CD | ?  |         | \$396,795.00 | \$318,159.00 |             | 25        | ERROR    |
| 87-B-7773 | M M SCHRAZ | ?  |         | \$257,496.00 | \$318,159.00 |             | -19       | ERROR    |
| 87-B-7776 | J H BOWMAN | Y  |         | \$45,653.00  | \$51,845.00  |             | -12       | ERROR    |
| 87-B-7776 | J H BOWMAN | Y  |         | \$45,653.00  | \$51,845.00  |             | -12       | ERROR    |
| 87-B-7776 | SEGA INC   | Y  |         | \$54,327.96  | \$51,845.00  |             | 5         | ERROR    |
| 87-B-7776 | SEGA INC   | Y  |         | \$54,327.96  | \$51,845.00  |             | 5         | ERROR    |
| 87-B-7777 | F.D. & L.  |    |         | \$64,116.00  | \$93,100.00  |             | 1         | ERROR    |
| 87-B-7777 | KENNEDY HT |    |         | \$99,795.00  | \$93,100.00  |             | 7         | ERROR    |
| 87-B-7777 | G.C. SHAW  |    |         | \$119,187.00 | \$93,100.00  |             | 28        | ERROR    |



| CONTRACT# | OFFEROR    | SB | S.D.B | BID          | GOV'T EST    | AWARD PRICE  | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|--------------|--------------|--------------|-----------|----------|
| 87-B-7777 | ST. LOUIS  | Y  |       | \$106,306.00 | \$93,100.00  |              | 14        | ERROR    |
| 87-B-7777 | LEE MECHAN |    |       | \$128,454.00 | \$93,100.00  |              | 36        | ERROR    |
| 87-B-7777 | HEATROL SE | Y  |       | \$121,814.00 | \$93,100.00  |              | 31        | ERROR    |
| 87-B-7777 | AIR MASTER | Y  |       | \$120,493.00 | \$93,100.00  |              | 38        | ERROR    |
| 87-B-7777 | F A ENTERP | Y  |       | \$106,885.00 | \$93,100.00  |              | 15        | ERROR    |
| 87-B-7781 | BENNETTA B | N  |       | \$194,866.00 | \$386,965.00 | \$194,866.00 | -50       | 0        |
| 87-B-7781 | CROTHER EN | N  |       | \$282,500.00 | \$386,965.00 | \$194,866.00 | -40       | 19       |
| 87-B-7781 | DUNCAN & S | N  |       | \$228,790.00 | \$386,965.00 | \$194,866.00 | -41       | 17       |
| 87-B-7781 | E & H WOOD | N  |       | \$247,060.00 | \$386,965.00 | \$194,866.00 | -36       | 27       |
| 87-B-7781 | ELITE ROOF | Y  |       | \$197,629.00 | \$386,965.00 | \$194,866.00 | -49       | 1        |
| 87-B-7781 | KOVILIC CD | N  |       | \$352,792.00 | \$386,965.00 | \$194,866.00 | -9        | 81       |
| 87-B-7781 | MM SCHRAHZ | N  |       | \$246,744.00 | \$386,965.00 | \$194,866.00 | -36       | 27       |
| 87-B-7781 | SPECIALITY | N  |       | \$220,978.00 | \$386,965.00 | \$194,866.00 | -43       | 13       |
| 87-B-7781 | VALSDORF R | N  |       | \$242,000.00 | \$386,965.00 | \$194,866.00 | -37       | 24       |
| 87-B-7790 | GEORGE C.  | Y  |       | \$87,000.00  | \$52,891.00  |              | 64        | ERROR    |
| 87-B-7790 | R. E. SMIT | Y  |       | \$100,000.00 | \$52,891.00  |              | 89        | ERROR    |
| 87-B-7790 | DALTON KIL | Y  |       | \$95,683.00  | \$52,891.00  |              | -33       | ERROR    |
| 87-B-7790 | CONSTRUCTI | Y  |       | \$81,725.00  | \$52,891.00  |              | 55        | ERROR    |
| 87-B-7790 | ASTUTE ENE | Y  |       | \$24,307.00  | \$52,891.00  |              | -54       | ERROR    |
| 87-B-7792 | KOVILIC CD | Y  |       | \$67,750.00  | \$39,000.00  |              | 74        | ERROR    |
| 87-B-7792 | MERIDIAN C | Y  |       | \$59,690.00  | \$39,000.00  |              | 53        | ERROR    |
| 87-B-7801 | ADED SERVI | N  |       | \$79,800.00  |              |              | ERROR     | ERROR    |
| 87-B-7801 | ECDUPE IN  | N  |       | \$150,473.40 |              |              | ERROR     | ERROR    |
| 87-B-8130 | BAYFIELD C | Y  |       | \$100,650.00 | \$62,521.88  |              | 61        | ERROR    |
| 87-B-8130 | HOFFMAN &  | Y  |       | \$69,380.00  | \$62,521.88  |              | 11        | ERROR    |
| 87-B-8130 | HOWARD J.  | Y  |       | \$69,690.00  | \$62,521.88  |              | 43        | ERROR    |
| 87-B-8130 | OSCAR BERG | Y  |       | \$96,312.00  | \$62,521.88  |              | 54        | ERROR    |
| 87-B-8130 | PARIS CONT | Y  |       | \$91,990.00  | \$62,521.88  |              | 31        | ERROR    |
| 87-B-8130 | SOMERS CD  | Y  | Y     | \$115,135.00 | \$62,521.88  |              | 84        | ERROR    |
| 87-B-8131 | HOFFMAN &  | Y  |       | \$0.00       | \$65,255.00  |              | -100      | ERROR    |
| 87-B-8131 | JOEL KENNE | Y  |       | \$138,300.00 | \$65,255.00  |              | 112       | ERROR    |
| 87-B-8131 | A & K CONS | Y  | Y     | \$65,000.00  | \$65,255.00  |              | 6         | ERROR    |
| 87-B-8240 | LYMER CONN | Y  |       | \$46,765.00  | \$60,400.00  | \$30,989.00  | 28        | 51       |
| 87-B-8240 | T & G CONS | Y  |       | \$30,985.00  | \$60,400.00  | \$30,989.00  | -15       | 0        |
| 87-B-8244 | GRAVES PLB | Y  |       | \$63,536.00  | \$60,600.00  | \$55,400.00  | 5         | 15       |
| 87-B-8244 | TRI COUNTY | Y  |       | \$55,400.00  | \$60,600.00  | \$55,400.00  | -9        | 0        |
| 87-B-8244 | NEIDIGH CD | Y  |       | \$59,689.00  | \$60,600.00  | \$55,400.00  | -2        | 8        |
| 87-B-8244 | MOORE HTG  | Y  |       | \$78,499.00  | \$60,600.00  | \$55,400.00  | 30        | 42       |
| 87-B-8244 | SARGENT CD | Y  |       | \$58,134.00  | \$60,600.00  | \$55,400.00  | -4        | 5        |
| 87-B-8264 | MESKINA    | Y  |       | \$336,745.00 | \$347,400.00 |              | -3        | ERROR    |
| 87-B-8264 | GRAVES PLU | Y  |       | \$304,304.00 | \$347,400.00 |              | -12       | ERROR    |
| 87-B-8264 | PEERLESS P | Y  |       | \$464,464.00 | \$347,400.00 |              | 34        | ERROR    |
| 87-B-8264 | HARRELL ME | Y  |       | \$315,664.00 | \$347,400.00 |              | -9        | ERROR    |
| 87-B-8264 | MOORE HTG  | Y  |       | \$338,338.00 | \$347,400.00 |              | -2        | ERROR    |
| 87-B-8264 | TRIANGLE & | Y  |       | \$325,745.00 | \$347,400.00 |              | -6        | ERROR    |
| 87-B-8264 | PEERLESS P | Y  |       | \$379,973.00 | \$379,227.00 |              | 0         | ERROR    |
| 87-B-8298 | DARHOLZ EX | Y  |       | \$183,688.00 | \$305,600.00 |              | -40       | ERROR    |
| 87-B-8298 | SAM OXLEY  | Y  |       | \$169,433.00 | \$305,600.00 |              | -45       | ERROR    |
| 87-B-8298 | W.D. BARTL | Y  |       | \$189,435.90 | \$305,600.00 |              | -38       | ERROR    |
| 87-B-8298 | DAVID ENG  | Y  |       | \$253,000.00 | \$305,600.00 |              | -17       | ERROR    |
| 87-C-4702 | OPTIMUN CD | Y  |       | \$44,838.00  | \$30,740.00  |              | 45        | ERROR    |
| 87-C-4702 | ROE G RIPP | Y  |       | \$72,215.00  | \$30,740.00  |              | 154       | ERROR    |





| CONTRACT# | OFFEROR    | SB | S.D.B | BID            | GOV'T EST      | AWARD PRICE | % OF GOV' | % OF AWA |
|-----------|------------|----|-------|----------------|----------------|-------------|-----------|----------|
| 87-C-5007 | FLETCHER-H | Y  |       | \$269,065.00   | \$184,549.00   |             | 46        | ERROR    |
| 87-C-5007 | PARKS & BI | Y  |       | \$247,211.00   | \$184,549.00   |             | 34        | ERROR    |
| 87-C-5007 | RIFFER INC | Y  |       | \$248,111.00   | \$184,549.00   |             | 34        | ERROR    |
| 87-C-5008 | MIED CONST | Y  |       | \$256,294.00   | \$184,549.00   |             | 39        | ERROR    |
| 87-C-5008 | MAGNUM INC | Y  |       | \$222,294.00   | \$184,549.00   |             | 75        | ERROR    |
| 87-C-5008 | PKM CONST  | Y  |       | \$169,645.00   | \$184,549.00   |             | 3         | ERROR    |
| 87-C-7770 | MET CON    | ?  |       | \$35,003.00    | \$34,500.00    |             | 1         | ERROR    |
| 87-C-7770 | STEEL STRU | Y  |       | \$34,990.00    | \$34,500.00    |             | 1         | ERROR    |
| 87-D-2642 | NAT'L CORP | Y  |       | \$14,350.00    |                |             | ERROR     | ERROR    |
| 87-D-3408 | MAXIMUM PR | N  |       | \$230,732.00   |                |             | ERROR     | ERROR    |
| 87-D-3408 | COMMAND SE | Y  |       | \$184,550.00   |                |             | ERROR     | ERROR    |
| 87-D-3408 | THE SWANSD | Y  |       | \$169,973.44   |                |             | ERROR     | ERROR    |
| 87-D-3408 | RELIANCE C | Y  |       | \$174,326.00   |                |             | ERROR     | ERROR    |
| 88-B-0013 | J.L. NAGIN | Y  |       | \$2,947,000.00 | \$2,831,000.00 |             | 4         | ERROR    |
| 88-B-0013 | CARLIN CON | Y  |       | \$3,056,903.00 | \$2,831,000.00 |             | 3         | ERROR    |
| 88-B-0013 | C.F. KLEWI | Y  |       | \$221,890.00   | \$2,831,000.00 |             | -59       | ERROR    |
| 88-B-0297 | WM F. GAVI | Y  |       | \$199,908.00   | \$206,200.00   |             | -6        | ERROR    |
| 88-B-0297 | GASTAR COR | Y  |       | \$196,000.00   | \$206,200.00   |             | -5        | ERROR    |
| 88-B-0297 | DANTE'S CD | Y  |       | \$134,255.00   | \$206,200.00   |             | -35       | ERROR    |
| 88-B-0297 | MAGNUM INC | Y  |       | \$151,000.00   | \$206,200.00   |             | -27       | ERROR    |
| 88-B-0297 | PIONEER CD | Y  |       | \$173,000.00   | \$206,200.00   |             | -15       | ERROR    |
| 88-B-0297 | FARINELLI  | Y  |       | \$219,832.00   | \$206,200.00   |             | 7         | ERROR    |
| 88-B-0297 | SENWALT IN | Y  |       | \$117,840.00   | \$206,200.00   |             | -43       | ERROR    |
| 88-B-0297 | W.F. DICKI | Y  |       | \$143,740.00   | \$206,200.00   |             | -28       | ERROR    |
| 88-B-0297 | COUNSEL CD | Y  |       | \$159,200.00   | \$206,200.00   |             | -26       | ERROR    |
| 88-B-5101 | PYRD INST  | Y  |       | \$129,392.00   | \$103,590.42   |             | 25        | ERROR    |
| 88-B-5101 | J.P. KECHA | Y  |       | \$158,265.00   | \$103,590.42   |             | 53        | ERROR    |
| 88-B-5101 | ASSOCIATED | Y  |       | \$128,700.00   | \$103,590.42   |             | 24        | ERROR    |
| 88-B-5101 | DEL-VAL ME | Y  |       | \$177,181.00   | \$103,590.42   |             | 71        | ERROR    |
| 88-B-5101 | F.M. NORTH | Y  |       | \$129,517.00   | \$103,590.42   |             | 25        | ERROR    |
| 88-B-5101 | PETERSON S | Y  |       | \$149,290.00   | \$103,590.42   |             | 44        | ERROR    |
| 88-B-5101 | SCHAEFFER  | Y  |       | \$84,496.00    | \$103,590.42   |             | -18       | ERROR    |
| 88-B-5101 | ACME FLNG  | Y  |       | \$121,481.00   | \$103,590.42   |             | 17        | ERROR    |
| 88-B-5101 | H.V. ALLEN | Y  |       | \$171,000.00   | \$103,590.42   |             | 65        | ERROR    |
| 88-B-5101 | K.H.M. DSG | Y  |       | \$177,400.00   | \$103,590.42   |             | 71        | ERROR    |
| 88-B-5101 | F.W. NESPE | Y  |       | \$112,000.00   | \$103,590.42   |             | 8         | ERROR    |
| 88-B-5101 | SARED INC  | Y  |       | \$83,933.00    | \$103,590.42   |             | -13       | ERROR    |
| 88-B-5101 | TAMI-GITHE | Y  |       | \$131,500.00   | \$103,590.42   |             | 27        | ERROR    |
| B-7701    | SERVICE CD | Y  |       | \$5,808.00     |                |             | ERROR     | ERROR    |
| B-7701    | MINE MAID  | Y  |       | \$25,918.00    |                |             | ERROR     | ERROR    |
| B-7701    | ? ENGINEER | N  |       | \$4,656.74     |                |             | ERROR     | ERROR    |
| B-7701    | JADE SERVI | N  |       | \$14,458.65    |                |             | ERROR     | ERROR    |
| B-7701    | INTEGRITY  | N  |       | \$29,927.00    |                |             | ERROR     | ERROR    |
| B-7701    | ?          | N  |       | \$11,212.25    |                |             | ERROR     | ERROR    |
| B-7701    | THE ENTON  | Y  |       | \$23,104.80    |                |             | ERROR     | ERROR    |
| B-7701    | INDUSTRIAL | N  |       | \$28,920.15    |                |             | ERROR     | ERROR    |



APPENDIX F  
CONTRACT GROWTH ANALYSIS







CONTRACT GROWTH  
UNRESTRICTED  
COMPETITION

FROM: NORTHERN DIVISION CMS DATABASE 1981-1988

- ONLY CONTRACTS PROVEN TO BE AWARDED TO LARGE BUSINESSES WERE INCLUDED IN ANALYSIS. SEVERAL WERE ADVERTISED AS UNRESTRICTED BUT WERE AWARDED TO SMALL BUSINESS
- ALL CONTRACTS HAVING QUESTIONABLE CHANGES (CUSTOMER REQUESTED AND REDUCED SCOPE TO STAY WITHIN FUNDING) WERE NOT INCLUDED IN THE ANALYSIS
- AVERAGE CONTRACT COST \$3.6 Million

AVERAGE CONTRACT  
\$ GROWTH

$$n = 23 \qquad \sum x^2 = 2620.56$$

$$\sum x = 157.82 \qquad (\sum x)^2 = 24907$$

$$\bar{x} = 6.86\% \text{ of Award Price}$$

$$s^2 = \frac{2620.56 - \frac{24907}{23}}{22} = 69.89$$

$$s = 8.36$$

NUMBER OF  
CHANGES

$$n = 23 \text{ Contracts} \qquad \sum x^2 = 9103$$

$$\sum x = 323 \text{ Changes} \qquad (\sum x)^2 = 104329$$

$$\bar{x} = \frac{323}{23} = 14 \text{ Changes per Cont.}$$

$$s^2 = \frac{9103 - \frac{104329}{23}}{22} = 207.6$$

$$s = 14.4$$

AVERAGE CONTRACT COST \$3.60 Million

$$\text{AVERAGE MODIFICATION COST} = \frac{\$3,600,000(0.0686)}{14.4}$$

$$= \$17150$$





| NUMBER | AWARD \$ | CONTRACT | GROWTH     | ANALYSIS | TITLE II CONTRACTS |         |
|--------|----------|----------|------------|----------|--------------------|---------|
|        |          | MOD #    | % OF AWARD | X7X2     | # OF MODS          | MODSXX2 |
| 1      | 045526   | 28800    | 10.98      | 107.87   | 9                  | 9       |
| 2      | 13481300 | 412727   | 3.07       | 3.41     | 26                 | 676     |
| 3      | 1228441  | -6134    | -0.50      | 0.25     | 9                  | 81      |
| 4      | 1172000  | 28035    | 2.39       | 5.73     | 8                  | 64      |
| 5      | 1429821  | 79130    | 5.54       | 30.66    | 6                  | 36      |
| 6      | 779000   | 11205    | 1.44       | 2.07     | 2                  | 4       |
| 7      | 227000   | -2064    | -0.51      | 0.93     | 2                  | 4       |
| 8      | 3200000  | 47211    | 1.48       | 2.18     | 5                  | 25      |
| 9      | 1515000  | 27100    | 1.68       | 2.91     | 4                  | 16      |
| 10     | 446898   | 55294    | 12.37      | 152.32   | 10                 | 100     |
| 11     | 681681   | 0        | 0.00       | 0.00     | 1                  | 1       |
| 12     | 1820577  | -15944   | -1.12      | 1.25     | 4                  | 16      |
| 13     | 1117000  | 2765     | 0.25       | 0.66     | 2                  | 8       |
| 14     | 53910    | 0        | 0.00       | 0.00     | 1                  | 1       |
| 15     | 129924   | 22000    | 16.96      | 261.73   | 2                  | 4       |
| 16     | 1484400  | 38310    | 2.58       | 6.66     | 5                  | 25      |
| 17     | 3160000  | 227696   | 7.16       | 51.07    | 7                  | 49      |
| 18     | 4438840  | -21335   | -0.48      | 0.33     | 14                 | 136     |
| 19     | 2046651  | 74188    | 3.62       | 13.10    | 20                 | 400     |
| 20     | 148000   | 3500     | 2.35       | 5.55     | 1                  | 1       |
| 21     | 3110917  | 144575   | 4.65       | 21.60    | 15                 | 361     |
| 22     | 197300   | 18000    | 9.12       | 93.23    | 1                  | 1       |
| 23     | 403808   | 10689    | 3.10       | 9.60     | 2                  | 4       |
| 24     | 2178415  | 144955   | 6.64       | 44.04    | 16                 | 256     |
| 25     | 298391   | 3779     | 1.50       | 2.56     | 5                  | 25      |
| 26     | 48475    | -849     | -0.77      | 0.59     | 2                  | 4       |
| 27     | 340750   | 18886    | 5.54       | 30.72    | 1                  | 1       |
| 28     | 567000   | 6654.03  | 1.17       | 1.38     | 2                  | 4       |
| 29     | 119000   | 600.00   | 0.50       | 0.55     | 1                  | 1       |
| 30     | 264000   | 0.00     | 0.00       | 0.00     | 0                  | 0       |
| 31     | 1454597  | 15787.00 | 1.05       | 1.18     | 2                  | 4       |
| 32     | 975367   | -9755    | -1.00      | 1.00     | 5                  | 25      |
| 33     | 257255   | -29      | -0.01      | 0.00     | 3                  | 9       |
| 34     | 67800    | 0        | 0.00       | 0.00     | 3                  | 9       |
| 35     | 176305   | 6591     | 2.37       | 5.64     | 4                  | 16      |
| 36     | 68304    | 17911    | 17.91      | 220.78   | 4                  | 16      |
| 37     | 847000   | 143690   | 16.95      | 287.75   | 8                  | 64      |
| 38     | 59500    | -892     | -1.40      | 1.55     | 1                  | 1       |
| 39     | 464587   | 7300     | 1.58       | 2.82     | 3                  | 9       |
| 40     | 209000   | 11932    | 5.71       | 32.59    | 3                  | 9       |
| 41     | 145000   | 11205    | 7.70       | 59.72    | 5                  | 25      |



| NUMBER | AWARD \$ | CONTRACT | GROWTH     | ANALYSIS | (Continued) |         |
|--------|----------|----------|------------|----------|-------------|---------|
|        |          | MOD \$   | % OF AWARD | XX#2     | # OF MODS   | MODS#*C |
| 42     | 197000   | -12874   | -6.28      | 28.45    | 3           | 9       |
| 43     | 218899   | -7700    | -3.53      | 12.43    | 10          | 100     |
| 44     | 727841   | 15238    | 2.09       | 4.98     | 2           | 4       |
| 45     | 498000   | 3888     | 0.77       | 0.59     | 1           | 1       |
| 46     | 165699   | 0        | 0.00       | 0.00     | 2           | 4       |
| 47     | 319957   | 10667    | 3.34       | 11.18    | 4           | 16      |
| 48     | 188800   | 0        | 0.00       | 0.00     | 1           | 1       |
| 49     | 59450    | 0        | 0.00       | 0.00     | 2           | 4       |
| 50     | 196161   | 1791     | 0.91       | 0.83     | 1           | 1       |
| 51     | 640000   | 18921    | 2.96       | 9.74     | 3           | 9       |
| 52     | 24500    | 0        | 0.00       | 0.00     | 5           | 25      |
| 53     | 171654   | 17718    | 10.32      | 100.54   | 0           | 0       |
| 54     | 127190   | 741      | 0.58       | 0.34     | 4           | 16      |
| 55     | 49439    | 0        | 0.00       | 0.00     | 2           | 4       |
| 56     | 2696000  | 66145    | 2.45       | 6.02     | 2           | 4       |
| 57     | 198500   | -3751    | -1.90      | 2.68     | 3           | 9       |
| 58     | 3089000  | 27188    | 0.88       | 0.78     | 15          | 150     |
| 59     | 464049   | 7570     | 1.63       | 2.66     | 5           | 9       |
| 60     | 2934577  | 87751    | 2.99       | 9.94     | 15          | 225     |
| 61     | 214127   | 1225     | 0.57       | 0.83     | 6           | 24      |
| 62     | 955700   | 0        | 0.00       | 0.00     | 7           | 49      |
| 63     | 47640    | 0        | 0.00       | 0.00     | 4           | 16      |
| 64     | 89150    | 0        | 0.00       | 0.00     | 0           | 0       |
| 65     | 235168   | 0        | 0.00       | 0.00     | 0           | 0       |
| 66     | 32789    | 0        | 0.00       | 0.00     | 0           | 0       |
| 67     | 67888    | 0        | 0.00       | 0.00     | 0           | 0       |
| 68     | 28990    | 0        | 0.00       | 0.00     | 0           | 0       |
| 69     | 256010   | 7943     | 3.10       | 9.68     | 1           | 1       |
| 70     | 187818   | 0        | 0.00       | 0.00     | 1           | 1       |
| 71     | 96538    | -3869    | -4.01      | 15.05    | 1           | 1       |
| 72     | 112310   | 1900     | 1.69       | 2.57     | 3           | 9       |
| 73     | 50999    | 0        | 0.00       | 0.00     | 2           | 9       |
| 74     | 55400    | 0        | 0.00       | 0.00     | 0           | 0       |

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885898 99      24256.04      2.29      1322.13      929      3390  
SUM X=      163.32



| NUMBER | AWARD \$   | CONTRACT  | GROWTH-    | ANALYSIS                       | # OF MODS | MODS**2 |
|--------|------------|-----------|------------|--------------------------------|-----------|---------|
|        |            | MOD \$    | % OF AWARD | UNRESTRICTED CONTRACTS<br>X**2 |           |         |
| 1      | 507459     | 629661    | 11.06      | 102.99                         | 34        | 1159.00 |
| 2      | 28170000   | 1015877   | 3.62       | 13.11                          | 42        | 1764.00 |
| 3      | 6840323    | 73957     | 1.08       | 1.17                           | 12        | 144.00  |
| 4      | 3759495    | 204321    | 5.39       | 29.07                          | 13        | 169.00  |
| 5      | 9333272    | 201702    | 2.16       | 4.57                           | 23        | 529.00  |
| 6      | 5591300    | 135167    | 5.23       | 27.87                          | 25        | 625.00  |
| 7      | 449308     | 12931     | 2.87       | 8.23                           | 2         | 4.00    |
| 8      | 432310     | 25953     | 6.01       | 35.09                          | 8         | 64.00   |
| 9      | 584100     | 76235     | 13.05      | 170.36                         | 13        | 169.00  |
| 10     | 417352     | 43868     | 10.53      | 110.99                         | 6         | 36.00   |
| 11     | 2352000    | 30850     | 14.63      | 214.14                         | 10        | 100.00  |
| 12     | 1157000    | 31172     | 2.67       | 7.13                           | 36        | 1296.00 |
| 13     | 1735500    | 33604     | 1.81       | 7.91                           | 11        | 121.00  |
| 14     | 769166     | 73044     | 9.50       | 90.13                          | 21        | 441.00  |
| 15     | 7029195    | 708265    | 10.09      | 101.76                         | 58        | 3364.00 |
| 16     | 396000     | 124914    | 12.61      | 158.36                         | 8         | 64.00   |
| 17     | 7370000    | 1558055   | 24.71      | 1204.72                        | 3         | 9.00    |
| 18     | 133000     | 4132      | 2.17       | 4.72                           | 3         | 9.00    |
| 19     | 58100      | 0         | 0.00       | 0.00                           | 1         | 1.00    |
| 20     | 112600     | -7957     | -7.08      | 50.16                          | 2         | 4.00    |
| 21     | 39900      | 0         | 0.00       | 0.00                           | 1         | 1.00    |
| 22     | 128000     | 20454     | 15.98      | 255.35                         | 5         | 25.00   |
| 23     | 194866     | -2582     | -1.33      | 1.76                           | 2         | 4.00    |
| <hr/>  |            |           |            |                                |           |         |
|        | 3604879.95 | 267268.43 | 6.81       | 2620.56                        | 323       | 9103.61 |
|        |            | SUM %     | 157.62     |                                |           |         |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/83

DOLAR RANGE OF AWARD (\$300) <

61

JUN30

ROCDUC:

| ROCDUC  | DESCRIPTION               | BDD    | AWARD<br>AMOUNT | CUPPRI-AMOUNT | CUPPRI        | LAST<br>MOD VBR |
|---------|---------------------------|--------|-----------------|---------------|---------------|-----------------|
| 73562   | INSTAL - SURGE TANK       | 880325 | 24,875          | 2,524         | 27,503        | -J1             |
| 73565   | SITE PREPARTION B-427     | 880531 | 75,155          | 5,281         | 82,437        | -02             |
| 73670   | RPRS TO WASTE WATER       | 890423 | 13,903          |               | 13,903        |                 |
| 73700   | REPL. EMER. EXIT DOORS    | 820531 | 15,888          |               | 15,888        |                 |
| 73313   | INSTAL - EARTH COVER      | 871218 | 13,583          |               | 13,583        |                 |
| 72568   | DRJM RACKS STORAGE AREA P | 871116 | 13,503          |               | 13,503        |                 |
| 72584   | ASBESTOS REMOVAL          | 871130 | 15,803          |               | 15,803        |                 |
| 72714   | RMV SKYLIGHT RPR-RJCF     | 871213 | 23,893          |               | 23,893        |                 |
| 31650   | ASBESTOS REMOVAL, 30-61 A | 890117 | 443,373         |               | 443,373       | -J3             |
| 31551   | ACQUSTICAL CEILING INST-  | 890120 | 23,303          | 367-          | 19,351        | -02             |
| 31565   | RPR ELEVATOR B-643, ETC   | 890217 | 14,217          |               | 14,217        |                 |
| 32508   | OIL PIPELINE HARPSWELL C  | 871115 | 41,385          | 4,532-        | 35,754        | -02             |
| 32605   | ASBESTOS REMOVAL          | 890129 | 14,583          |               | 14,583        |                 |
| 32607   | DEADBO-T LOCKS            | 890426 | 15,921          |               | 15,921        |                 |
| 32915   | CARBON DIOXIDE FIRE EXT.  | 880332 | 11,203          | 323           | 11,523        | -02             |
| 33004   | REPL AIR CONDENSERS       | 890526 | 14,925          |               | 14,925        |                 |
| 33347   | RPR PARTS / ENGINE #5     | 880428 | 14,463          |               | 14,463        |                 |
| 33363   | MOVE SKID MOUNTED GENERAT | 871130 | 14,533          | 1,533-        | 12,933        | -01             |
| 33709   | INSTAL - OF OIL DRI> PAYS | 880531 | 24,893          |               | 24,893        |                 |
| 33712   | SAND/SEAL OAK FLOORS      | 880232 | 13,303          |               | 13,303        |                 |
| 33722   | INSTAL - FLOOR TILES #84  | 890237 | 18,912          |               | 18,912        |                 |
| 33826   | SAND & SEAL OAK FLOORS J  | 890526 | 12,803          |               | 12,803        |                 |
| 34100   | INTERIM FAC. MNT. REPRS.  | 880324 | 24,263          |               | 24,263        |                 |
| 34280   | INSTAL - ELECTR. DRYERS   | 890217 | 14,275          | 815           | 15,393        | -01             |
| 35657   | INSTAL - FIREPROOFING     | 890524 | 21,785          |               | 21,785        |                 |
| 35659   | RENOVATE AIRLOCKS         | 880125 | 15,003          |               | 15,003        |                 |
| 35663   | REMOVE EXISTING LETTERING | 890424 | 11,763          |               | 11,763        |                 |
| 35664   | INSTAL - SUBMERSIBLE PJMP | 880317 | 15,384          |               | 16,384        |                 |
| 35201   | DRAINAGE FACILITIES ORTS. | 990210 | 12,095          |               | 12,095        |                 |
| 35371   | BLDG. ELEVATOR REPRS.     | 880215 | 13,253          |               | 10,253        |                 |
| 356406  | ASBESTOS REMOVAL          | 880524 | 11,435          | 1,505         | 11,435        | -02             |
| 33204   | REPLACE CRJAN TILE        | 880126 | 12,203          |               | 13,708        |                 |
| 33217   | WATER SYSTEM, BLDG 151 M  | 871228 | 12,603          |               | 12,603        |                 |
| 33221   | REPL. ADHERED EPDM ROOF   | 980111 | 14,355          |               | 14,355        |                 |
| 33222   | HIGHWAY REFLECTORS        | 620228 | 23,985          |               | 23,985        |                 |
| 33232   | REPL. OF FLOOR COVERING   | 890527 | 14,703          | 1,903         | 15,503        | -01             |
| 33364   | APPLY PRIME COAT          | 880526 | 15,665          |               | 16,665        |                 |
| 33364   |                           | 710422 | 21,565          | 3,332         | 30,283        | -02             |
| FFD TOT |                           |        | 1,005,823,204   | 83,731,334    | 1,089,521,509 |                 |

PAYMDF-STAFF1.CNT-





CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 37/J5/93

DOLLAR RANGE OF AWARD (\$300) <

60

68JJN30

| PROCD0C | DESCRIPTION                | POD    | AWARD<br>AMOUNT | MOD AMT<br>CURPRI-AWARD | CURPRI  | LAST<br>MOD NBR |
|---------|----------------------------|--------|-----------------|-------------------------|---------|-----------------|
| 877270  | ALTERATIONS TO 37030-2 C   | 870307 | 12,300          |                         | 12,800  | -01             |
| 877271  | SECURITY ADD'S TO FENCE C  | 890304 | 15,443          |                         | 16,443  |                 |
| 877283  | INSTAL COMPUTER EQUIPMENTS | 890423 | 112,310         | 1,800                   | 114,110 | -03             |
| 877304  | 3 MONTH LANDFILL           | 870310 | 13,775          |                         | 13,775  |                 |
| 877316  | CONST. TRAC FOUNDATIONS P  | 870428 | 62,500          |                         | 62,500  | -05             |
| 877324  | SEAL COAT RUNWAY           | 871028 | 229,925         |                         | 315,471 |                 |
| 877350  | INSTL EYEWASHER & SHOWERS  | 870422 | 11,290          |                         | 11,290  |                 |
| 877357  | RMV EXISTING CEILING FANSH | 870410 | 13,437          |                         | 15,437  |                 |
| 877358  | KITCHEN QTRS A             | 871006 | 23,199          | 1,590                   | 24,879  | -02             |
| 877364  | PROVISION OF LANDFILL L    | 870530 | 13,775          |                         | 13,775  |                 |
| 877342  | REPLACE DOCK LEVELERS      | 871026 | 13,473          |                         | 13,473  |                 |
| 877371  | REPLACE HOT WATER HEATER   | 870919 | 16,390          |                         | 16,390  |                 |
| 877379  | REPR. CLOSED CIRCUIT TV HG | 890105 | 16,500          |                         | 16,500  |                 |
| 877701  | EXT. PNTG. FAX HSS         | 870909 | 17,658          |                         | 17,658  |                 |
| 877719  | SMALL CRAFT BOAT HOJSE V   | 850212 | 47,550          | 5,274                   | 481,924 | -05             |
| 878308  | ROOF REPAIR ELEMENT-B,1212 | 890310 | 19,859          | 2,532                   | 192,284 | -02             |
| 878315  | MOORING EYES TAKIMWAY J    | 870904 | 15,413          | 3,215                   | 19,629  | -02             |
| 878319  | ROICC OFFICE RENOV         | 871235 | 19,930          |                         | 19,980  |                 |
| 878322  | REPAIR MANHOLE 1-1         | 870729 | 13,619          |                         | 13,619  |                 |
| 878389  | PERFORM ROOF REPAIRS       | 890210 | 13,227          | 2,806                   | 15,231  | -02             |
| 878389  | INSTAL FENCING             | 890210 | 17,855          |                         | 17,855  |                 |
| 878502  | FAX HSS-REPLACE SEWER -INM | 871237 | 96,409          | 2,000                   | 95,409  | -01             |
| 878504  | INSTAL DIRECT BURIAL S     | 830318 | 12,000          | 500                     | 12,500  | -01             |
| 878505  | REMOVA. OF CARPET          | 871112 | 31,250          |                         | 31,250  |                 |
| 878608  | PROTECTIVE ROOF CONTINS W  | 890104 | 13,150          |                         | 13,150  |                 |
| 878608  | REWIRE CAD/CAM ROOM        | 870907 | 16,985          |                         | 16,985  |                 |
| 878621  | EXIT DOORS                 | 871230 | 13,750          | 2,000                   | 15,750  | -01             |
| 878621  | CONSTRJCT ROADWAY 3-2255 T | 871006 | 45,843          |                         | 45,843  |                 |
| 878623  | MDD. OF STORAGE MAGAZINE T | 890404 | 15,700          |                         | 15,700  |                 |
| 878623  | INSTAL PARTITION WALLS S   | 871209 | 30,989          |                         | 30,989  |                 |
| 878640  | REPL. COMPUTER RM FLOOR T  | 830518 | 22,078          |                         | 22,078  |                 |
| 878643  | RESTROOMS ALTERATIONS T    | 871109 | 55,400          | 1,790                   | 55,400  | -01             |
| 878644  | REPL. AIR HANDLING UNIT M  | 890126 | 12,000          |                         | 12,000  |                 |
| 878640  | SEWER -LINE PLUG. 2900 M   | 871202 | 14,500          |                         | 14,500  |                 |
| 878657  | RENOVATE ENTRANCE 3-00-13C | 871016 | 23,740          | 5,262                   | 25,982  | -02             |
| 878661  | ROOFING REPAIR PLUG. 27JH  | 871105 | 12,400          |                         | 12,400  |                 |
| 878680  | INSTAL GUARDRAIL H         | 871210 | 16,950          |                         | 16,950  |                 |
| 878680  | REPAIR GUINER HARVE S      | 871203 | 19,894          |                         | 19,894  |                 |
| 878617  | INSTAL DATA CABLE          | 871239 | 11,867          | 235                     | 12,103  | -01             |
| 878657  | REPLACE TRANSFORMER #175 C | 871228 |                 |                         |         |                 |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| PRCDDOC | RUN DATE: | DESCRIPTION                | HOD    | AWARD AMOUNT | MOD AMT CURPRI-AWARD | CURPRI  | LAST MOD Y |
|---------|-----------|----------------------------|--------|--------------|----------------------|---------|------------|
| 877022  | 07/05/95  | REPAIR CURBS & SIDEWALKS   | 871327 | 33,762       | 4,558                | 38,320  | -01        |
| 877023  |           | REPLACE LIGHTING           | 870512 | 15,400       |                      | 16,400  |            |
| 877025  |           | REPLACE HEATING SYSTEMS    | 870908 | 43,408       |                      | 43,408  |            |
| 877030  |           | COMPRESSED GAS STORAGE     | 880216 | 13,782       |                      | 17,773  |            |
| 877039  |           | CONSTRUCT ROADWAY          | 870501 | 17,373       |                      | 154,569 | -02        |
| 877044  |           | RADAR FAC ADD'L BLDG. ROOM | 880307 | 150,792      | 3,577                | 20,471  | -01        |
| 877049  |           | REMOVE CAPTAIN'S OFFICE    | 870509 | 17,449       | 3,322                | 21,248  |            |
| 877053  |           | REPLACE PUMPS              | 870702 | 21,048       |                      | 59,361  | -01        |
| 877055  |           | FAM HAS36--REPAIRS         | 871230 | 59,285       | 76                   | 16,900  |            |
| 877056  |           | REPL. CULVERT & HEADWALL   | 870526 | 15,900       |                      | 16,900  |            |
| 877058  |           | ALT'S TO BLDG. 2035        | 880612 | 235,168      |                      | 235,168 |            |
| 877060  |           | REPL. CARPET BLDG. 2340    | 870530 | 33,500       |                      | 38,500  |            |
| 877062  |           | APPROX TO COMMISSARY BLDG  | 890402 | 115,741      | 16,000               | 130,741 | -02        |
| 877063  |           | REPLACE DISASTER HORN      | 871309 | 23,400       |                      | 23,400  |            |
| 877070  |           | AIR COMPRESSOR             | 870907 | 13,265       |                      | 18,265  |            |
| 877077  |           | REPL. RAILROAD CROSSING    | 871123 | 42,500       |                      | 42,500  |            |
| 877080  |           | WATERLINE WATERING STRUCT  | 871328 | 13,200       | 4,750                | 5,450   | -02        |
| 877082  |           | REPL. OF CULVERTS          | 871324 | 44,465       | 2,397                | 21,190  | -01        |
| 877090  |           | REPLACE UNIT HEATERS       | 880211 | 20,399       | 791                  | 59,345  |            |
| 877097  |           | ASPHALT PAVEMENT CRACK     | 871301 | 59,345       |                      | 16,232  |            |
| 877098  |           | INSTALLATION OF CARPET     | 870510 | 15,232       |                      | 16,772  |            |
| 877102  |           | ROOF REPAIRS               | 871130 | 15,772       |                      | 10,937  |            |
| 877106  |           | REPAIR WALK AND STEPS      | 870516 | 13,937       |                      | 35,495  | -01        |
| 877107  |           | REPLACE CARPET BLDG. 3031C | 871120 | 35,495       |                      | 10,184  |            |
| 877111  |           | BRIDGE TIE REPLACEMENT     | 870526 | 13,484       |                      | 32,789  |            |
| 877112  |           | INSTALLATION OF EARTH SATM | 880307 | 32,789       |                      | 35,500  | -01        |
| 877119  |           | INSTALL OF JOINT FURN. JPS | 871303 | 13,000       | 17,500               | 67,693  |            |
| 877151  |           | 2ND FLR. ADDITION AT B-DGT | 880405 | 67,693       |                      | 11,535  |            |
| 877153  |           | CONSTRUCT NEW PARKING -DTS | 871305 | 11,535       |                      | 23,990  | -01        |
| 877156  |           | RELOCATE CO2 TANK AND SYS  | 880616 | 23,990       |                      | 19,250  |            |
| 877157  |           | COMPUTER LINK BLDG. 36     | 871228 | 19,050       |                      | 15,589  |            |
| 877163  |           | CONSTRUCTION BUILDING      | 871117 | 15,589       |                      | 12,595  |            |
| 877166  |           | AIR COMPRESSOR ENCLOSURE   | 871208 | 12,595       |                      | 18,989  |            |
| 877167  |           | INSTALLATION OF WINDOWS    | 880122 | 13,989       |                      | 23,990  |            |
| 877201  |           | FIBER OPTICS INSTAL--ATTN  | 870516 | 23,990       |                      | 263,243 | -01        |
| 877208  |           | RESTRIPE PARKING LOTS      | 880511 | 256,000      | 7,263                | 57,586  | -01        |
| 877229  |           | PROVIDE ELECTRICAL SVC     | 880511 | 49,317       | 9,359                | 12,500  | -01        |
| 877237  |           | REPAIR ROOF 5/1002         | 871101 | 12,500       |                      | 187,818 | -01        |
| 877238  |           | REPLACE TRANSFORMERS       | 871328 | 187,818      |                      | 84,705  | -01        |
| 877239  |           | REPLACE ELECTRICAL FEEDER  | 890314 | 82,315       | 2,589                | 92,670  | -01        |
| 877239  |           | WALL EYE STORAGE BLDG.     | 880618 | 95,538       | 3,258                |         | -01        |

PYDMPF.STAFF1..NTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: SMS EXTRACT FILE

RUN DATE: 07/05/88

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DOLLAR RANGE OF AWARD (\$000) X

31JUN80

PRJCD0:

LAST  
MOD NBR

CURPRI

MCD AMT  
CURPRI-AWARD

AWARD  
AMOUNT

BOJ

DESCRIPTION

| PRJCD0: | DESCRIPTION                 | BOJ    | AWARD<br>AMOUNT | MCD AMT<br>CURPRI-AWARD | CURPRI  | LAST<br>MOD NBR |
|---------|-----------------------------|--------|-----------------|-------------------------|---------|-----------------|
| 375306  | RRS DEMINERALIZER SYSTEMF   | 690434 | 54,493          | 3,233                   | 57,693  | -01             |
| 375315  | PAINT INT OF BLDG 25 S      | 930219 | 15,923          | 2,313                   | 18,163  | -02             |
| 375323  | REPAIRS TO PARKING LOTS R   | 890235 | 163,404         | 34,523                  | 198,327 | -03             |
| 375341  | CONSTRJCT CONCRETE PAD      | 880324 | 24,335          |                         | 24,335  |                 |
| 375350  | EXTERIOR PAINTING A         | 880539 | 89,153          |                         | 89,153  |                 |
| 375394  | REPLACE UPPER ROOF BLDG     | 870833 | 33,103          |                         | 33,103  |                 |
| 375607  | RENOVATE BASE FIRE ALARM H  | 871221 | 71,175          |                         | 71,175  |                 |
| 375531  | REPLACE LOWER ROOF G        | 871328 | 31,503          |                         | 31,503  |                 |
| 375536  | CONFR. OF RECREATION PAVI   | 870932 | 84,003          |                         | 84,003  |                 |
| 375637  | INTERIOR PAINTING           | 871215 | 22,633          |                         | 22,633  |                 |
| 375639  | INSTAL. FOAM DROP CEILING   | 871312 | 19,483          |                         | 19,483  |                 |
| 375639  | INST UNITARY A/C SYS L      | 871117 | 19,893          |                         | 19,893  |                 |
| 375657  | PURCH./INSTAL LIGHT POLE    | 870236 | 15,885          |                         | 15,885  |                 |
| 375660  | INSPECT/REPR. 503 TYN CHIL  | 870738 | 23,019          |                         | 23,019  |                 |
| 375670  | PURCHASE/INSTAL 24 WINDO    | 870817 | 13,464          |                         | 13,464  |                 |
| 375681  | PURCHASE/INSTAL 3 POLES F   | 870231 | 17,003          |                         | 17,003  |                 |
| 375682  | RMV/DISP. FRIABLE ASBESTOSH | 870710 | 12,543          |                         | 12,543  |                 |
| 375686  | PURCHASE/INSTAL FARM CEIE   | 871132 | 24,753          |                         | 24,753  |                 |
| 375690  | RENOV TO H2/SQUASH COURTS   | 871236 | 21,203          | 581-                    | 21,203  | -01             |
| 375696  | INSTAL. FOAM CEILING        | 871116 | 21,603          |                         | 21,603  |                 |
| 375900  | RPR COLUMN PEDESTALS M      | 871113 | 23,753          |                         | 23,753  |                 |
| 375909  | BITUMINOUS PAVING RPR W     | 890425 | 25,355          | 74,933                  | 99,985  | -01             |
| 375914  | RPR 2500 KVA TRANSFORMERS   | 871319 | 24,573          |                         | 24,573  |                 |
| 375919  | PPR OF WATER STORAGE TANKS  | 871330 | 51,114          | 4,189                   | 55,303  | -01             |
| 375922  | RESURFACE DRIVEWAY W        | 870425 | 21,033          |                         | 21,033  |                 |
| 375929  | LIGHTING IMPROVEMENTS M     | 890129 | 55,333          | 1,713                   | 57,713  | -01             |
| 375939  | RPL MAIN DIST PANNE-BOARD   | 890436 | 129,773         |                         | 129,773 | -02             |
| 375940  | SITE PREP FOR FAP STRUCT R  | 871231 | 113,367         |                         | 113,367 | -02             |
| 375947  | INSTAL. OVERHEAD DCR I      | 871221 | 13,945          | 5,718                   | 19,985  | -01             |
| 375968  | CLEAN STORM DRAINAGE        | 890419 | 24,702          |                         | 24,702  |                 |
| 375615  | REPL 6' FIREMAIN            | 870430 | 13,389          |                         | 13,389  |                 |
| 375326  | FUEL MANAGEMENT SYSTEM      | 890324 | 12,503          | 3,522                   | 16,322  | -02             |
| 375331  | BASKET 3 VOLLEYBALL - COJRT | 870935 | 21,753          |                         | 21,753  |                 |
| 375417  | 1W EXHAUST DUCT MOD S       | 870436 | 24,893          |                         | 24,884  |                 |
| 375436  | CLEAN 3 HEAT EXCHANGES J    | 870539 | 12,403          |                         | 12,403  |                 |
| 375476  | INSULATE 64 INLET DJCT      | 871129 | 15,843          |                         | 15,843  |                 |
| 375493  | COMPUTER TAPE ROOM BLD.22   | 870228 | 21,394          |                         | 21,394  |                 |
| 375496  | RMV ASBESTOS FROM BOILER F  | 870925 | 17,103          |                         | 17,103  |                 |
| 377001  | ELECT. SER. FOR COMPUTER B  | 871211 | 43,903          |                         | 43,903  |                 |
| 377303  | RENOV. SCALE REPAIR LAB T   | 890434 | 47,989          | 3,974                   | 47,574  | -01             |
| 377317  | AIR COMPRESSOR FAC. B.38 N  | 890310 | 35,003          | 2,437                   | 37,437  | -03             |

PNDVD.F.STAFF1.CNTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 900 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/89

DOLLAR RANGE OF AWARD (\$000) K

57

08JUN80

PRCDDOC

LAST  
MOD YBR

CURPRI

MOD AMT  
CURPRI-AWARD

AWARD  
AMOUNT

DESCRIPTION

900

| PRCDDOC | DESCRIPTION                 | 900    | AWARD<br>AMOUNT | MOD AMT<br>CURPRI-AWARD | CURPRI  | LAST<br>MOD YBR |
|---------|-----------------------------|--------|-----------------|-------------------------|---------|-----------------|
| 873714  | SEAL COAT/PARK. LOT STRIP   | 871123 | 16,000          |                         | 16,000  |                 |
| 873716  | REPLACE 2 HEAT PUMP A/C U   | 871125 | 13,500          |                         | 13,500  |                 |
| 873732  | A/C CHILLER UNIT REPAIRS    | 870925 | 24,950          |                         | 24,950  |                 |
| 873734  | REPLACE WINDOWS QUARTERS O  | 880510 | 23,000          |                         | 23,000  | -02             |
| 873745  | MISCEL. REMOVALS O          | 880119 | 13,100          | 13,100                  | 36,200  | -01             |
| 873746  | RESTROOM REHAB. SHOPSIPS V  | 871123 | 17,500          | 950                     | 18,460  |                 |
| 873755  | PEPERS. TO BLDG. 204        | 871123 | 23,300          |                         | 23,300  |                 |
| 873750  | ELECTR. TRANSFORM. REMOVE   | 880213 | 15,500          |                         | 15,500  |                 |
| 873757  | MISC. REPRS. TO 21 APT. D   | 871122 | 15,950          |                         | 15,950  |                 |
| 873759  | CARPET INSTALLATION         | 871124 | 24,000          |                         | 24,000  | -01             |
| 873909  | FAVE OF MAINSIDE PARK LOTC  | 871021 | 62,000          | 250                     | 62,250  | -02             |
| 873935  | REPLACE BOILER/HOT WATER N  | 880415 | 189,841         | 13,310                  | 208,651 | -04             |
| 873954  | EM CLUB ALTERATIONS S       | 880328 | 65,520          | 2,551                   | 68,071  | -01             |
| 873964  | INSTALL WINDOWS             | 871221 | 22,800          | 22,300                  | 89,081  | -01             |
| 873966  | CONCRETE PLATFORM PPRS B    | 880527 | 215,290         | 17,993                  | 236,283 | -01             |
| 873987  | REPLACE SUBMERSIBLE WELL    | 870530 | 14,513          | 358                     | 14,885  | -01             |
| 874108  | INSTALL LIGHT FIXTURES      | 870227 | 12,927          |                         | 12,927  | -01             |
| 874248  | PEINST. PULSATION CHAMBER D | 870925 | 16,933          |                         | 16,933  | -01             |
| 874452  | RENO. TO LEGAL SERVICE P    | 880121 | 122,000         |                         | 122,000 | -01             |
| 874454  | FIRE SUPPRE. & ALARM SYSTM  | 890226 | 33,805          |                         | 33,805  | -04             |
| 874456  | AWARD 200F MODS S           | 890115 | 513,000         | 71,032                  | 584,032 | -03             |
| 874494  | TOACC PIPE/OPTIC CABLE M    | 880318 | 193,122         |                         | 193,122 | -01             |
| 874497  | RPR ELEC SYST               | 871028 | 86,000          | 57,150                  | 143,150 | -01             |
| 874515  | SECURITY LIGHTING H         | 871227 | 13,593          |                         | 13,593  | -01             |
| 874530  | RPR/ALT TO LOADING DOCK 1U  | 890421 | 36,000          |                         | 36,000  | -01             |
| 874536  | FLDS. FLOOD EMERG. -104T    | 880426 | 12,098          |                         | 12,098  | -01             |
| 874700  | RELOCATE GJARD SHACK R      | 871127 | 11,743          |                         | 11,743  | -01             |
| 874706  | REPLACE BUILER BLDG. 15A G  | 880122 | 73,490          |                         | 73,490  | -01             |
| 874715  | OFFICE RENOVATIONS 3L 2 M   | 870221 | 81,110          |                         | 81,110  | -02             |
| 874716  | PPRS 50770 OFFICE 3-DG 3 S  | 870912 | 173,749         | 5,335                   | 179,084 | -01             |
| 874722  | GROUND MAINTANCE R          | 870920 | 67,587          |                         | 67,587  | -01             |
| 874724  | SHED ROOF 3-DG. #2 M        | 890114 | 24,900          |                         | 24,900  | -01             |
| 874733  | SITE PREPS FOR SECMMODULE S | 890114 | 49,661          | 651                     | 50,312  | -01             |
| 874741  | CONSTRUCT SURSTATION V K    | 871020 | 65,994          |                         | 65,994  | -01             |
| 874746  | PEPERS. PLATING SHOP FL.    | 871122 | 15,093          |                         | 15,093  | -01             |
| 874761  | GARAGE ROOF REPAIRS L       | 880329 | 29,900          |                         | 29,900  | -01             |
| 874768  | PPRS TO CEILING M           | 830323 | 14,919          | 7,200                   | 22,119  | -01             |
| 874791  | RPL CARPETING C             | 871218 | 11,545          |                         | 11,545  | -01             |
| 875003  | REPAIRS TO PATROL ROAD P    | 871228 | 20,900          |                         | 20,900  | -01             |
| 875003  | REBUILDING DE HEATERS       | 870516 | 12,945          | 4,500                   | 17,545  | -01             |
| 875005  | ALTS TO INTERSECTION S      | 870324 | 19,823          | 417                     | 20,245  | -01             |

PN\MOD.F. STAFF1.CNTL





CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 3DD IS PAST AND ACTUA-  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/86

JE 55  
 JF: 88JMN30

DOLLAR RANGE OF AWARD (\$300) K

| PROCDOC | DESCRIPTION                 | POD    | AWARD<br>AMOUNT | MOD AMT<br>CURPRI-AAARD | CURPRI  | LAE<br>MOD |
|---------|-----------------------------|--------|-----------------|-------------------------|---------|------------|
| 371532  | REPL.MNT WATER TANKS 355 P  | 830229 | 67,553          |                         | 67,553  | -          |
| 371533  | EXERCISE AREA,BLG.,T.LUCE R | 830138 | 172,453         | 1,551                   | 174,011 | -          |
| 371644  | FLOOR REPL. BLDG. 1153      | 871123 | 24,616          |                         | 24,616  | -          |
| 371645  | ENT.DOCR REPL. BLDG. 1105   | 871239 | 24,137          |                         | 24,137  | -          |
| 371548  | REPL.COND TANK NO.1,B.7 S   | 850239 | 53,103          |                         | 53,103  | -          |
| 371655  | RENOV BLDG. 300             | 871124 | 63,184          |                         | 63,184  | -          |
| 371671  | CONDENSATE, BLDG PIER 2 N   | 871019 | 24,603          | 19,734                  | 44,304  | -          |
| 371673  | LIGHTING BLDG. 103          | 871224 | 25,299          | 11,183                  | 37,482  | -          |
| 371680  | COMPUTER RM. EXP. 3,1175C   | 871226 | 24,542          |                         | 24,542  | -          |
| 371691  | FENCING, CLYME CT. HSG. D   | 870512 | 13,485          |                         | 13,485  | -          |
| 371700  | ALTS DIVING AREA,BLDG. 355G | 871234 | 49,843          |                         | 49,843  | -          |
| 371720  | NEW ROOFING BLDG. 122       | 830333 | 53,485          |                         | 53,485  | -          |
| 371726  | REFUSE SOILER 1, F.C-115 S  | 871134 | 38,415          |                         | 38,415  | -          |
| 371762  | EXT. PAINT, BLDG. 107,103   | 871126 | 24,151          | 19,933-                 | 19,483  | -          |
| 371769  | REP. WALLS/CEILING R.101G   | 390527 | 11,340          | 365                     | 26,995  | -          |
| 371800  | RPR CURTAIN WALL            | 871125 | 13,703          |                         | 13,703  | -          |
| 371502  | REP. WINDOWS B.2205         | 871218 | 13,503          |                         | 13,503  | -          |
| 371834  | RPR FC-DING PARTITION,550   | 830612 | 13,379          |                         | 10,879  | -          |
| 372106  | PAINT PORTA-CRANS           | 871114 | 196,963         | 65,751                  | 262,711 | -          |
| 372134  | BERTH 11 CLEC.DUCT REPS     | 870714 | 13,203          |                         | 18,203  | -          |
| 372142  | RPR FRESH WATER DIST SYS C  | 871025 | 275,573         | 21,233                  | 297,873 | -          |
| 372143  | REPAIR CHAVE RAIL           | 871021 | 253,235         | 44,295                  | 302,531 | -          |
| 372181  | ROOF RPS AT STRS H-27       | 871011 | 14,203          | 575                     | 14,375  | -          |
| 372199  | DEM OF VAK SLOCS'G          | 871239 | 83,503          |                         | 68,503  | -          |
| 372428  | MASQUET RPY DDT SEAT        | 870337 | 17,963          |                         | 17,963  | -          |
| 372633  | ELECT MOD B-DU 15U,CTR RY   | 871224 | 13,845          |                         | 13,845  | -          |
| 372505  | 2ND AVE. PARKING            | 871118 | 85,095          |                         | 85,089  | -          |
| 372511  | HANSAK 250                  | 850334 | 33,703          |                         | 42,386  | -          |
| 372514  | B.354 HEATING SYS JGRADEG   | 871110 | 37,725          | 3,594                   | 37,725  | -          |
| 372530  | NEW TELEPHONE EXCHANGE      | 830138 | 162,003         | 3,585                   | 170,989 | -          |
| 372531  | REMOVAL ASBESTOS HJR 25J H  | 871234 | 83,403          |                         | 80,403  | -          |
| 372549  | STJCCU REPAIR               | 870312 | 34,403          |                         | 34,403  | -          |
| 372558  | CUM. CABLE INSTAL-ATION     | 850310 | 24,995          | 293                     | 25,286  | -          |
| 372559  | CONCRETE PARKING REPAIR     | 871039 | 81,711          |                         | 81,711  | -          |
| 372572  | GENERATOR ADDITION          | 830112 | 22,203          |                         | 22,203  | -          |
| 372643  | SCAFFOLD VESSEL REPAIR      | 870930 | 11,803          |                         | 11,803  | -          |
| 372604  | SEALING OF JOINT CRACKS     | 871127 | 14,934          |                         | 14,934  | -          |
| 372616  | REPLY SPINWELM              | 870315 | 23,425          |                         | 20,426  | -          |
| 372813  | RPR TO AIRCRAFT PAVEMENTS   | 871113 | 37,133          |                         | 37,133  | -          |
| 372824  | REPL. SIDING BLDG. 49 B     | 890413 | 97,303          |                         | 97,303  | -          |
|         | PAINTING OF FAM HSG UNIT M  | 870723 | 12,063          |                         | 12,063  | -          |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE B/D IS PAST AND ACTUAL -  
 SOURCE: CMS EXTRACT FILE

| PROCDG: | 56 | RUN DATE:                 | 07/05/88 | DOLLAR RANGE OF AWARD (\$000) < | AWARD AMOUNT | MOD AMT CUPPRI-AMRD | CURPRI  | LAST MOD N-1 |
|---------|----|---------------------------|----------|---------------------------------|--------------|---------------------|---------|--------------|
|         |    | DESCRIPTION               | ROD      |                                 |              |                     |         |              |
| 872631  |    | REPAIR ELECT. FEEDER      | F        | 571211                          | 11,853       |                     | 11,853  | -01          |
| 872913  |    | FOUNDATIONS               | S        | 571221                          | 45,661       | 3,480               | 50,141  |              |
| 872926  |    | INSTAL. CARPET            |          | 571231                          | 10,411       |                     | 10,411  |              |
| 872938  |    | RMV EXIST'NG COIL         | A        | 571130                          | 11,700       |                     | 11,700  |              |
| 873002  |    | REPLACE SHOWER STALLS     | P        | 871001                          | 17,542       |                     | 17,542  |              |
| 873007  |    | COPE VOICE COM CUT-ER     | ME       | 861128                          | 71,490       |                     | 71,490  |              |
| 873010  |    | RECOOP FLOORS JOI & JOE   | R        | 590112                          | 55,420       |                     | 60,255  | -01          |
| 873200  |    | REPAIR FUEL TANKS         | S        | 270704                          | 29,382       | 4,138               | 29,382  |              |
| 873206  |    | SMALL ARMS BERM MOD       | GRIFH    | 870928                          | 15,450       |                     | 16,450  |              |
| 873209  |    | WIDEN JEPH FIRE ACCESS    | ROD      | 871005                          | 17,718       |                     | 17,718  |              |
| 873224  |    | REPS TO END FLOOR         | HEAD     | 530106                          | 12,850       |                     | 10,350  | -01          |
| 873233  |    | UNDER-BUNKER CONVEYOR     | RPR      | 670930                          | 12,760       |                     | 12,760  |              |
| 873242  |    | LADDERS & PLATFORMS       | R        | 580303                          | 97,412       |                     | 97,412  | -01          |
| 873323  |    | ALT TO RMS 1023-1033      | N        | 880121                          | 23,543       |                     | 23,543  |              |
| 873336  |    | RECONV. TO STAFF LOUNGE   | A        | 880121                          | 14,175       |                     | 14,175  | -01          |
| 873358  |    | ALTS. OF LAB              | L        | 880107                          | 29,800       | 2,700               | 32,500  | -01          |
| 873375  |    | CLEARING OF CULVERTS      | S        | 670516                          | 13,120       |                     | 18,120  |              |
| 873403  |    | RPR ENTR. DOORS           | D        | 670512                          | 15,395       |                     | 16,395  |              |
| 873422  |    | RPR'S TO MECH. SYS        | G        | 890301                          | 139,794      | 2,837               | 142,631 | -02          |
| 873426  |    | MODIFICATIONS TO FACILITY | U        | 880124                          | 84,290       | 950                 | 85,240  | -01          |
| 873445  |    | ROOF REPAIR               | P        | 871214                          | 74,000       | 1,325-              | 72,175  | -01          |
| 873454  |    | RE-OCATE WATER MAIN       | BASE     | 870520                          | 11,400       |                     | 12,700  | -01          |
| 873476  |    | MOD RR SIGNALLING DEVICES | P        | 671223                          | 14,655       | 1,500               | 14,655  | -01          |
| 873484  |    | REPAIR COOLING TOWER      | BANK     | 870702                          | 10,331       |                     | 10,331  | -01          |
| 873532  |    | OR FLRS 5467              | C        | 590124                          | 52,300       |                     | 52,300  |              |
| 873538  |    | REPAIR OF FEEDER          | C        | 870518                          | 14,000       |                     | 14,000  |              |
| 873559  |    | REPLACE GAS TANK          | Z        | 271128                          | 24,950       | 1,935               | 26,950  | -01          |
| 873565  |    | INSTALLATION FUEL OIL     | U        | 871231                          | 13,600       |                     | 15,335  |              |
| 873568  |    | CONVEYR BELT LIPT 3105    | U        | 270701                          | 14,200       |                     | 14,200  |              |
| 873595  |    | EMERG. RPR FEEDER         | C        | 670522                          | 12,230       |                     | 12,230  | -01          |
| 873598  |    | RPR ELECTRICAL FEEDER     | C        | 871018                          | 22,681       | 1,081               | 22,681  | -01          |
| 873615  |    | AIR CONDITIONING REPAIRS  | C        | 880301                          | 37,285       |                     | 37,285  |              |
| 873668  |    | OL./WATER SEPARATOR       | H        | 890501                          | 79,400       |                     | 78,400  | -02          |
| 873681  |    | EMERG OVERHAUL TURBINE    | G        | 670715                          | 13,600       |                     | 13,600  |              |
| 873682  |    | INSTAL. DISHWASHERS       | B        | 880331                          | 35,558       | 2,576               | 38,144  |              |
| 873682  |    | ASBESTOS REMOVAL          | D        | 871220                          | 110,600      |                     | 110,600 |              |
| 873684  |    | RPR CENTRIVAC CHILLER     | M        | 870321                          | 20,383       | 2,557               | 22,940  | -01          |
| 873698  |    | SITL RPR FOR X-RAY SYS    | C        | 590319                          | 45,611       | 3,192               | 49,803  | -01          |
| 873699  |    | INSULATE PIPING           | P        | 871204                          | 15,000       |                     | 15,000  |              |
| 873700  |    | ELECTRIC SERVICE          | J        | 571219                          | 15,344       |                     | 15,344  |              |
| 873702  |    | DOOR REPLACEMENT          | DOOR     | 580220                          | 15,800       |                     | 15,800  |              |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BJD IS PAST AND ACTUAL  
 SOURCE: C4S EXTRACT FILE

56 RUN DATE: 07/05/83

DOLLAR RANGE OF AWARD (\$000) K

JUN80

13CDDUC

| AWARD AMOUNT | MOD AMT | CUSPRI | LAST MOD YBR |
|--------------|---------|--------|--------------|
| 11,760       |         | 11,760 | -01          |
| 24,350       |         | 24,350 | -01          |
| 14,120       | 1,220   |        | -01          |
| 34,245       |         | 34,245 | -02          |
| 29,115       | 275     |        | -01          |
| 24,375       | 459     |        | -03          |
| 818,518      | 53,769  |        | -01          |
| 14,785       | 1,553   |        | -01          |
| 53,260       | 1,540   |        | -01          |
| 62,293       |         |        | -01          |
| 10,370       |         |        | -01          |
| 36,550       | 4,250   |        | -01          |
| 19,473       |         |        | -01          |
| 13,372       | 152     |        | -02          |
| 15,500       | 2,900   |        | -02          |
| 19,454       |         |        | -02          |
| 35,485       |         |        | -02          |
| 15,951       |         |        | -01          |
| 14,205       | 1,217   |        | -01          |
| 16,659       | 291     |        | -02          |
| 17,539       |         |        | -01          |
| 35,111       |         |        | -02          |
| 31,233       |         |        | -02          |
| 24,273       |         |        | -02          |
| 180,257      | 22,410  |        | -01          |
| 22,389       |         |        | -05          |
| 359,305      | 1       |        | -05          |
| 1,305,379    | 42,379  |        | -05          |
| 685,105      | 42,357  |        | -05          |
| 630,729      | 31,787  |        | -01          |
| 269,549      | 40,324  |        | -02          |
| 185,705      | 1,252   |        | -05          |
| 379,853      | 353     |        | -07          |
| 134,005      | 1,105   |        | -04          |
| 339,454      | 33,747  |        | -02          |
| 61,389       | 5,451   |        | -05          |
| 469,473      | 7,527   |        | -05          |
| 2,713,905    | 49,399  |        | -03          |
| 22,737       | 2,455   |        | -01          |
| 13,479       |         |        | -02          |
| 353,563      | 930     |        | -02          |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

52 RUN DATE: 07/05/65

DF: 89JUN30

DOL-R RANGE OF AWARD (\$300) K

| PRCDDC: | DESCRIPTION                | PO | AWARD AMOUNT | MDD ANT CURPRI-AMRD | CURPRI  | LAST MOD \ |
|---------|----------------------------|----|--------------|---------------------|---------|------------|
| 867080  | STABILIZE -ANDSLIDES       | 0  | 257,823      | 25,771              | 285,591 | -0         |
| 867085  | REPAI/REPLACE CULVERTS     | T  | 54,503       | 2,433               | 57,003  | -01        |
| 867086  | EROSION CONTROL            | T  | 47,453       | 153                 | 47,603  | -01        |
| 867037  | SLIDE REPAIR               | T  | 29,903       | 5,253               | 35,153  | -01        |
| 867096  | SLOPED ROOF REPAIRS        | H  | 183,803      | 2,533               | 186,303 | -01        |
| 867098  | HIGHWAY RESURFACING        | O  | 349,542      |                     | 349,542 | -01        |
| 867104  | OUTDOOR RANGE              | L  | 152,852      | 5,293               | 158,152 | -01        |
| 867105  | ADDN'S & ALTS. TO 3. 3331L | U  | 173,282      | 1,335               | 174,617 | -01        |
| 867109  | ADDN'S & ALTS. TO 5-2344   | U  | 169,275      | 1,335               | 170,610 | -01        |
| 867111  | HIGHWAY RESURFING 1-53     | O  | 195,003      | 1,352               | 196,355 | -01        |
| 867114  | PROT. BARRIERS FOR WELLS   | U  | 121,283      | 4,743               | 126,026 | -01        |
| 867118  | FIRM REPAIRS POND          | U  | 13,503       |                     | 13,503  | -01        |
| 867125  | PARKING LOT EXTENSION      | O  | 11,903       |                     | 11,903  | -01        |
| 867126  | ALTERATIONS TO BLDG. 2370S | G  | 33,995       | 1,357               | 35,352  | -01        |
| 867129  | FAMILY HOUSING REPAIRS     | G  | 51,595       | 5,233               | 56,828  | -01        |
| 867224  | MANUFACTURING SUPPORT      | I  | 45,754       | 1,396               | 47,150  | -01        |
| 867230  | ROOF REPAIRS 6/1103        | M  | 173,003      |                     | 173,003 | -01        |
| 867237  | ALTERATIONS TO D/533       | R  | 38,903       | 38,933              | 77,836  | -01        |
| 867242  | EMERGENCY POWER OUTRAGE    | H  | 159,003      | 8,879               | 167,882 | -01        |
| 867302  | RPR'S TO BLDG. 32          | C  | 12,061       |                     | 12,061  | -01        |
| 867305  | PERIMETER FENCE TRAILER    | Y  | 187,493      | 11,358              | 198,851 | -01        |
| 867324  | EXHAUST DUCT U-39643       | H  | 12,513       |                     | 12,513  | -01        |
| 867346  | RPR SOUTH -EARTH HEAT SYSD | N  | 16,203       |                     | 16,203  | -01        |
| 867348  | RPR/ALT BLDG. #63          | N  | 122,203      |                     | 122,203 | -01        |
| 867358  | PERDOF BLDG. 9444 & 02     | R  | 147,003      | 2,764               | 149,767 | -01        |
| 867700  | RPR STORM SEWER            | D  | 31,823       | 9,533               | 41,356  | -01        |
| 867715  | ADDITION TO BUILDING 27109 | D  | 896,003      | 83,371              | 979,374 | -01        |
| 867717  | RPR'S ALTS TO B2500 STAIRS | C  | 137,385      |                     | 137,385 | -01        |
| 867722  | OXYGEN SYSTEM REPAIR       | D  | 137,793      | 10,793              | 148,586 | -01        |
| 867730  | RPR ROOF B-1125            | S  | 139,703      | 17,332              | 157,035 | -01        |
| 867735  | RESURFACE TENNIS COURTS    | F  | 172,503      | 1,456               | 173,959 | -01        |
| 867736  | REPAIR WINDOWS             | S  | 34,663       |                     | 34,663  | -01        |
| 867745  | GROUND FAULT BREAKERS      | S  | 11,445       |                     | 11,445  | -01        |
| 867746  | RPR CATHODIC PROT SYSTEM   | S  | 34,373       |                     | 34,373  | -01        |
| 867749  | RPR - BLDG. & STREET SIGNS | A  | 13,865       | 1,351               | 15,216  | -01        |
| 867762  | DEMO SLO NORTH 5035 11     | V  | 13,415       | 1,939               | 15,354  | -01        |
| 867767  | INSTL METAL STORAGE RAYS   | M  | 13,003       |                     | 13,003  | -01        |
| 867768  | REPAIR OFFICE SPACES       | M  | 18,503       |                     | 18,503  | -01        |
| 867770  | PURCHASE OF DUMP TRUMPS    | N  | 43,003       | 2,733               | 45,736  | -01        |
| 867772  | GEN. RM. COOLING, SECURITY | N  | 95,672       | 1,725               | 97,397  | -01        |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CWS EXTRACT FILE

51 RUN DATE: 07/05/85

PROJDOC : 88JUN30

DOLLAR RANGE OF AWARD (\$000) K

| PROJDOC | DESCRIPTION                | BOJ | AWARD AMOUNT | CURPRI-AJARD | MOD AMT | CURPRI  | LAST MOD NR |
|---------|----------------------------|-----|--------------|--------------|---------|---------|-------------|
| 865961  | PAINT RAILROAD BRIDGE      | A   | 870737       | 21,600       | 319     | 22,418  | -02         |
| 865964  | RPL STREET LIGHTS          | L   | 871323       | 33,587       |         | 33,587  | -01         |
| 865972  | INSTL OF TELEPHONE CABLESE | L   | 870304       | 33,590       |         | 33,590  |             |
| 865976  | EXPAND RESTROOM BLDG 214 T | T   | 830115       | 65,397       | 406     | 66,803  | -02         |
| 865000  | PROV. STPP. WINDOWS        | O   | 660721       | 12,600       |         | 12,600  |             |
| 865005  | REMOVAL OF ASBESTOS        | O   | 870331       | 17,257       |         | 17,257  | -01         |
| 865319  | RPL AIR CONDITIONING SYS   | S   | 860718       | 24,050       |         | 24,050  |             |
| 865464  | CONSTR HAZARDOUS WASTE     | P   | 660714       | 15,622       |         | 15,622  | -01         |
| 865487  | INSTAL. KITCHEN EXHAUST    | P   | 660327       | 12,795       |         | 12,795  |             |
| 865495  | INSULATE REFRIGERATION     | P   | 861124       | 23,000       |         | 23,000  |             |
| 865528  | CONSTRUCT PARKING AREA     | P   | 870120       | 56,300       | 3,235   | 59,235  | -01         |
| 867301  | RPR SLOPED ROOF VAR BLDG   | R   | 861327       | 327,261      | 3,425   | 330,687 | -02         |
| 867303  | ARCUND PRY                 | E   | 861323       | 30,413       | 1,075   | 31,493  | -02         |
| 867304  | RENOVATION BLDGS.          | H   | 660206       | 29,500       |         | 29,500  |             |
| 867305  | MODIFICATIONS              | M   | 660317       | 14,314       | 977     | 15,311  | -03         |
| 867307  | ALTS TO BLDG. 2039         | T   | 870322       | 186,553      | 9,759   | 196,317 | -01         |
| 867309  | RENOVATION BLDG. 353       | L   | 870311       | 143,963      | 1,462-  | 147,501 | -01         |
| 867311  | RPL ELY. VAR BLDGS         | H   | 551222       | 135,563      |         | 135,563 |             |
| 867312  | RP - FA SYSTEM             | A   | 370327       | 122,123      |         | 134,623 | -01         |
| 867313  | REPLACE WATER              | U   | 870328       | 96,655       | 12,300  | 91,655  | -01         |
| 867315  | INSTAL. OF FOOD SVC LINE   | Z   | 861314       | 23,120       | 5,000-  | 28,120  | -01         |
| 867316  | REPL. AIR CONDITIONING     | M   | 871109       | 65,799       |         | 65,799  |             |
| 867319  | ALTS TO BLDG. 2802         | L   | 370311       | 198,315      |         | 198,315 |             |
| 867320  | CONSTRUCT ADDITION         | N   | 871312       | 93,690       |         | 93,690  | -01         |
| 867321  | RENOVATE LAB BLDG. 2044    | T   | 370316       | 22,363       |         | 22,363  |             |
| 867324  | REPL. FURNELS CON. BLDGS.  | L   | 870327       | 186,905      | 13,215  | 198,122 | -02         |
| 867330  | REPLACE LIFT STATION       | M   | 870328       | 140,590      | 7,480   | 148,070 | -02         |
| 867333  | REVISIONS TO BLDG 227      | H   | 670330       | 649,350      | 7,935   | 657,285 | -06         |
| 867336  | CON OF PARKING LOT         | A   | 660312       | 44,323       | 1,979   | 46,302  | -02         |
| 867339  | ALTS TO BLDG. 2632         | N   | 870302       | 190,900      | 13,412  | 206,312 | -02         |
| 867340  | MAJUP BRIDGE REPAIRS       | D   | 871258       | 370,000      | 383,197 | 383,197 | -03         |
| 867344  | REPL. COOLING TOWER PUMP   | G   | 870310       | 46,466       |         | 46,466  |             |
| 867349  | R&A CONSOLIDATED MESS      | N   | 370325       | 124,990      | 10,583  | 135,583 | -05         |
| 867350  | REPAIRS TO GYMNASIUM       | L   | 870713       | 185,111      | 192,055 | 192,055 | -01         |
| 867359  | CONCRETE JACK REPL.        | C   | 661125       | 36,780       | 34,410  | 36,780  | -05         |
| 867362  | DEM'D VARIOUS BLDGS        | S   | 660330       | 36,410       |         | 36,410  |             |
| 867363  | INSTAL A/C IN COMPUTER RM  | B   | 660327       | 19,354       | 2,000   | 21,084  | -02         |
| 867364  | CHEMICAL STORAGE           | M   | 870706       | 65,700       | 1,375   | 67,075  | -02         |
| 867367  | PYRJ CURTAINS HUT          | S   | 870312       | 145,195      | 1,162   | 147,358 | -01         |
| 867369  | INSTAL. LINEP FOR INT      | S   | 870120       | 15,695       |         | 15,695  |             |
| 867372  | EXTERIOR PAINTING          | H   | 330324       | 190,235      |         | 190,235 |             |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| 50     | PRCDOC | RUN DATE: | 07/05/86                    | DOLLAR RANGE OF AWARD (\$000) K | AWARD AMOUNT | MOD AMT CURPRI-AWARD | CURPRI  | LAST MOD VS- |
|--------|--------|-----------|-----------------------------|---------------------------------|--------------|----------------------|---------|--------------|
|        |        |           |                             |                                 | BUD          |                      |         |              |
|        |        |           | DESCRIPTION                 |                                 |              |                      |         |              |
| 805155 |        |           | EXT PAINTING VAR BUDS       |                                 | 670136       |                      | 21,495  | -01          |
| 805150 |        |           | EXT PAINTING VAR P-DUS      | A                               | 670327       |                      | 68,473  | -02          |
| 805157 |        |           | RPL SOILER STACKS           | T                               | 870327       | 15,593               | 5,865   | -02          |
| 805161 |        |           | CONST CONFERENCE RM 552     | S                               | 880319       | 5,879                | 43,279  | -01          |
| 805163 |        |           | FOUND TOK S VERT MILLS      | S                               | 680415       | 6,021                | 117,383 | -01          |
| 805164 |        |           | ROOF TOP SAFETY RAIS        |                                 | 871326       |                      | 22,792  |              |
| 805165 |        |           | ALT TO MINI MART B 329      |                                 | 661230       |                      | 20,591  |              |
| 805166 |        |           | RPRS TO AIRCRAFT PARKING R  | R                               | 870320       |                      | 256,900 | -02          |
| 805168 |        |           | INST TELEPHONE CAB-E        | P                               | 870318       |                      | 110,650 | -01          |
| 805170 |        |           | PLATING SHDP DEVO 3 126     | H                               | 870315       |                      | 24,753  |              |
| 805173 |        |           | REPL. COOLING TOWER         | G                               | 880212       | 1,551                | 26,166  | -01          |
| 805177 |        |           | RPL WATER CHILLER 3-DU 370  |                                 | 570739       |                      | 59,935  |              |
| 805321 |        |           | REW CARPET & INSTL 50V/T    |                                 | 660410       |                      | 10,753  | -01          |
| 805344 |        |           | INSTL LHM POWER ALDS #2     | R                               | 660327       | 13,281               | 26,562  | -02          |
| 805363 |        |           | Y431A FLAMABLE STORAGE      | U                               | 861224       | 1,451                | 187,451 | -02          |
| 805594 |        |           | ROOM ALTERATIONS R-#A       | S                               | 650316       | 533                  | 18,235  | -01          |
| 805516 |        |           | REPAIR ROWDAYS              | C                               | 960423       |                      | 10,715  |              |
| 805564 |        |           | RPT OF ROADWAY & DRAINAGE   |                                 | 851321       |                      | 30,727  |              |
| 805570 |        |           | BACK-UP ELEC PWR SJ         | E                               | 870321       | 343-                 | 22,722  | -04          |
| 805574 |        |           | CARPET TILE B-4             | A                               | 651310       |                      | 44,000  |              |
| 805593 |        |           | RENOV TO RESTROOM 4-D 2/35  |                                 | 661238       | 1,570                | 42,943  | -02          |
| 805719 |        |           | INSTL OF FLOODING GATES     |                                 | 870328       |                      | 22,222  |              |
| 805723 |        |           | NORTH SIDE TRANSFORMER      |                                 | 870322       |                      | 20,583  |              |
| 805727 |        |           | WAREHOUSE CONVERSION B-4CE  |                                 | 870321       |                      | 133,635 | -02          |
| 805726 |        |           | RP-45J-TON COOLING TOWER    |                                 | 861135       |                      | 32,533  | -01          |
| 805784 |        |           | SECURE RAILINGS             |                                 | 661235       |                      | 16,493  | -02          |
| 805601 |        |           | INSTALL DRDP DEILING 0-36E  |                                 | 870311       |                      | 110,450 | -02          |
| 805604 |        |           | REPLACE DOOR BLDG. 112      | M                               | 870325       | 3,552                | 15,355  | -01          |
| 805604 |        |           | RENOV. OFFICE SPACE 3H137 M |                                 | 661112       | 5,479                | 362,972 | -02          |
| 805907 |        |           | FIRE DEFICIENCIES 3-17 L    |                                 | 880431       |                      | 167,003 | -03          |
| 805910 |        |           | CONSTRUCT AREA BLDG. 303 M  |                                 | 870313       |                      | 194,157 | -01          |
| 805921 |        |           | REPLACE MAIN CNT DCCP       |                                 | 870328       |                      | 23,387  | -01          |
| 805922 |        |           | CON LOADING DOCKS BLDG. 7L  |                                 | 870311       |                      | 54,756  |              |
| 805940 |        |           | NEW FUMIGATION FAC 3-405 L  |                                 | 870439       |                      | 391,785 | -04          |
| 805941 |        |           | REPAIR ROOF REPLACEMENT     | P                               | 870323       |                      | 120,063 | -02          |
| 805945 |        |           | REPAIR OFFICERS W/SS        | M                               | 870139       |                      | 74,527  | -01          |
| 805946 |        |           | REPAIRS TO ROOFS            | S                               | 870328       |                      | 34,988  | -01          |
| 805949 |        |           | REPAIR BOWLING ALLEY        | H                               | 871223       |                      | 19,585  | -02          |
| 805952 |        |           | REPAIR STORM WATER INLETS   | R                               | 870317       |                      | 74,665  | -02          |
| 805956 |        |           | RPR STRUCTURAL MEMBERS      |                                 | 870327       |                      | 25,081  | -01          |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: C4S EXTRACT FILE

DOLLAR RANGE OF AWARD (\$3000) X

RUN DATE: 07/05/88

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FILE: 88JUN30

PRCCOOC

| PRCCOOC | DESCRIPTION                 | BOJ    | AJARD<br>AMOUNT | MOD AMT<br>CURPRI-AWARD | CJRPRI  | LAST<br>MOD Y |
|---------|-----------------------------|--------|-----------------|-------------------------|---------|---------------|
| 864572  | FIRE SUPP. & ALARM INSTALM  | 800426 | 43,700          |                         | 43,700  | -01           |
| 864573  | FIRE SUPPR. & ALARM SYSTM   | 850331 | 35,824          | 5,558-                  | 28,156  | -02           |
| 864577  | RPL 1300 KVA TRANSFORMER E  | 371207 | 33,979          |                         | 38,978  | -01           |
| 864578  | FIRE SUPPRESSION            | 830127 | 43,479          | 3,370                   | 46,849  | -01           |
| 864582  | INSTL TOWER PIPING          | 871113 | 19,597          |                         | 19,597  | -04           |
| 864583  | FOUNDATION INSTALLATION S   | 880226 | 42,792          | 2,500                   | 45,292  | -01           |
| 864808  | POWER CABLE REPAIRS         | 371218 | 10,320          |                         | 10,320  | -01           |
| 864836  | WIRE MESH FENCE             | 870113 | 21,592          |                         | 21,592  | -01           |
| 864839  | PERIMETER INSULATION        | 261120 | 14,300          | 500                     | 14,800  | -02           |
| 864843  | RPL - JOI-ER STACKS 30 24   | 871017 | 189,810         |                         | 189,810 | -01           |
| 864845  | RPR INDUSTRIAL EQUIPMENT P  | 800923 | 100,300         | 1,000                   | 101,300 | -01           |
| 864855  | PROF D; SITE PREPARATION E  | 800703 | 19,300          |                         | 19,300  | -01           |
| 864857  | RENOVATIONS TO OFFICES      | 870507 | 24,325          | 755                     | 25,080  | -01           |
| 864858  | CODE 55A COMPUTER AREA      | 870318 | 283,203         | 55,959                  | 339,167 | -13           |
| 864865  | ALSO OFFICE SPACE 3-Dx 12P  | 870209 | 172,511         | 1,287                   | 173,798 | -03           |
| 864866  | PAVING/DRAINING GATE 324 S  | 861201 | 69,058          | 355                     | 69,414  | -01           |
| 864882  | RPL PIPING & INSULATION K   | 870503 | 23,950          |                         | 23,950  | -01           |
| 864883  | RPL - COU-ING TOWER SPRINKL | 871020 | 65,351          |                         | 65,351  | -03           |
| 864893  | INSTALLATION OF PEAK SHAVE  | 830129 | 45,338          |                         | 51,785  | -03           |
| 864896  | DOITR/INSTALL STRIPPIING G  | 870615 | 52,600          |                         | 52,600  | -03           |
| 864900  | IMPROVEMENT & LANDSCAPING   | 861216 | 73,000          |                         | 75,000  | -01           |
| 864938  | SERVICE ACCESS DOORS        | 871221 | 91,293          |                         | 91,293  | -01           |
| 865060  | LADDER & STAIRS 3L33 15     | 871231 | 123,494         |                         | 123,494 | -03           |
| 865101  | SAVITARY SEWER RPR 3 A-T M  | 870715 | 22,968          | 5,717                   | 28,685  | -02           |
| 865105  | INSTL NEW ELECTRIC PANEL K  | 870502 | 159,420         | 5,373                   | 164,793 | -01           |
| 865108  | INST POWER SYS & GEN 531 M  | 860528 | 13,993          | 290                     | 14,283  | -01           |
| 865110  | EMERGENCY GENERATOR 5 3524  | 830322 | 156,800         | 5,674                   | 162,474 | -03           |
| 865111  | RPL - COMMUNTOR             | 870529 | 55,830          | 1,440-                  | 57,270  | -01           |
| 865116  | CLEANING OF REST ENGINE     | 861216 | 11,975          |                         | 11,975  | -01           |
| 865118  | PAINT & RPR STATION GTR5 F  | 831017 | 23,750          |                         | 23,750  | -07           |
| 865130  | MUD HVAC BLDG 149 3 204 M   | 870522 | 69,000          |                         | 74,393  | -03           |
| 865131  | STRUCT & HATCH RPR 3 275    | 871113 | 75,867          |                         | 76,367  | -03           |
| 865133  | PRECISION APPROACH PATH P   | 871008 | 53,500          |                         | 53,500  | -03           |
| 865136  | RPR ROOF BLDG 175           | 870317 | 436,540         |                         | 436,540 | -02           |
| 865140  | ALT & RPR STORM SEWERS B    | 870322 | 101,125         |                         | 105,061 | -03           |
| 865145  | HVAC COMMISSARY             | 871112 | 42,493          | 11,514                  | 60,011  | -03           |
| 865149  | FOJVD KING BORING MILL      | 861223 | 13,590          |                         | 13,590  | -01           |
| 865151  | SULFURIC ACID CONT 3562 M   | 871101 | 17,840          |                         | 21,074  | -01           |
| 865152  | ENTRANCE BLDG 123           | 870506 | 124,890         |                         | 132,933 | -01           |
| 865154  | POWER TO VATS               | 870607 | 14,465          | 9,043                   | 23,508  | -01           |

PVMDPF.STAFF1.CVTL





CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/86

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DOL-AR RANGE OF AWARD (\$300) <

JF: 88JJN30

PRJCDOC

LAS' MOD

CURPRI

MOD AMT  
CURPRI-AWARD

AWARD  
AMOUNT

300

DESCRIPTION

| PRJCDOC | DESCRIPTION                 | 300    | AWARD<br>AMOUNT | MOD AMT<br>CURPRI-AWARD | CURPRI    | LAS' MOD |
|---------|-----------------------------|--------|-----------------|-------------------------|-----------|----------|
| 803747  | REFINISH DRILL HAL-DECK D   | 870228 | 14,800          | 830                     | 15,630    | -01      |
| 803749  | PAINTING OF ADMINISTRATIVES | 870315 | 63,000          |                         | 63,000    | -01      |
| 803765  | RPRS OF TRANSFORMERS        | 870110 | 39,800          | 5,250-                  | 33,550    | -01      |
| 803770  | REPAIR OF ROOFS             | 861231 | 63,500          | 2,422                   | 65,922    | -01      |
| 803772  | INSTL OF SPRINKLER SYSTEM   | 870513 | 125,000         | 38,121-                 | 86,879    | -01      |
| 803773  | RENOVA. OF ASBESTOS         | 870232 | 25,200          |                         | 25,700    | -01      |
| 803775  | RPL OF ELECTRIC SERVICE     | 851310 | 19,262          |                         | 19,262    | -01      |
| 803797  | REPLACE SJVDRCH WIV/DOORA   | 830329 | 69,250          |                         | 82,102    | -01      |
| 803796  | TELEPHONE INSTALLATION      | 651130 | 11,115          | 44                      | 11,163    | -01      |
| 803904  | RPS/ALTS BLDG C-8           | 871125 | 18,300          | 1,713                   | 20,013    | -01      |
| 803909  | MAXIMIZE ACCESS IMPROVMT    | 870224 | 193,250         | 1,522                   | 194,772   | -01      |
| 803936  | RAILROAD RECONSTRUCTION     | 870312 | 1,069,545       | 37,288                  | 1,107,833 | -01      |
| 803939  | REPLACE HOILER BLDG. R-3    | 871222 | 149,315         | 3,782                   | 153,097   | -01      |
| 803942  | REPRS. TO BLDG. C-9         | 830135 | 82,600          | 7,051                   | 89,651    | -01      |
| 803944  | DEM0 BLDGS C-47, S-5, 517L  | 870131 | 24,999          | 970-                    | 24,009    | -01      |
| 803946  | CONST OF WJARD HOUSE        | 870331 | 19,470          | 1,542                   | 21,012    | -01      |
| 803949  | ALTS MAIN GATE BARLEY VJ    | 871216 | 190,000         | 4,552                   | 194,552   | -01      |
| 803950  | RPL OF ASROC AREA CRANE     | 850329 | 32,032          | 1,943-                  | 30,089    | -01      |
| 803965  | PERIMETER FENCING           | 830622 | 279,719         |                         | 279,719   | -01      |
| 803975  | INSTL OF MERRING UNITS      | 870227 | 10,430          | 1,837-                  | 8,593     | -01      |
| 803976  | RPL OF MAVALINE DOORS, V G  | 871231 | 345,000         |                         | 346,000   | -01      |
| 803995  | BALLFIELD LIGHTING          | 870115 | 33,862          |                         | 33,862    | -01      |
| 804451  | NEW COMP ROOM B - #712      | 851236 | 229,500         | 3,500-                  | 226,000   | -01      |
| 804464  | REPAIRS & ALTERATIONS       | 880418 | 228,000         | 4,745                   | 232,745   | -01      |
| 804465  | CONSTR PAINT SHOP STORAGE   | 870222 | 71,611          | 4,171                   | 75,782    | -01      |
| 804467  | TEST GAS LINE               | 871217 | 34,957          | 6,255                   | 41,212    | -01      |
| 804470  | COILING TOWER               | 871232 | 48,770          | 15,435                  | 64,205    | -01      |
| 804471  | ROOF MAIL STORAGE AREAS     | 661229 | 55,700          |                         | 55,700    | -01      |
| 804479  | AIR CURTAIN INSTALLATION    | 350322 | 23,000          | 450                     | 23,450    | -01      |
| 804483  | FAM HSG. RPRS. TRS. P       | 870514 | 51,130          | 159                     | 51,289    | -01      |
| 804485  | INSTL OF FIRE & ALARM SYSD  | 871215 | 95,988          | 1,590                   | 97,578    | -01      |
| 804486  | FIRE SUPPRES. & ALARM SYSTS | 830331 | 93,000          | 3,747                   | 96,747    | -01      |
| 804494  | FIRE & ALARM SYSTEM IMP     | 870320 | 59,400          |                         | 59,400    | -01      |
| 804496  | HEATED AIR CURTAIN INSTL    | 871129 | 41,809          |                         | 41,809    | -01      |
| 804499  | HOSPITAL STORAGE FACILITY   | 870121 | 57,311          |                         | 65,033    | -01      |
| 804500  | DEM0 7 BLDGS                | 309611 | 309,611         | 7,727                   | 365,301   | -01      |
| 804507  | FIRE ESCAPE STAIRS          | 871223 | 35,924          | 55,590                  | 35,924    | -01      |
| 804514  | FIRE SUPPRESSION            | 871230 | 20,900          | 300                     | 21,200    | -01      |
| 804535  | REPLACE WINDOWS BLDG. 736C  | 870321 | 10,123          |                         | 10,123    | -01      |
| 804562  | FIRE SUPPRESSION            | 871128 | 12,900          |                         | 12,900    | -01      |
| 804569  | FIRE SUPPRESS & ALARM SYSC  | 830318 | 53,580          |                         | 58,580    | -01      |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: SWS EXTRACT FILE

RUN DATE: 07/05/83

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OFF: 88JJN30

| PROCDOC | DESCRIPTION                | PO#      | AWARD AMOUNT | CUPPRI-AWARD | MOD AMT | CURPRI  | LAST MOD Y |
|---------|----------------------------|----------|--------------|--------------|---------|---------|------------|
| 803307  | REPAIRS TO ROOF            | M 370311 | 162,937      |              | 9,379   | 162,907 | -03        |
| 803314  | MOD PSYCHO ACOUSTIC RES. L | 361125   | 56,665       |              |         | 65,245  |            |
| 803315  | INT & EXT PTG              | 870416   | 25,155       |              |         | 26,155  |            |
| 803318  | REPL. LIGHTING GENERATOR A | 870519   | 39,296       |              | 5,239   | 44,335  | -01        |
| 803321  | RPR/ALFR HUMIDITY CONTROL  | 370304   | 123,793      |              | 13,111  | 141,901 | -03        |
| 803335  | REPAIRS TO WALLEY          | 661222   | 18,603       |              | 6,430   | 25,003  | -02        |
| 803347  | PKE MAINT AC TICH CON 420  | 600324   | 17,803       |              |         | 17,803  |            |
| 803350  | AIR CONDITIONING REPAIRS C | 870318   | 69,493       |              | 12,330  | 81,793  | -05        |
| 803352  | RPR HEAT EXCHANGE S        | 890205   | 255,843      |              | 1,330   | 257,723 | -03        |
| 803356  | HTJ & A/C APRS BLDG. 463 C | 830106   | 49,783       |              | 500-    | 49,183  | -01        |
| 803373  | RPR POWER CABLES VAULT 58E | 600308   | 13,503       |              | 2,353   | 15,558  | -02        |
| 803374  | REPL. OF HEATING UNITS C   | 870304   | 83,493       |              |         | 83,693  | -02        |
| 803391  | REPAIR FLOOR TILES         | 661106   | 15,933       |              |         | 15,933  |            |
| 803396  | RPR FEEDER                 | 55,715   |              |              | 30,289  | 87,006  | -05        |
| 803399  | RPR REFRACTORY             | 870319   | 12,163       |              | 7,234   | 19,402  | -01        |
| 803400  | RPR EXIT & EMERG LITS      | 661322   | 13,542       |              | 9,233   | 22,642  | -01        |
| 803408  | SECURITY GATES & WDTMS C   | 690229   | 279,803      |              | 23,543  | 303,343 | -02        |
| 803409  | SECURITY BOOTH IMPROVEMNTL | 870518   | 244,333      |              | 13,332  | 257,532 | -03        |
| 803424  | REPAIR GLAZING             | 361212   | 24,939       |              |         | 24,939  |            |
| 803443  | ALTS RPRS BLDG 37          | 870307   | 119,493      |              | 1,757-  | 116,735 | -03        |
| 803445  | ALTS RA 115-1150           | 870311   | 22,783       |              |         | 22,783  |            |
| 803447  | STAGING AREA BLDG 97       | 871127   | 187,816      |              | 3,426-  | 184,393 | -03        |
| 803449  | HYBRID LAB                 | 870506   | 374,545      |              | 23,770  | 403,315 | -03        |
| 803450  | INSTL BOILER BLDG 99       | 870529   | 85,825       |              | 534     | 86,359  | -01        |
| 803452  | UPGRADE ELEC DODGE 2040    | 870212   | 53,503       |              | 659     | 58,959  | -01        |
| 803459  | RPR UTILITIES PIER 7       | 871316   | 209,263      |              | 12,762  | 222,022 | -05        |
| 803469  | PLUMT EXISTING SEC FEV-EC  | 871316   | 69,873       |              | 21,313  | 90,883  | -03        |
| 803470  | EXT LTS IMPROVEMENT        | 870711   | 156,293      |              | 4,512   | 160,802 | -02        |
| 803471  | RPR FLR & WINDOWS 3-135 C  | 850128   | 135,493      |              | 13,330  | 145,493 | -02        |
| 803474  | RPR POOF B141              | 870226   | 47,303       |              | 23,732  | 67,732  | -02        |
| 803476  | RPR 3 ALT 3-1              | 861223   | 24,753       |              |         | 24,753  |            |
| 803478  | RPR PORCHES                | 871106   | 14,333       |              |         | 14,333  |            |
| 803479  | RPRS T3 FLR TLS 3 STR TRDT | 870301   | 12,996       |              | 1,420   | 14,416  | -01        |
| 803497  | RPRV. DEEP DRAFT CAMELS W  | 670330   | 124,333      |              | 2,330-  | 122,303 | -02        |
| 803609  | RPR ROOFS 3-164            | 560327   | 121,383      |              | 4,770-  | 115,313 | -01        |
| 803706  | ALTS FOR A VET FACILITY    | 860730   | 12,433       |              | 1,350   | 13,783  | -01        |
| 803707  | REIN WALL PARTITIONS       | 870519   | 23,503       |              |         | 23,503  |            |
| 803709  | INTERIOR PAINTING          | 860716   | 55,699       |              | 1,852   | 58,551  | -01        |
| 803711  | ALTS TO TYLJNAS HALL       | 560715   | 17,450       |              |         | 17,503  |            |
| 803733  | REPLACEMENT OF CONDENSER   | 650323   | 21,993       |              | 1,719   | 23,709  | -01        |
| 803744  | SECURITY IMPROVEMENTS      | 861331   | 15,503       |              | 1,730   | 17,203  | -01        |

PYDMDF-STAFF1.CNTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 3DD IS PAST AND ACTUAL  
 SOURCE: C4S EXTRACT FILE

RUN DATE: 3/7/05/83

46  
 P: 88JN3G

DOLLAR RANGE OF AWARD (\$3000) K

| PRCDCC | DESCRIPTION                 | 303    | AWARD AMOUNT | MOD AMT CUPPRI-AWARD | CURPRI  | LAST MOD N. |
|--------|-----------------------------|--------|--------------|----------------------|---------|-------------|
| 802502 | DEMO ALL ALIQUOT PROPERTIES | 800932 | 51,663       | 2,420                | 54,083  | -02         |
| 802503 | BEST SYSTEM INSTL           | 650534 | 37,420       | 748                  | 38,168  | -02         |
| 802511 | REPIPE MTG SYS BLDG 304     | 070115 | 61,293       | 23,359               | 85,162  | -05         |
| 802512 | PNT INT EXT VAR FLDS        | 870717 | 72,000       |                      | 72,000  |             |
| 802515 | PNT INT VAR BLDG            | 800930 | 11,097       |                      | 11,097  |             |
| 802528 | LIGHTING PROTECTION         | 830224 | 124,218      | 5,335                | 118,883 | -02         |
| 802531 | RAVINELEY GEN INSTA--       | 070320 | 19,400       |                      | 19,400  | -02         |
| 802532 | REAMP BLDG 294              | 861213 | 47,967       | 107                  | 47,967  | -02         |
| 802536 | STEAM PIT REPAIRS           | 830214 | 123,742      | 542                  | 123,100 | -01         |
| 802539 | CONSTR DEER FENCE           | 951209 | 43,193       | 15,199               | 58,392  | -04         |
| 802542 | ROAD CRACK SEALING          | 270711 | 135,865      | 3,536                | 132,329 | -02         |
| 802549 | 35 KV UPGRADE               | 870920 | 207,472      | 31,568               | 238,920 | -04         |
| 802565 | EMERGENCY GENERATOR         | 870104 | 23,000       |                      | 23,000  | -02         |
| 802567 | LIGHTING IMPROVEMENTS       | 800311 | 31,725       | 2,375                | 34,101  | -02         |
| 802574 | REPAVING CONC PAVEMENTS     | 870913 | 17,109       | 15,756               | 33,865  | -05         |
| 802578 | PERIMETER SECURITY FENCE    | 870311 | 390,000      | 25,016               | 415,016 | -05         |
| 802580 | ENC LIGHT HSP 1,2,3, 5      | 870706 | 15,000       |                      | 15,000  |             |
| 802586 | RRP TRAVSHELT LV APP 3-3    | 870512 | 177,375      | 11,558               | 189,333 | -07         |
| 802596 | RRP EXT BLDG 3              | 870123 | 55,300       | 535                  | 55,835  | -04         |
| 802599 | PAVING & SITE IMPROVEMENT   | 890116 | 184,265      | 5,535                | 189,800 | -05         |
| 802606 | GROUNDING SYSTEM            | 890204 | 72,804       |                      | 72,804  |             |
| 802633 | REPAIR EPDM ROOF 1,2,6 32   | 861212 | 33,950       |                      | 33,950  |             |
| 802635 | ROOF RRS, SHINGLES          | 870529 | 67,000       |                      | 67,000  |             |
| 802636 | FENCING                     | 870120 | 44,890       | 238                  | 45,128  | -01         |
| 802638 | RRP PAVEMENT BLDG 132       | 860727 | 15,850       |                      | 15,850  |             |
| 802640 | R/A G TAXIWAY STRIPING      | 861329 | 38,122       | 500                  | 37,622  | -01         |
| 802641 | ROOF RRS MAGAZINE AREA      | 870508 | 15,165       |                      | 15,165  |             |
| 802643 | ROOF RRS, VARIOUS BLDGS     | 870715 | 69,911       | 2,913                | 72,824  | -03         |
| 802644 | RRP T3 A/C CONCRETE PAVES   | 861223 | 77,934       |                      | 77,934  |             |
| 802646 | AIR MAINTENANCE VAHS        | 871106 | 128,990      | 24,587               | 153,577 | -11         |
| 802647 | PAINTING OF FAM HSS UNITS   | 860308 | 19,200       |                      | 19,200  |             |
| 802648 | REPL. SHOWER STALLS         | 880330 | 17,820       |                      | 17,820  |             |
| 802649 | INSTL TELECOMM. CABLE       | 860530 | 13,730       | 5,550                | 19,280  | -01         |
| 802649 | CONSTRUCT ENCLOSURES        | 870422 | 69,800       | 255                  | 70,055  | -01         |
| 805004 | PROV. SECURE ROOF 3,4,5,3   | 861125 | 15,250       |                      | 15,250  |             |
| 805010 | INST'L ROOF                 | 861201 | 45,767       | 500                  | 46,267  | -01         |
| 805204 | ROAD REPAIR                 | 860111 | 15,085       |                      | 15,085  |             |
| 805216 | DISC CONTACT SCK UP         | 861103 | 19,642       |                      | 19,642  |             |
| 805233 | VENTILATION SYSTEM          | 870217 | 13,500       |                      | 13,500  |             |
| 803236 | ELECTRICAL OUTLETS BLDG 110 | 861226 | 12,798       |                      | 12,798  |             |
| 803304 | OVERHAUL TURBINE GENER.     | 370918 | 800,000      | 125,110              | 925,110 | -05         |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/89

45

88JUN30

DOLLAR RANGE OF AWARD (\$300) X

| PRC000: | DESCRIPTION                    | 900 | AWARD<br>AMOUNT | CUPRI-AMWD | MOD AMT | CUPRI     | LAST<br>MOD V/F |
|---------|--------------------------------|-----|-----------------|------------|---------|-----------|-----------------|
| 861590  | RPR TO ELEC DIST. B-29         | R   | 466,000         | 63,022     | 63,022  | 532,022   | -04             |
| 861711  | VENT. SEWAGE LIFT STATION      | C   | 73,583          | 1,358      | 1,358   | 79,741    | -01             |
| 861712  | RNV CONCR. RELOCATE LINE       |     | 43,765          | 5,021      | 5,021   | 45,787    | -01             |
| 861719  | CONSTRUCT TRUCK/RAIL DOCK      |     | 65,000          | 23,971     | 23,971  | 105,971   | -01             |
| 861721  | REPL. CHILLER BLDG. 370        | Y   | 85,000          | 1,397      | 1,397   | 86,503    | -02             |
| 861722  | RPR BREACHING BOILER B-30M     |     | 11,220          |            |         | 11,220    | -01             |
| 861725  | NEW ROOF JITTERS B-1EG1        |     | 23,400          |            |         | 23,400    | -01             |
| 861720  | 2ND EXIT FROM BASEMENT         | C   | 15,860          |            |         | 15,860    | -01             |
| 861732  | EXT. PAINTING FAMILY HSS.      | K   | 184,340         | 5,392      | 5,392   | 192,722   | -04             |
| 861735  | RPR NO. 1 & 2 ELEVATORS        |     | 23,649          |            |         | 23,649    | -01             |
| 861740  | TEL. SERV. EGPT. BLDG. 151     | J   | 26,400          |            |         | 26,400    | -01             |
| 861744  | MODIFY ASKCC. PITS-113         | L   | 13,750          |            |         | 10,750    | -01             |
| 861761  | ACCESS FLOOR PANEL RPRS.       | C   | 13,500          |            |         | 10,500    | -01             |
| 861764  | RPRS. C/H CRANES               |     | 32,860          | 12,000     | 12,000  | 44,860    | -02             |
| 861775  | REPLACE CHAIN LINK FENCE       | E   | 25,888          |            |         | 26,888    | -02             |
| 861776  | A/C TWO CLASSROOMS B-350       | R   | 32,240          |            |         | 32,240    | -02             |
| 861780  | HAZ. WASTE STORAGE FAC.        | P   | 181,900         | 6,067      | 6,067   | 185,367   | -02             |
| 861783  | RE-ROOF NO PORCH STRS. A B     |     | 12,154          |            |         | 12,154    | -01             |
| 861780  | PAVE PARKING AREA B-200        |     | 18,860          |            |         | 18,860    | -01             |
| 861788  | TELEPHONE SYSTEMS B-407, B-42M |     | 101,308         | 221,908    | 221,908 | 323,216   | -05             |
| 861805  | INSTAL. AIR COND. P-112        | B   | 43,000          | 3,416      | 3,416   | 51,416    | -01             |
| 861809  | TAPE STORAGE BLDG. 107         | B   | 143,300         | 12,789     | 12,789  | 156,089   | -02             |
| 861811  | BOILER REPAIRS BLDG. 113       | S   | 28,890          |            |         | 28,890    | -02             |
| 861814  | HVAC-PISTOL RANGE B-440        |     | 19,985          |            |         | 18,885    | -01             |
| 861815  | NEW OFFICE AREA BLDG. 1171     |     | 17,340          |            |         | 17,340    | -01             |
| 861823  | REPL. PRIVACY FENCES HSS.      | P   | 78,000          | 323        | 323     | 77,677    | -01             |
| 861829  | REPAIR CARPORTS                | G   | 41,463          | 132        | 132     | 41,645    | -01             |
| 861832  | ALTS ROICC OFFICE B-DG.        | H   | 22,350          |            |         | 22,350    | -01             |
| 861844  | REMOVE COLLIMATION TOWER       |     | 24,500          |            |         | 24,500    | -01             |
| 861845  | TOILET RENOV. BLDG. 102        | C   | 68,550          | 2,308      | 2,308   | 70,958    | -01             |
| 862102  | LADY RESTRM. BLDG. 207-235     | J   | 59,500          | 5,533      | 5,533   | 65,033    | -06             |
| 862106  | RPL. PUMPS W/D #3              |     | 133,000         |            |         | 133,000   | -03             |
| 862108  | STRU. RPRS. BERTH 11           | C   | 263,455         | 1,580      | 1,580   | 270,136   | -05             |
| 862109  | RPR/INS ROOF BLDG. 137-235P    |     | 93,437          | 71,573     | 71,573  | 162,110   | -05             |
| 862114  | NETAOK XPR REPLACEMENT C       |     | 263,597         | 333        | 333     | 261,530   | -02             |
| 862116  | BOILER/TURBINE MAINT/RPR H     |     | 974,739         | 35,052     | 35,052  | 1,010,841 | -06             |
| 862121  | GEAR RENTS FACILITY            | J   | 105,539         | 5,536      | 5,536   | 99,003    | -02             |
| 862123  | REPR. RPR SIDING MOSE DOCKT    |     | 2,697,000       | 145,338    | 145,338 | 2,843,388 | -15             |
| 862303  | RPRS TO OVERHEAD DOORS         |     | 24,240          |            |         | 24,240    | -01             |
| 862361  | REPAIR TO TURBINE              | D   | 143,755         | 1,012      | 1,012   | 139,743   | -07             |
| 862500  | DEM. B-DG 15 AND B-DG 23AC     |     | 197,580         | 3,868      | 3,868   | 203,528   | -03             |

PUMP&F. STAFF. CNT.





CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

43 RUN DATE: 07/05/38

DOLAR RANGE OF AWARD (\$300) K

F: 88JUN3U

PROCDOC

| PROCDOC | DESCRIPTION                  | 900    | AWARD<br>AMOUNT | MOD AMT<br>CURPRI-AWARD | CURPRI    | LAST<br>MOD V: |
|---------|------------------------------|--------|-----------------|-------------------------|-----------|----------------|
| 859512  | REMOVE ASS INS. A/C = 150C   | 861229 | 129,983         | 25,244                  | 155,227   | -32            |
| 859517  | CARD READERS                 | 860117 | 24,985          |                         | 24,985    |                |
| 859518  | INCINERATOR BLDG             | 860506 | 81,990          | 245-                    | 81,745    | -32            |
| 859519  | STONE WALL REM/LNDSHIP       | 850903 | 24,950          |                         | 24,950    |                |
| 859521  | DOMESTIC HOT WATER P.33 T    | 850729 | 87,200          |                         | 87,200    | -32            |
| 859523  | PARKING AREA, 9.4*7          | 851127 | 19,525          |                         | 19,525    | -31            |
| 859524  | MODIFY WATER SYS, 3.85       | 850708 | 23,514          | 4,304                   | 27,918    | -33            |
| 859527  | UNDERGRND FUEL TANK H1       | 850905 | 14,800          | 1,000                   | 15,800    | -32            |
| 859528  | NEW DUCT BANKS               | 851119 | 12,419          | 4,477                   | 16,895    | -33            |
| 859532  | PAD HTR TANK, 5.179          | 851125 | 15,920          |                         | 15,920    | -31            |
| 859538  | A/C DUCT 5.147               | 851218 | 11,400          |                         | 11,400    | -31            |
| 859555  | REVISION FOR PIPING SYS      | 870126 | 197,511         | 557                     | 198,068   | -33            |
| 859558  | AMBULANCE ENTRANCE 3.1       | 870328 | 101,350         | 13,139                  | 114,489   | -33            |
| 859599  | OXFORD AVE ENTRANCE          | 860411 | 17,203          | 530                     | 17,733    | -31            |
| 859782  | RPL RR SIGNALS               | 861121 | 103,945         |                         | 103,945   |                |
| 859786  | F44 HSE. - ADDL. PARKING     | 870701 | 11,988          | 2,745                   | 14,733    | -31            |
| 863004  | INSTALL ADD'L ESAT'S         | 870316 | 109,200         | 1,163                   | 124,363   | -33            |
| 863010  | VEHICLE MAINTENANCE SHOP     | 871218 | 1,005,000       | 91,514                  | 1,097,514 | -37            |
| 863022  | NAVY LODGE FACILITY SYSTEM   | 870930 | 2,695,000       | 65,145                  | 2,760,145 | -15            |
| 863041  | WATER DISTRIBUTION SYSTEM    | 870710 | 133,000         | 1,916                   | 134,916   | -31            |
| 863042  | STATION DRAINAGE             | 871008 | 193,500         | 3,781-                  | 197,281   | -33            |
| 863043  | TEMP LODGING FACILITY        | 870904 | 3,083,000       | 27,185-                 | 3,110,185 | -15            |
| 863052  | COMPL OF DEFAULT CONTRAC     | 870515 | 233,500         | 1,790-                  | 235,290   | -34            |
| 863060  | HOT W-L & PUMP HOUSE         | 870904 | 484,049         | 7,570                   | 491,619   | -35            |
| 863061  | REPAIR AIRCRAFT RAMP AREA    | 870208 | 2,934,577       | 87,751                  | 3,022,328 | -07            |
| 863096  | RPR/AS IS SEMECA LAKE DETM   | 871011 | 214,127         | 1,225                   | 215,352   | -34            |
| 863102  | TORBEDO MK3400CAP - LIFE CYM | 830510 | 2,030,567       | 35,539                  | 2,066,106 | -33            |
| 863297  | UEPH UPGRADE/ATC CRT LAKER   | 830129 | 2,177,249       | 79,934                  | 2,257,183 | -39            |
| 863298  | FIRE A-ARM SYSTEM            | 871116 | 53,340          | 19,535                  | 72,875    | -35            |
| 863307  | RPR STATION FUEL PIER        | 871209 | 355,700         |                         | 355,700   |                |
| 863314  | PLAYGROUND AREA              | 830508 | 47,640          |                         | 47,640    |                |
| 863400  | MOD BOILER RM TRNG STRUCTA   | 870201 | 144,269         |                         | 144,269   | -32            |
| 863402  | RECREATION FAC EXPANSION     | 870424 | 193,403         | 3,200                   | 196,603   | -31            |
| 863409  | RPR STA PERIM FENCE (PHSE2   | 830428 | 73,700          |                         | 73,700    | -31            |
| 863414  | RPR TO FOOD PREP AREA        | 870721 | 101,300         |                         | 101,300   | -31            |
| 863415  | REARV REPLACE AIRWAYS INC    | 850531 | 232,000         | 2,928                   | 234,928   | -32            |
| 863416  | ALT EDF VENT SYS, 3-103      | 870530 | 114,097         | 4,530-                  | 118,627   | -32            |
| 863418  | REMOVE ASBESTOS SIDING 340C  | 870429 | 233,500         | 7,387                   | 240,887   | -34            |
| 863419  | REPLACE TRANSFORMERS         | 870327 | 95,939          |                         | 95,939    | -31            |
| 863422  | RPR THEATRE 2                | 820307 | 57,700          | 3,254                   | 60,954    | -31            |
| 863425  |                              | 871230 | 944,714         |                         | 944,714   | -34            |

PVNDJF.STAFF1.CNT.



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

44 RUN DATE: 3/7/05/03

PRCDDOC : 06JUN03

DOLLAR RANGE OF AWARD (\$300) <

| PRCDDOC | DESCRIPTION                  | 900    | AWARD AMOUNT | CURPRI-AWARD | MOD AMT | CURPRI  | LAST MOD YR |
|---------|------------------------------|--------|--------------|--------------|---------|---------|-------------|
| 801310  | Y3795/FIRE/SMOKE DETECT/RC   | 870106 | 18,374       |              |         | 18,374  | -01         |
| 801311  | REPAIR STLAM AND CONDENSTR   | 870101 | 173,000      |              | 3,171-  | 174,829 | -03         |
| 801312  | RPR DAMAGE CONT TRAINER C    | 870113 | 13,444       |              |         | 13,444  |             |
| 801313  | INSTAL HEAT PLANT            | 871103 | 13,600       |              |         | 13,600  | -01         |
| 801314  | FIRE ALAC 3 ALARM SYSTEM A   | 870801 | 23,680       |              | 1,065   | 24,725  | -01         |
| 801315  | RPLC ROOF-FAN/GAR 175        | 871231 | 135,650      |              |         | 136,650 | -01         |
| 801316  | RENOVATIONS TO OFFICE        | 890424 | 59,100       |              |         | 59,100  | -01         |
| 801317  | WILOW GROVE ROOF REPAIR G    | 871023 | 65,450       |              | 3,077   | 66,450  | -01         |
| 801318  | ALT TO ENLISTED MESS C=ENP   | 870508 | 132,715      |              | 59,334  | 147,792 | -03         |
| 801319  | RPR COAM OFFICERS MESS       | 871031 | 691,257      |              | 499-    | 750,591 | -03         |
| 801320  | DEMOLISH BUILDINGS           | 871015 | 39,999       |              |         | 39,950  | -01         |
| 801321  | HANDICAP FACILITIES B.1 G    | 870317 | 75,850       |              | 3,575   | 78,425  | -03         |
| 801322  | CAM AIR COND.HTG.            | 870316 | 37,493       |              |         | 37,693  |             |
| 801323  | ALTERATIONS BLDG.143         | 861030 | 26,000       |              |         | 26,000  | -02         |
| 801324  | INT. & EXT. PAINTINGS        | 870501 | 25,000       |              | 55,144  | 81,144  | -03         |
| 801325  | RPR ROOF, 3-06, 38           | 860312 | 195,080      |              | 7,030-  | 189,050 | -03         |
| 801326  | BASEMENT RENOV./BLDG.079 R   | 870708 | 306,640      |              | 19,313  | 323,953 | -04         |
| 801327  | ROOF REPLACEMENT B.76        | 861114 | 21,210       |              |         | 21,210  | -02         |
| 801328  | REPL.TWJ ATTL'SB.335         | 870224 | 42,522       |              | 1,853   | 44,385  | -01         |
| 801329  | REPL.PIPING P. 68            | 870113 | 20,300       |              | 2,725   | 23,025  | -01         |
| 801330  | ACCUSTIC DEADING B-1171 M    | 870129 | 39,555       |              |         | 39,565  | -01         |
| 801331  | ROOF REPL. BLDG. 03          | 870922 | 163,000      |              |         | 163,000 | -02         |
| 801332  | CHLORINATION STA. -AKTON G   | 870917 | 54,490       |              | 6,475   | 58,965  | -02         |
| 801333  | REPL. PIPING, B. A5, 6, 44 P | 871211 | 385,515      |              | 73,700  | 465,215 | -02         |
| 801334  | ROOF REPL.3-4,1,4,4,6,73 E   | 870720 | 153,831      |              | 2,009   | 160,340 | -05         |
| 801335  | REPL.#2 COMPRESSOR 3-1154E   | 870601 | 22,475       |              |         | 22,475  | -02         |
| 801336  | PHYS MODS TO BLDG E-317 I    | 870205 | 19,945       |              |         | 19,945  | -01         |
| 801337  | VENT. CNST. 3-446            | 861033 | 22,000       |              |         | 22,000  | -03         |
| 801338  | REPL. COND. PIPE, 3-1 P S    | 900328 | 123,000      |              |         | 123,000 | -03         |
| 801339  | CONNECT BLDGS. 1176&147 I    | 870518 | 225,895      |              | 7,840   | 233,735 | -03         |
| 801340  | RPR. CARPORT ROOFS, MEL. F D | 861008 | 20,850       |              |         | 20,850  | -02         |
| 801341  | COMPUTER RM. A/CB. 991       | 870306 | 13,747       |              | 234-    | 18,513  | -02         |
| 801342  | REPL. EXHAUST FANS 3, 292 P  | 870320 | 67,300       |              | 920     | 68,220  | -02         |
| 801343  | VENTILATION, BLDG. 440 C     | 870710 | 25,983       |              | 1,309   | 27,297  | -02         |
| 801344  | WINDOW REPL. BLDG. 1-A F     | 870127 | 12,069       |              | 328-    | 11,741  | -03         |
| 801345  | GUTTER-MASONRY RFRS. 1172P   | 871222 | 57,000       |              |         | 57,000  | -01         |
| 801346  | CANOPY 3-177-VEST. 1-14 M    | 870717 | 49,475       |              |         | 49,475  | -01         |
| 801347  | VINYL WALLCOVERING 3. 442M   | 871022 | 26,849       |              |         | 26,849  | -01         |
| 801348  | WEATHERPROOF EX. 3-22&43L    | 871116 | 167,000      |              |         | 173,904 | -01         |
| 801349  | RPRS TO OVERHEAD DOORS K     | 870512 | 162,680      |              | 3,332   | 165,962 | -03         |
| 801350  | RPRS VEHIC-E LIFTS, B.P M    | 890105 | 63,283       |              | 29,149  | 97,432  | -02         |

PVMDPF.STAFF1.CNTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE B/D IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

42 RUN DATE: 07/05/83

DOLLAR RANGE OF AWARD (\$300) K

| PRJCD0C | DESCRIPTION                 | 80D    | AWARD<br>AMOUNT | MOD AMT<br>CURPRI-AWARD | CURPRI  | LAST<br>MOD N. |
|---------|-----------------------------|--------|-----------------|-------------------------|---------|----------------|
| 857650  | CONDENSATE LINE             | 561310 | 147,797         |                         | 147,797 | -05            |
| 857650  | RPCS TO LEAKY TO BLDG 1400H | 271123 | 201,583         | 3,327                   | 204,915 | -01            |
| 857660  | STEAM SEWER REPAIR 4035     | 871323 | 293,599         | 35,358                  | 329,667 | -02            |
| 857665  | REPAIRS TO BLDG. 803        | 830429 | 371,880         | 14,433                  | 386,283 | -04            |
| 857674  | CON IMPERV MEMBRANE         | 660323 | 66,502          | 3,422                   | 68,324  | -04            |
| 857693  | REPL EVAPORATOR TUBES       | 250328 | 55,337          | 53,313                  | 108,850 | -01            |
| 857900  | INSTAL WMS MK25, 24FS 115   | 551310 | 210,200         | 15,488                  | 225,588 | -01            |
| 857908  | REPL SIDING NRC             | 860434 | 26,967          | 2,415                   | 27,383  | -01            |
| 857917  | PAINT/DOOR REPAIR           | 551107 | 48,704          |                         | 48,704  | -01            |
| 857932  | SEAL PARKING LOT            | 880127 | 24,900          |                         | 24,900  | -04            |
| 857938  | MOD. STEAM DISTRIBUTION     | 871218 | 171,654         | 17,718                  | 189,372 | -02            |
| 857939  | RELOC PRV STATION BLDG 11N  | 870321 | 240,000         |                         | 240,000 | -02            |
| 857940  | UPGRADE ELECTRIC            | 561111 | 145,900         | 31,554                  | 178,564 | -05            |
| 857972  | STEAM DISTRIBUTION SYSTEM   | 870430 | 197,393         | 11,791                  | 209,174 | -05            |
| 858300  | ALUMINUM SIDING BLDG #454   | 650323 | 57,333          |                         | 57,333  | -02            |
| 858314  | ALJ4 SIDING BLDG. #10       | 650323 | 169,375         |                         | 169,375 | -01            |
| 858333  | REPLACE GARAGES             | 651125 | 24,511          |                         | 24,511  | -02            |
| 858346  | GLAZED CURTAIN WALL P-245   | 650734 | 13,400          |                         | 13,400  | -02            |
| 858432  | CONSTRUCT BATHHOUSE         | 601312 | 115,985         | 3,074                   | 118,959 | -02            |
| 858434  | RPCS TO SNOW BLOWER         | 850312 | 20,361          | 15,327                  | 36,688  | -02            |
| 858500  | INST GOVT FURN GENERATOR V  | 851136 | 29,994          | 353                     | 30,347  | -01            |
| 858501  | INSTLL GOVT GENERATOR #20   | 851128 | 21,500          |                         | 21,500  | -01            |
| 858504  | ROOFER L B-1                | 550319 | 27,900          |                         | 27,900  | -01            |
| 858528  | REPLACE ROOF #25            | 651136 | 21,082          | 980                     | 22,062  | -05            |
| 858776  | ASBESTOS REM                | 861334 | 30,000          | 70,000                  | 100,000 | -05            |
| 858779  | MISC INSULATION INSTAL      | 670135 | 30,000          | 50,000                  | 80,000  | -03            |
| 858936  | INSTAL. A/C UNIT            | 850322 | 11,800          |                         | 11,800  | -03            |
| 858940  | NEW ALUMINUM DOORS          | 351330 | 12,300          |                         | 12,300  | -07            |
| 859004  | REPAIRING OF QUARTERS       | 861315 | 73,500          |                         | 73,500  | -02            |
| 859031  | EDASRE INST BLDG 3          | 860327 | 127,190         | 32,519                  | 127,931 | -02            |
| 859332  | HOLLOW METAL DOORS          | 270336 | 19,800          |                         | 19,800  | -03            |
| 859322  | OUTPATIENT PARKING -CT      | 651321 | 49,410          | 5,655                   | 55,065  | -01            |
| 859325  | PARKING LOT                 | 650132 | 22,599          |                         | 22,599  | -02            |
| 859244  | INSTAL TWO FIRE STANDPIPE   | 850319 | 16,545          |                         | 16,545  | -03            |
| 859245  | MEZZANINE/WATER LIFT #11J   | 870210 | 49,433          |                         | 49,433  | -01            |
| 859502  | INSTAL. A/C #105A           | 670310 | 45,732          | 321                     | 47,053  | -01            |
| 859504  | REV. FOR A/C #130           | 661113 | 89,493          | 917                     | 90,410  | -04            |
| 859506  | NEW OVERHEAD DOORS #119     | 870322 | 13,920          |                         | 13,920  | -04            |
| 859506  | CONF. RM. #600CK-UP #117C   | 870314 | 73,493          |                         | 73,493  | -02            |
| 859511  | REVISE DISPLAY LAB          | 631310 | 63,950          | 2,659                   | 66,609  | -02            |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE JDD IS PAST AND ACTUAL-  
 SOURCE: CMS EXTRACT FILE

41 RUN DATE: 07/05/63

DOLLAR RANGE OF AWARD (\$300) K

| PRC000: | 500                       | AWARD AMOUNT | CURPRI-AWARD | MOD AMT | CURPRI  | LAST MOD NB- |
|---------|---------------------------|--------------|--------------|---------|---------|--------------|
| 857196  | RPR CONCRETE              | 53,791       |              |         | 53,791  | -02          |
| 857200  | SEC ADJ TO JUTER PERIM    | 57,555       |              | 5,834   | 64,489  | -02          |
| 857220  | CONSTRUCT ARIES II        | 135,344      |              | 1,337   | 136,681 | -02          |
| 857275  | 8-1000 RPR CEILING/GHTS J | 65,128       |              | 25,256  | 91,409  | -05          |
| 857290  | CONSTR TEST & STOR BLDG P | 176,400      |              | 4,374   | 179,774 | -04          |
| 857372  | RE-ROOF BLDG. #2          | 24,270       |              |         | 24,270  | -01          |
| 857381  | PAINTING OF WATER TANK    | 32,970       |              |         | 32,970  | -01          |
| 857390  | ALUMINUM SIDING BLDG. #3L | 71,533       |              |         | 71,533  | -02          |
| 857700  | WHERRY APARTMENT IMPS     | 420,610      |              | 14,358  | 434,668 | -01          |
| 857701  | INCINERATOR RPL 83-4      | 145,900      |              | 2,922   | 148,722 | -01          |
| 857702  | ROGER STREET EXTENSION    | 79,697       |              |         | 79,697  | -01          |
| 857705  | RODE REPL BLDG #1123      | 279,450      |              | 17,791  | 297,231 | -02          |
| 857706  | REPLACE TRANSPORTER       | 58,100       |              |         | 58,100  | -01          |
| 857712  | ADPT'S & HDS TO VACUUM    | 109,300      |              | 523-    | 109,177 | -02          |
| 857719  | REPLACE LAIP HAND-ERS     | 182,222      |              | 1,538-  | 180,584 | -01          |
| 857726  | REPLACE STEAM & COND      | 415,000      |              | 7,936-  | 407,064 | -01          |
| 857728  | FAMILY HOUSING            | 166,700      |              | 41,338  | 207,738 | -05          |
| 857729  | REEROOF BLDG 301 OLATHE   | 12,554       |              |         | 12,554  | -05          |
| 857731  | DEMO F-JUDIZED BOILER     | 339,300      |              | 5,928   | 345,128 | -01          |
| 857732  | FIRE HYDRANT INSTA-TATION | 29,013       |              | 5,592   | 35,710  | -01          |
| 857735  | DEMO SEWAGE DIGGER        | 108,000      |              |         | 108,000 | -01          |
| 857740  | REPLACE AIR COMPRESSOR    | 91,585       |              |         | 91,585  | -04          |
| 857746  | DEMO 0-65 AYC VACCJ-ATOR  | 174,000      |              |         | 174,000 | -03          |
| 857790  | DEMO 2223-VTC             | 77,800       |              | 566     | 78,366  | -03          |
| 857802  | REPL FEEDWATER CONTROLS   | 138,900      |              | 5,955   | 144,855 | -02          |
| 857807  | MISSILE PAD SITE PREP     | 347,045      |              | 29,800  | 377,445 | -03          |
| 857810  | REPL. OF EXT. WINDWS      | 345,000      |              | 22,241  | 367,241 | -03          |
| 857817  | REPL. OF FLOOR TILE       | 68,248       |              |         | 68,248  | -01          |
| 857819  | CONDUCTIVITY REPL. SUI-EP | 43,473       |              |         | 43,473  | -01          |
| 857821  | ROOF R-21-NYCRG, MADISON  | 135,000      |              | 17,500- | 119,500 | -01          |
| 857822  | REPAIR SANITARY SEWERS    | 44,350       |              | 3,724-  | 40,626  | -02          |
| 857824  | ROOF REPLACEMENT          | 62,330       |              |         | 62,330  | -02          |
| 857825  | DEMO ASH SILO BLDG 3511   | 15,850       |              |         | 15,850  | -01          |
| 857826  | DEMOLISH COAL SILO, U-11  | 35,800       |              |         | 35,800  | -02          |
| 857829  | FLYASH-E STOPAGE          | 195,243      |              | 2,252   | 197,500 | -03          |
| 857834  | DAMAGE CONTROL TRAINER    | 136,444      |              | 1,635   | 135,809 | -03          |
| 857835  | DAMAGE TRAINER            | 135,019      |              | 350     | 135,369 | -03          |
| 857836  | DAMAGE CONTROL TRAINER    | 129,304      |              | 6,951   | 134,255 | -03          |
| 857844  | APR BRUNSON AVENUE        | 97,463       |              |         | 97,463  | -04          |
| 857845  | REPAIR PARKING LOT        | 163,970      |              |         | 163,970 | -04          |
| 857846  | REPL OF HIGH LIFT P-JMP   | 63,900       |              | 1,312-  | 67,688  | -04          |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL.  
 SOURCE: CWS EXTRACT FILE

| 40      | RUN DATE:                   | 07/05/83 | DOL-LAR RANGE OF AWARD (\$3000) K | AWARD AMOUNT | MOD AMT   | CURPRI      | LAST MOD N- |
|---------|-----------------------------|----------|-----------------------------------|--------------|-----------|-------------|-------------|
| PRCDDC: | DESCRIPTION                 | 303      | AWARD AMOUNT                      | MOD AMT      | CURPRI    | LAST MOD N- |             |
| 855974  | SEC IMPROVEMENTS            | 570139   | 74,943                            | 9,283        | 84,226    | -01         |             |
| 855970  | WINDOW REPAIR REDCOA FIVEL  | 650124   | 35,345                            | 1,333        | 37,223    | -01         |             |
| 855408  | COMPILING CONSTR DOCUMENT   | 850231   | 14,915                            | 9,277        | 24,193    | -01         |             |
| 855484  | EXHAUST GAS COOLER MOVS K   | 551126   | 13,505                            | 875          | 14,380    | -01         |             |
| 855708  | RPR PARKING LOT AT NYC T    | 650530   | 14,815                            |              | 14,815    | -01         |             |
| 855710  | RPR PARKING LOT G           | 850919   | 14,815                            |              | 14,815    | -01         |             |
| 855720  | DAMAGE CONTROL TRAINER F    | 671328   | 194,444                           | 1,274        | 195,719   | -02         |             |
| 855767  | PARKING LOT REPAIRS T       | 651131   | 15,109                            | 2,578        | 17,687    | -01         |             |
| 857000  | REPLACE WATER HEATER 3150E  | 660228   | 33,500                            | 10,456       | 43,956    | -02         |             |
| 857004  | THICK FILM FACILITY G       | 851210   | 318,000                           |              | 318,000   | -01         |             |
| 857010  | RECOAT TENNIS COURTS L      | 950430   | 35,688                            | 150          | 35,838    | -01         |             |
| 857318  | RPMNT AVAC IN BLDGS. 2315T  | 870319   | 195,375                           | 5,931        | 202,305   | -01         |             |
| 857319  | STEEP ADD 372930            | 660310   | 346,242                           |              | 346,242   | -03         |             |
| 857320  | CONSTRUCT 3RD DECK L        | 870242   | 147,129                           | 9,009        | 156,137   | -02         |             |
| 857331  | ENL DCK 3142/2ND DECK T     | 560324   | 199,985                           | 15,863       | 216,848   | -04         |             |
| 857335  | ALTER VAX II COMPUTER       | 560338   | 79,775                            |              | 79,775    | -01         |             |
| 857337  | LANDSCAPE/SIDEWALK RPR 31B  | 560331   | 21,729                            | 1,900        | 23,629    | -02         |             |
| 857342  | NEW PARTITION WALL          | 871237   | 17,493                            |              | 17,493    | -01         |             |
| 857346  | RPL INCANDESCENT LIGHTS R   | 660315   | 12,213                            | 100          | 12,313    | -01         |             |
| 857350  | ALTS TO FLOORS. 355         | 650311   | 235,261                           |              | 235,261   | -01         |             |
| 857357  | ALT. TO BLDG. 365           | 871111   | 1,417,000                         | 30,570       | 1,447,570 | -01         |             |
| 857358  | ADVN TO BLDG. 2592          | 870929   | 149,934                           | 4,192        | 154,095   | -01         |             |
| 857359  | REPAIR OF BUILDINGS H       | 871116   | 312,285                           | 5,563        | 317,828   | -02         |             |
| 857362  | HMY RESURFACE /BCKNS LOFS O | 961133   | 392,168                           | 35,073       | 428,241   | -04         |             |
| 857363  | RPL ROOF VAR BLDGS A        | 961118   | 225,020                           | 19,759       | 244,779   | -01         |             |
| 857070  | ROLLER RPL 3-77             | 861315   | 45,925                            |              | 45,925    | -01         |             |
| 857071  | REPL. SUND. LINE AND PJMPD  | 650117   | 21,555                            |              | 21,555    | -01         |             |
| 857072  | ELECTRICAL CONDUIT G        | 870931   | 2,060,000                         | 65,300       | 2,125,300 | -12         |             |
| 857074  | FIRE-DETECTION S            | 870520   | 185,410                           | 12,857       | 198,277   | -05         |             |
| 857075  | REPLACE RAIL/TURNOJT S      | 880237   | 3,432,000                         | 1,717,569    | 5,149,569 | -05         |             |
| 857076  | REPLACEMENT FOR COPE LA33M  | 660337   | 33,100                            |              | 33,100    | -01         |             |
| 857081  | SPILL CONTAINMENT STRUCTUS  | 860423   | 35,379                            |              | 35,379    | -01         |             |
| 857086  | FIRE-DETECTION, CAST LOAD R | 870938   | 295,715                           | 12,713       | 309,429   | -02         |             |
| 857089  | RPR/A-TS 3RDG 2001          | 570436   | 92,000                            | 19,903       | 111,903   | -03         |             |
| 857091  | ALT TO 5-2521               | 970710   | 137,000                           | 747          | 137,747   | -02         |             |
| 857094  | RPL GENERATOR 3M-150 C      | 601239   | 97,593                            |              | 97,593    | -01         |             |
| 857095  | INSTAL. OF COND F-JOHNINGT  | 960434   | 190,000                           |              | 190,000   | -03         |             |
| 857095  | INTERIOR PAINTING H         | 870116   | 77,285                            |              | 77,285    | -01         |             |
| 857096  | CU-VERT FPLAT S             | 671312   | 265,475                           | 5,274        | 270,749   | -03         |             |
| 857096  | RE-LOCATE COMPTROLLER S     | 871125   | 221,881                           |              | 221,881   | -04         |             |
| 857193  | STAVE ROAD MAINTENANCE T    | 361126   | 233,345                           | 3,713        | 237,058   | -01         |             |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| 39      | RUN DATE:                  | 37/05/86 | DOLLAR RANGE OF AWARD (\$000) K | WARD AMOUNT | MOD AMT      | CURPRI  | LAST MOD VGR |
|---------|----------------------------|----------|---------------------------------|-------------|--------------|---------|--------------|
| PRCDDC: | DESCRIPTION                | GO3      | WARD AMOUNT                     | MOD AMT     | CURPRI-AJARD | CURPRI  | LAST MOD VGR |
| 855109  | SPILL CONTAINMENT P-ANT 2S | 851231   | 27,071                          | 5,282       |              | 33,353  | -03          |
| 855174  | CONTRCT NEW PAVEMENTS R    | 630411   | 94,531                          | 200-        |              | 94,431  | -01          |
| 855179  | RPRS TO FIRST FLR WINDWSS  | 570422   | 61,433                          |             |              | 61,433  | -01          |
| 855180  | PINEHURST HEATING G        | 334433   | 33,433                          | 2,117       |              | 40,547  | -03          |
| 85524   | RPL OF GAS TANKS & PUMPS F | 603110   | 95,554                          | 5,333       |              | 101,864 | -02          |
| 85532   | PLATFORM RAILINGS U        | 601212   | 45,000                          |             |              | 44,000  | -04          |
| 855365  | DENTAL CLINIC RENOV N      | 603115   | 26,591                          | 16,832      |              | 41,583  | -03          |
| 855501  | RENOV TO OFFICE/LOCKER RMH | 550330   | 57,993                          | 4,253       |              | 62,253  | -02          |
| 855547  | DEMOLISH INCINERATOR M     | 551231   | 77,587                          | 5,732       |              | 84,419  | -02          |
| 855567  | WAREHOUSE CONVERSION S-W2C | 860731   | 152,845                         | 34,727      |              | 187,572 | -04          |
| 855739  | RENOVATIONS TO BLDG #3 D   | 870117   | 193,000                         | 4,132       |              | 197,192 | -03          |
| 855746  | ROOF RPL BLDG #12 D        | 851211   | 79,802                          | 11,333      |              | 90,802  | -01          |
| 855749  | EXEC WING RENOV M          | 860110   | 23,884                          | 4,287       |              | 29,171  | -02          |
| 855791  | CONNECTIONS B- 2, 3, & 5 M | 851236   | 17,403                          |             |              | 17,403  | -01          |
| 855794  | RPR RR TPACCS Y            | 660313   | 263,339                         |             |              | 263,389 | -01          |
| 855805  | REPAIR RAILROAD A          | 871226   | 355,413                         | 111,533     |              | 467,343 | -05          |
| 855906  | RPRS TO TOILET FACI-TTIEST | 260732   | 199,111                         | 5,353       |              | 204,171 | -04          |
| 855908  | CONSTRJCT OFFICE T         | 851230   | 15,781                          |             |              | 16,781  | -01          |
| 855910  | ALTS ENTRANCEWAY B-409 T   | 660428   | 26,000                          |             |              | 26,000  | -02          |
| 855920  | LIGHT RPRS B-105/211/212 S | 851227   | 109,335                         |             |              | 109,335 | -01          |
| 855920  | INSTAL - PEH CONCRETE S    | 600113   | 56,982                          | 5,285       |              | 63,269  | -02          |
| 855920  | RAILROAD TRACK MAINT B     | 851127   | 85,383                          | 12,235      |              | 97,315  | -01          |
| 855929  | CONST NEW TOILET 9-407 L   | 870918   | 73,283                          |             |              | 70,283  | -03          |
| 855930  | RPR STREET CROSSINGS Y     | 861314   | 262,773                         | 3,911       |              | 266,584 | -03          |
| 855933  | EMERGENCY GENERATOR P      | 605115   | 29,777                          |             |              | 29,777  | -01          |
| 855936  | RPL ROOF B-511R ANJ 311C S | 851239   | 74,573                          | 73,755      |              | 148,328 | -01          |
| 855937  | ROOF RPRS B-509/630 A      | 861113   | 97,953                          | 5,141-      |              | 92,809  | -03          |
| 855939  | FIRE DEPT CONNECTIONS A    | 860228   | 97,603                          | 3,529-      |              | 94,071  | -02          |
| 855943  | Y955A EREWASH AND SHOWER H | 860731   | 42,424                          | 1,938       |              | 44,362  | -02          |
| 855944  | RPRS TO FAULT DAMAGED EQUB | 851218   | 13,565                          | 331         |              | 10,996  | -01          |
| 855944  | DOCK LEVELER & RAMP P-12 R | 860221   | 11,987                          |             |              | 11,987  | -01          |
| 855951  | REPR RPPES ATRS X,Y & Z H  | 860717   | 65,302                          |             |              | 65,302  | -01          |
| 855952  | DEMO FLOODLIGHT TMS H      | 860139   | 12,983                          |             |              | 12,983  | -02          |
| 855954  | CONST RESTROOM FACI-TTIEST | 860431   | 119,557                         |             |              | 119,557 | -02          |
| 855958  | INSTAL - FIRE ALARM C      | 601315   | 16,363                          |             |              | 14,363  | -01          |
| 855960  | CONSTRJCT SALT STORAGE N   | 660537   | 109,503                         | 1,268       |              | 110,768 | -04          |
| 855965  | CONSTRJCT RAMP M           | 870318   | 22,753                          |             |              | 22,753  | -01          |
| 855966  | REP - P-ATFDRM RAMP H      | 601239   | 34,953                          | 273         |              | 35,223  | -03          |
| 855967  | RELOCATE TRANSPORTER I     | 870112   | 19,853                          |             |              | 19,853  | -01          |
| 855971  | GRAVE TEST PAD K           | 871116   | 79,453                          |             |              | 79,453  | -01          |
| 855972  | PAVE PARKING LOT R         | 660335   | 32,347                          |             |              | 32,347  | -01          |

PNDMDJF.STAFF1.CNTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/85

38

PRCDDOC: 88JUN3U

DCL-AR RANGE OF AWARD (\$000) K

| PRCDDOC | DESCRIPTION                  | 300    | AWARD AMOUNT | MOD AMT CURPRI-AWARD | CURPRI  | LAST MOD V |
|---------|------------------------------|--------|--------------|----------------------|---------|------------|
| 854704  | REPR AIRFLD CONCR SJRFFC G   | 651115 | 319,920      | 23,552               | 343,502 | -03        |
| 854712  | CNSTR P2E-FAS MTL STG 3-GR   | 851218 | 113,000      | 292-                 | 112,708 | -02        |
| 854717  | CUN INFR/LASER LAU S         | 651201 | 238,000      | 47,475-              | 190,525 | -05        |
| 854721  | REPAIR EXTERIOR WALL S       | 671209 | 212,473      |                      | 212,473 | -01        |
| 854725  | REPAIR SAWTOOTH ROOF54-2G    | 661219 | 522,000      |                      | 522,000 | -02        |
| 854728  | REPAIR PROJECT WRO-33 F      | 660324 | 214,310      |                      | 214,310 | -01        |
| 854730  | FENCING AND STANDS C         | 351320 | 14,445       |                      | 14,445  | -01        |
| 854735  | RPR PLATFORM SHED, BLD 1 R   | 670310 | 67,000       | 1,540-               | 65,460  | -05        |
| 854736  | REPAIR PAVING ZONE 32        | 651125 | 265,123      |                      | 266,123 | -01        |
| 854739  | REPLACE SUBSTAT 4, 5 P       | 661211 | 172,777      | 7,006                | 179,783 | -01        |
| 854747  | REPLACE ROOF BLDG 1 A        | 660320 | 127,753      | 5,000                | 133,753 | -01        |
| 854746  | REPLAC WIND WALL B-DG 25 A   | 660314 | 135,000      | 987                  | 135,987 | -01        |
| 854750  | CONSTRUCTION AWARD           | 660310 | 95,049       |                      | 95,049  | -01        |
| 854750  | INSTL LEADER VALVE K         | 660121 | 28,205       | 780                  | 28,986  | -01        |
| 854757  | CENTRIFFUGE RENOVATIONS N    | 671201 | 85,345       | 7,941                | 94,286  | -05        |
| 854768  | TACAMO OFFICES, BLDG 1 R     | 561212 | 165,111      |                      | 165,111 | -02        |
| 854770  | ALTERATIONS TO BLDG #3       | 861212 | 189,319      | 6,338                | 193,707 | -04        |
| 854772  | MASONRY CONSTRUCTION K       | 860309 | 247,245      | 450-                 | 247,485 | -04        |
| 854776  | REPAIRS TO RUNWAYS A         | 871214 | 538,500      |                      | 538,500 | -01        |
| 855103  | RPR IRON FILTERS B-DG 352C   | 660317 | 89,863       | 5,485                | 95,349  | -01        |
| 855104  | ROOF RFRS BLDG #355 P        | 861228 | 26,937       | 15,400               | 40,297  | -03        |
| 855107  | INSTL OF WALK-IN COOLR S     | 580129 | 68,097       | 19,570               | 107,767 | -03        |
| 855109  | RPR STORM SEWER SYSTEM R     | 660310 | 160,000      | 3,239                | 163,289 | -02        |
| 855110  | PAINT AIRFIELD MARKINGS L    | 660314 | 41,025       | 37,282               | 37,282  | -02        |
| 855120  | INSTL OF FUEL OIL BURNERSP   | 661110 | 107,860      | 3,744-               | 107,860 | -02        |
| 855124  | FIRE MAT REPAIRS             | 860131 | 23,500       | 1,560                | 25,140  | -04        |
| 855125  | TEST RUNWAY COMPLETE RPR D   | 660124 | 19,200       | 17,919               | 37,119  | -02        |
| 855133  | INSTL EXT FIRE ALARM SYS C   | 660523 | 10,270       |                      | 10,270  | -02        |
| 855134  | SECONDARY CONTAINMENT V      | 651216 | 11,352       | 1,050                | 12,402  | -04        |
| 855138  | MASONRY RFRS TO BLDG #50     | 960328 | 35,985       | 5,207-               | 29,778  | -04        |
| 855141  | MASONRY RFRS TO BLDG 150 B   | 860306 | 42,000       | 2,212                | 44,212  | -03        |
| 855147  | CONSTRUCT EQUIPMENT MOUNTS   | 661222 | 53,889       | 2,241                | 56,130  | -02        |
| 855146  | CONSTRUCT RUNWAY MARKERS     | 660318 | 43,989       | 5,307                | 49,296  | -01        |
| 855152  | REM EXISTING ENTRY DOOR V    | 650305 | 12,995       | 1,400                | 14,395  | -02        |
| 855153  | MISC VENTILATION PROJECTSR   | 820200 | 92,200       |                      | 92,200  | -01        |
| 855154  | MISC VENT SYS BLDG 148 C     | 870323 | 23,488       |                      | 23,488  | -01        |
| 855157  | RPR OF LEAN-TO-ROOF          | 660315 | 47,700       |                      | 47,700  | -01        |
| 855160  | PIVOTURST EMERGENCY CONNS. R | 660304 | 52,980       |                      | 52,980  | -02        |
| 855161  | RFRS TO 8-SIDED PORCHES T    | 851210 | 20,035       | 2,500                | 23,135  | -01        |
| 855164  | MASONRY RFRS TO BLDG #39     | 660317 | 17,500       |                      | 17,500  | -01        |
| 855167  | UTIL. TO RELIGIOUS CENTERP   | 870225 | 71,665       | 1,145                | 72,810  | -03        |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE JDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/83

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: 88JUN80

| PROCDOC | DESCRIPTION                | 303 | AWARD AMOUNT | CURPRI-AMWD | MOD AMT | CURPRI  | LAST MOD |
|---------|----------------------------|-----|--------------|-------------|---------|---------|----------|
| 853244  | RPRS TO BLDG C-9 HASE      | A   | 34,883       |             |         | 34,883  | -05      |
| 853251  | DEMOLITION BLDG. S-147     | L   | 14,999       |             |         | 14,999  | -01      |
| 853252  | IMP TO MAIN ELEC SJSTY     | P   | 545,000      | 32,143      |         | 577,143 | -03      |
| 853253  | J GROUP PAVING             | M   | 294,000      | 319         |         | 294,319 | -01      |
| 853254  | BRIDGE REHABILITATION      | T   | 569,943      | 141,438     |         | 711,381 | -01      |
| 853256  | M GROUP SECURITY FEVING    | C   | 151,151      |             |         | 151,151 | -05      |
| 853261  | CHAPEL EXPANSION           | P   | 157,650      | 12,393      |         | 170,043 | -05      |
| 853260  | IMP. TO WATERFRONT         | P   | 157,800      | 17,355      |         | 175,155 | -03      |
| 853270  | REPAIR QUARTERS "E"        | F   | 13,358       | 2,494       |         | 15,852  | -01      |
| 853290  | NORMANBY ROAD PAVING       | H   | 271,825      | 5,230       |         | 277,055 | -05      |
| 853293  | REVOC TO BLDG C-3          | F   | 69,365       | 2,573       |         | 71,938  | -04      |
| 853293  | RODF & MISC OFFICE RPRS    | M   | 382,721      | 33,000      |         | 415,721 | -02      |
| 853293  | 622A MDD A/C SYST          | P   | 56,445       |             |         | 56,445  | -02      |
| 853293  | INCREASE ELEC CAPACITY     | L   | 95,400       | 3,300       |         | 98,700  | -02      |
| 853293  | COMPRESSED AIR PIPING      | P   | 313,745      | 5,550       |         | 319,295 | -02      |
| 853293  | 633 RPR A-124              | S   | 121,000      | 39,500      |         | 160,500 | -01      |
| 853293  | B-13 OIL STORAGE FEVE      | S   | 15,733       |             |         | 15,733  | -04      |
| 853293  | SECURITY FEVE TAMC FARM    | M   | 34,825       | 8,392       |         | 43,217  | -05      |
| 853293  | UPGRADE METERING EQUIP     | S   | 63,655       | 6,233       |         | 69,888  | -01      |
| 853293  | CONCRETE PLATFORM          | P   | 29,411       | 2,300       |         | 31,711  | -04      |
| 853293  | ALTS TO SEC GROUP          | C   | 22,500       | 2,930       |         | 25,430  | -02      |
| 853293  | METAL FRAME STORAGE        | G   | 79,000       |             |         | 79,000  | -02      |
| 853293  | BLDG 519 ROOF REPAIRS      | M   | 105,975      | 18,300      |         | 124,275 | -05      |
| 853293  | RPRS TO HAMMERHEAD CRAYE   | M   | 237,000      | 13,533      |         | 250,533 | -04      |
| 853293  | REM OF (2) FUEL OIL TANKS  | M   | 267,500      |             |         | 267,500 | -03      |
| 853293  | DISTRIBUTION UPGRADE       | M   | 722,000      | 32,370      |         | 754,370 | -06      |
| 853293  | SWITCHGEAR & TRANS REPL    | F   | 495,000      | 15,887      |         | 510,887 | -03      |
| 853293  | RPR OF 2.3 KV SYSTEMS      | A   | 584,000      | 9,845       |         | 593,845 | -03      |
| 853293  | RPR COMPRESSED AIR PIPING  | R   | 323,000      | 11,175      |         | 334,175 | -01      |
| 853293  | RPR RR TRACKS              | A   | 414,499      | 372,499     |         | 786,998 | -09      |
| 853293  | RP - 2.3 KV SWITCHGEAR     | F   | 640,000      | 15,921      |         | 655,921 | -03      |
| 853293  | RPRS TO COOLING SYSTEM     | F   | 94,665       | 1,355       |         | 96,020  | -01      |
| 853293  | HEATING SYSTEM REP.        | B   | 221,151      | 3,935       |         | 225,086 | -01      |
| 853293  | ELECT MODERNIZATION B-5420 | B   | 53,864       |             |         | 53,864  | -04      |
| 853293  | ELECT MODERNIZATION S-120P | G   | 42,212       |             |         | 42,212  | -03      |
| 853293  | RP - OF CONDENSATE SYSTEM  | G   | 44,435       | 2,300       |         | 46,735  | -04      |
| 853293  | BLDG. FLOW COMPUTER ROOM   | K   | 343,000      | 4,170       |         | 347,170 | -03      |
| 853293  | DEM & REM OF WALLS         | H   | 644,989      | 65,912      |         | 710,901 | -07      |
| 853293  | DEHUMIDIFICATION SYSTEM    | K   | 55,075       | 17,808      |         | 72,883  | -03      |
| 853293  | HAVALICAPS RAMP            | S   | 65,000       | 5,590       |         | 70,590  | -03      |
| 853293  | INSTL OF STEEL GRATINGS    | M   | 116,888      | 4,000       |         | 120,888 | -03      |









CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| PRJCD001 | 35 | RUN DATE: | 07/05/88 | DOLLAR RANGE OF AWARD (\$000) K | AWARD AMOUNT | BOJ    | MOD AMT CURPRI-AWARD | CURPRI  | LAST MOD VPR |
|----------|----|-----------|----------|---------------------------------|--------------|--------|----------------------|---------|--------------|
| 852809   |    |           |          |                                 | 11,920       | 870427 |                      | 11,920  | -02          |
| 852811   |    |           |          |                                 | 33,720       | 860121 |                      | 42,570  |              |
| 852812   |    |           |          |                                 | 106,500      | 860210 | 3,550                | 106,500 |              |
| 852902   |    |           |          |                                 | 13,975       | 951215 |                      | 13,975  |              |
| 852906   |    |           |          |                                 | 23,975       | 851032 |                      | 23,975  |              |
| 852920   |    |           |          |                                 | 24,940       | 860030 |                      | 24,940  | -01          |
| 852925   |    |           |          |                                 | 27,520       | 860304 |                      | 27,520  |              |
| 853003   |    |           |          |                                 | 23,911       | 850329 |                      | 24,711  | -01          |
| 853009   |    |           |          |                                 | 47,320       | 851115 |                      | 47,320  |              |
| 853011   |    |           |          |                                 | 435          | 650123 |                      | 25,235  | -01          |
| 853018   |    |           |          |                                 | 15,699       | 851122 |                      | 17,049  | -01          |
| 853213   |    |           |          |                                 | 52,500       | 860316 | 479                  | 52,979  | -01          |
| 853216   |    |           |          |                                 | 14,200       | 870921 |                      | 14,200  |              |
| 853289   |    |           |          |                                 | 13,469       | 860131 | 590                  | 19,159  | -02          |
| 853290   |    |           |          |                                 | 32,033       | 870316 | 1,651                | 33,744  | -03          |
| 853301   |    |           |          |                                 | 355,500      | 830208 | 20,418               | 377,218 | -04          |
| 853306   |    |           |          |                                 | 133,000      | 870414 | 3,407                | 141,607 | -03          |
| 853308   |    |           |          |                                 | 84,730       | 871130 |                      | 84,730  | -02          |
| 853311   |    |           |          |                                 | 46,000       | 860201 |                      | 46,000  |              |
| 853315   |    |           |          |                                 | 44,369       | 860715 |                      | 57,424  | -03          |
| 853318   |    |           |          |                                 | 458,394      | 861110 | 13,355               | 461,147 | -01          |
| 853320   |    |           |          |                                 | 15,213       | 851110 | 2,253                | 18,387  | -01          |
| 853325   |    |           |          |                                 | 10,395       | 850428 | 2,159                | 10,395  |              |
| 853328   |    |           |          |                                 | 13,677       | 851123 |                      | 13,677  |              |
| 853331   |    |           |          |                                 | 64,021       | 860030 |                      | 64,021  | -02          |
| 853332   |    |           |          |                                 | 645,225      | 830504 | 22,543               | 667,868 | -02          |
| 853333   |    |           |          |                                 | 134,693      | 860331 | 1,221                | 135,784 | -02          |
| 853335   |    |           |          |                                 | 15,980       | 850320 |                      | 16,280  | -01          |
| 853336   |    |           |          |                                 | 19,260       | 860504 |                      | 20,173  | -03          |
| 853354   |    |           |          |                                 | 85,000       | 860208 |                      | 102,710 | -02          |
| 853355   |    |           |          |                                 | 130,335      | 871132 |                      | 156,932 | -08          |
| 853361   |    |           |          |                                 | 53,500       | 851126 |                      | 58,500  |              |
| 853566   |    |           |          |                                 | 21,947       | 851212 |                      | 24,747  | -02          |
| 853566   |    |           |          |                                 | 334,983      | 860501 | 2,300                | 336,988 |              |
| 853571   |    |           |          |                                 | 12,933       | 851131 |                      | 12,933  |              |
| 853572   |    |           |          |                                 | 117,732      | 861109 | 35,375               | 153,107 | -03          |
| 853579   |    |           |          |                                 | 246,500      | 870504 | 35,312               | 209,189 | -01          |
| 853380   |    |           |          |                                 | 52,359       | 870302 |                      | 52,359  | -03          |
| 853381   |    |           |          |                                 | 157,439      | 870030 | 2,908                | 160,147 | -03          |
| 853382   |    |           |          |                                 | 185,422      | 850422 | 32,440               | 217,794 | -02          |
| 853383   |    |           |          |                                 | 65,800       | 870508 | 2,800                | 69,600  | -03          |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| PRCDOC | 54 | RUN DATE: | 07/05/83 | DOL-AR RANGE OF AWARD (\$000) K | 300                       | AWARD AMOUNT | CURPRI-4AARD | MOD AMT | CURPRI    | LAST MOD NBR |
|--------|----|-----------|----------|---------------------------------|---------------------------|--------------|--------------|---------|-----------|--------------|
|        |    |           |          |                                 | DESCRIPTION               |              |              |         |           |              |
| 851907 |    |           |          |                                 | BLDG 22 COMP ROOM         | S            | 650323       |         | 149,665   | 1,835-       |
| 851923 |    |           |          |                                 | REPL STEAM FEEDING 314    | M            | 650931       |         | 64,343    | 41,175       |
| 851934 |    |           |          |                                 | LCK STORAGE BLDG. 174     |              | 670750       |         | 24,495    |              |
| 851941 |    |           |          |                                 | RP3/RP FIRE ALARM SYSTEM  |              | 600215       |         | 12,866    |              |
| 851943 |    |           |          |                                 | ALTS TO EM CLUB PORTS     | J            | 670310       |         | 77,254    |              |
| 851944 |    |           |          |                                 | PICNIC AVIATION           | J            | 650733       |         | 39,995    |              |
| 851947 |    |           |          |                                 | B. M-1 COMPUTER ROOM      | J            | 650413       |         | 154,553   |              |
| 851951 |    |           |          |                                 | REPLACE OVERHEAD DOORS    | P            | 870235       |         | 33,153    |              |
| 851952 |    |           |          |                                 | DD2 INSTALL TEST POWER    | J            | 800733       |         | 62,747    |              |
| 851954 |    |           |          |                                 | B. 301 RAG BALL CRT VENT  |              | 650539       |         | 14,323    |              |
| 851957 |    |           |          |                                 | RP. HOT H2O STEAM LINES   | N            | 871125       |         | 783,474   |              |
| 851960 |    |           |          |                                 | TRAFFIC DIRECT SIGN       |              | 650329       |         | 21,503    |              |
| 851961 |    |           |          |                                 | SLATE ROOF REPAIRS        | P            | 851122       |         | 17,985    |              |
| 851963 |    |           |          |                                 | POWER PLANT REPAIRS       | B.72         | 890431       |         | 779,633   |              |
| 851969 |    |           |          |                                 | HYDRANT REPLACEMENT       | B            | 661137       |         | 65,303    |              |
| 851971 |    |           |          |                                 | RP. COND TANK/PUMP/PIPING |              | 870318       |         | 94,772    |              |
| 851972 |    |           |          |                                 | RENOV OF BLDG #130        | S            | 606939       |         | 73,443    |              |
| 852096 |    |           |          |                                 | RPRS. TO AIR CONDITIONING |              | 650531       |         | 11,733    |              |
| 852108 |    |           |          |                                 | BLDG. 178 BIRD CONTROL    | D            | 851212       |         | 22,325    |              |
| 852196 |    |           |          |                                 | PRD. RPRS TO HI-RANGER    |              | 661310       |         | 19,729    |              |
| 852206 |    |           |          |                                 | B. M-1 VINYL FLOORING     | G            | 660214       |         | 17,953    |              |
| 852506 |    |           |          |                                 | INSTAL BACKFLOW DEVICES   | P            | 661121       |         | 175,165   |              |
| 852515 |    |           |          |                                 | INSTL OF MALCOMIS NETWORK |              | 660513       |         | 1,116,217 |              |
| 852520 |    |           |          |                                 | MARQUE REP & EXT PNT      |              | 660921       |         | 23,503    |              |
| 852523 |    |           |          |                                 | 35KV SWITCHING STATY      | M            | 860537       |         | 221,757   |              |
| 852524 |    |           |          |                                 | CLEAN & INSP SEWER LINE   | A            | 651230       |         | 85,255    |              |
| 852530 |    |           |          |                                 | DEM'D OF WEATHER TOWER    | W            | 860930       |         | 27,303    |              |
| 852532 |    |           |          |                                 | GLASS REPL AUM GUARD      | C            | 851221       |         | 13,603    |              |
| 852546 |    |           |          |                                 | REP TO HGR 3              | P            | 860925       |         | 431,642   |              |
| 852550 |    |           |          |                                 | SECURITY FEWC HGR 2       | A            | 860128       |         | 39,994    |              |
| 852557 |    |           |          |                                 | RFX TO RECREATION FAC.    | P            | 371212       |         | 281,465   |              |
| 852565 |    |           |          |                                 | RE-LIGHT BLDG 250         | E            | 660113       |         | 19,383    |              |
| 852567 |    |           |          |                                 | RPL SM PT RCE STATIV      | L            | 870739       |         | 47,303    |              |
| 852568 |    |           |          |                                 | REP ROOF BLDG 533         | P            | 851227       |         | 66,803    |              |
| 852569 |    |           |          |                                 | HANGAR 2 SVD GUARDS       |              | 661217       |         | 22,375    |              |
| 852570 |    |           |          |                                 | STEAM PIT REPAIRS         | H            | 861310       |         | 92,003    |              |
| 852577 |    |           |          |                                 | AVIATION SECURITY FNC     | G            | 660110       |         | 29,263    |              |
| 852580 |    |           |          |                                 | STATION SIGNAGE           | S            | 860516       |         | 19,632    |              |
| 852581 |    |           |          |                                 | PAINT HANGAR 3            | P            | 650531       |         | 23,977    |              |
| 852582 |    |           |          |                                 | PAVE STRIPPING            | M            | 850715       |         | 29,289    |              |
| 852607 |    |           |          |                                 | RPR PAVEMENT              | R            | 660535       |         | 51,903    |              |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 3DD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 37/05/98

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: 83JUN30

| PROCDOC | DESCRIPTION                 | BOC    | AWARD AMOUNT | MOD AMT CUPPRI-AMARD | CURPRI  | LAST MOD Nbr |
|---------|-----------------------------|--------|--------------|----------------------|---------|--------------|
| 851704  | FLOOR REPL. BLDG. 121       | 870311 | 55,250       | 27,759               | 86,019  | -34          |
| 851705  | INTERIOR DOORS-BLDG 292     | 371013 | 21,000       | 5,095                | 26,095  | -01          |
| 851706  | ROOF REPLACEMENT, 3442      | 650510 | 53,000       |                      | 53,000  | -01          |
| 851706  | ROOF REPLACEMENT, 3534      | 560515 | 24,000       |                      | 24,000  |              |
| 851709  | ROOF REPLACEMENT, 3500      | 851231 | 39,780       |                      | 49,481  | -01          |
| 851710  | SKYLIT & ROOF REPL 3307     | 880211 | 117,400      | 10,328               | 128,228 | -03          |
| 851711  | PAVEMENT APRS 1985          | 660516 | 491,545      |                      | 490,769 | -02          |
| 851723  | SPRUANCE/MAHAN PASSAGEWAY   | 660718 | 69,807       | 1,315                | 71,122  | -02          |
| 851724  | ROOF REPL BLDG 596          | 860513 | 92,597       | 2,714                | 95,311  | -01          |
| 851725  | PIPING SYSTEMS INSULATION   | 650509 | 69,712       | 25,098               | 93,800  | -02          |
| 851726  | RPRS & ALTS TO BLDG 29      | 870432 | 95,400       | 10,529               | 105,659 | -05          |
| 851735  | RPR & ALTER PRINGLE MALL    | 880136 | 431,519      | 31,352               | 463,371 | -07          |
| 851736  | RPR STORMSANITARY DRAINAGE  | 851009 | 21,895       |                      | 21,895  |              |
| 851739  | ROAD REPAIRS                | 660512 | 79,155       | 443                  | 79,598  | -03          |
| 851741  | EXT VESTIBULE BLDG. 1173    | 870129 | 17,464       |                      | 17,464  | -01          |
| 851742  | DEMOLISH BLDG MC-10, 112 R  | 851203 | 25,062       |                      | 25,062  |              |
| 851751  | FLOW LOOP FACILITY 3-1246P  | 860314 | 155,795      | 20,787               | 176,582 | -03          |
| 851752  | REPAIR HVAC SYST            | 861203 | 227,000      | 30,101               | 257,101 | -03          |
| 851754  | FIRE PROTECTION SYSTEM      | 870115 | 47,900       |                      | 47,900  |              |
| 851756  | FIRE ALARM SYSTEM 3-DG127R  | 860507 | 13,900       | 2,144                | 15,944  | -01          |
| 851758  | NEW ROOFING BLDG. 000       | 870522 | 63,375       | 1,725                | 65,100  | -02          |
| 851759  | RECALL ELEVATORS B-06, 990  | 870534 | 16,557       |                      | 14,567  | -02          |
| 851760  | SLIDING WINDOWS B-1021      | 660521 | 74,459       |                      | 74,469  |              |
| 851783  | FENCE RPRS                  | 661016 | 83,220       | 4,540                | 87,760  | -02          |
| 851785  | TRASH ENCLDURES             | 651029 | 15,740       |                      | 15,740  |              |
| 851799  | STORAGE-STAGING BLDG 115    | 661103 | 120,690      | 27,437               | 148,127 | -05          |
| 851800  | STORM WINDOWS-DRS 3-302     | 851200 | 35,385       | 1,088                | 37,473  | -01          |
| 851809  | NEW PARKING LOT B 1021      | 851112 | 70,540       | 2,105                | 68,532  | -01          |
| 851810  | EQUIPMENT INSTL BLDG. 1246M | 870710 | 487,368      | 53,152               | 540,520 | -05          |
| 851811  | PEDESTRIAN BRIDGE 3-111     | 660520 | 23,974       |                      | 23,974  |              |
| 851813  | PLASMA SPRAY FACILITY       | 861104 | 110,853      | 2,992                | 113,845 | -04          |
| 851816  | WIRE WINDING TEST FAC 114C  | 660526 | 93,310       | 12,391               | 105,701 | -04          |
| 851817  | CONSTRUCT PARKING LOT       | 850913 | 77,700       |                      | 77,700  |              |
| 851819  | LANDSCAPING, PARKING LOT    | 860522 | 54,992       |                      | 54,992  |              |
| 851826  | PARKING AREA                | 851123 | 20,345       |                      | 20,345  |              |
| 851829  | INT. DET. SYST. B-0, 319    | 870306 | 29,985       | 1,307                | 30,792  | -01          |
| 851830  | DEMO 5 TRNS AND 4 GARAGES   | 860204 | 49,000       | 4,158                | 53,158  | -01          |
| 851831  | DEMO 3 404, C.P             | 860919 | 53,674       | 7,281                | 60,955  | -03          |
| 851901  | 9.154 INST BEST COMP SYS J  | 660328 | 73,700       | 1,373                | 80,373  | -02          |
| 851902  | PERA (SS) OFFICE B-05, 79   | 871216 | 141,400      |                      | 141,400 |              |
| 851905  | RPR TO ROOF                 | 861207 | 125,467      |                      | 125,467 |              |

PVDMDF, STAFF1, CVTL





CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| PROCDOC | RUN DATE: | 07/05/60 | DOLLAR RANGE OF AWARD (\$300) K | BOJ    | AWARD AMOUNT | CURPRI-AWARD | CURPRI    | LAST MOD NB |
|---------|-----------|----------|---------------------------------|--------|--------------|--------------|-----------|-------------|
| 853449  |           |          |                                 | 870324 | 165,699      |              | 165,699   | -32         |
| 853455  |           |          |                                 | 870930 | 313,957      | 10,567       | 329,526   | -34         |
| 853457  |           |          |                                 | 870113 | 198,803      |              | 198,803   | -31         |
| 853461  |           |          |                                 | 870430 | 53,463       |              | 53,463    | -32         |
| 853520  |           |          |                                 | 851313 | 67,463       |              | 67,463    | -31         |
| 853540  |           |          |                                 | 861127 | 195,161      | 1,791        | 197,952   | -33         |
| 851455  |           |          |                                 | 871213 | 1,652,993    |              | 1,671,431 | -31         |
| 851471  |           |          |                                 | 880228 | 3,193,703    | 21,433       | 5,484,802 | -32         |
| 851472  |           |          |                                 | 850923 | 59,151       | 2,295,122    | 95,517    | -35         |
| 851473  |           |          |                                 | 890331 | 7,378,003    | 37,355       | 9,928,355 | -38         |
| 851500  |           |          |                                 | 850239 | 13,203       | 2,553,355    | 13,203    | -32         |
| 851605  |           |          |                                 | 851127 | 33,875       | 510          | 34,385    | -32         |
| 851607  |           |          |                                 | 851131 | 217,003      |              | 217,003   | -31         |
| 851614  |           |          |                                 | 851131 | 18,503       | 17,500       | 1,003     | -31         |
| 851619  |           |          |                                 | 860421 | 88,333       | 1,283        | 89,613    | -31         |
| 851627  |           |          |                                 | 851119 | 115,003      |              | 115,003   | -32         |
| 851633  |           |          |                                 | 870937 | 31,303       | 1,198        | 31,705    | -32         |
| 851635  |           |          |                                 | 870815 | 295,003      | 75,329       | 370,329   | -35         |
| 851636  |           |          |                                 | 860732 | 113,115      | 3,542        | 121,763   | -34         |
| 851637  |           |          |                                 | 871124 | 95,503       | 2,335        | 99,385    | -31         |
| 851638  |           |          |                                 | 860938 | 133,903      |              | 133,903   | -32         |
| 851643  |           |          |                                 | 860531 | 34,803       |              | 34,803    | -32         |
| 851640  |           |          |                                 | 851321 | 22,445       |              | 22,445    | -31         |
| 851647  |           |          |                                 | 860335 | 67,143       | 1,227        | 65,913    | -31         |
| 851648  |           |          |                                 | 860327 | 28,763       | 1,927        | 30,587    | -32         |
| 851651  |           |          |                                 | 860322 | 79,203       | 10,750       | 89,953    | -31         |
| 851659  |           |          |                                 | 860123 | 12,612       | 741          | 13,353    | -32         |
| 851660  |           |          |                                 | 860214 | 27,233       | 303          | 27,533    | -32         |
| 851667  |           |          |                                 | 851134 | 29,903       | 5,348        | 35,948    | -31         |
| 851668  |           |          |                                 | 850534 | 17,348       | 3,398        | 20,445    | -31         |
| 851675  |           |          |                                 | 860734 | 115,003      |              | 115,003   | -31         |
| 851693  |           |          |                                 | 860912 | 203,282      | 1,137        | 199,175   | -32         |
| 851694  |           |          |                                 | 860226 | 22,753       |              | 22,753    | -31         |
| 851596  |           |          |                                 | 860115 | 20,325       |              | 20,325    | -31         |
| 851597  |           |          |                                 | 851230 | 13,573       |              | 13,573    | -31         |
| 851599  |           |          |                                 | 871218 | 55,092       | 300          | 55,392    | -31         |
| 851701  |           |          |                                 | 860318 | 25,723       |              | 25,723    | -31         |
| 851702  |           |          |                                 | 860131 | 42,633       |              | 42,633    | -31         |
| 851703  |           |          |                                 | 860225 | 20,363       | 1,565        | 21,925    | -31         |



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CHS EXTRACT FILE

31 RUN DATE: 07/05/88

83JUN30

DOLLAR RANGE OF AWARD (\$300) K

| PRC000: | DESCRIPTION                 | BOJ | AWARD AMOUNT | MOD AMT CUIPRI-AWARD | CJ3PRI    | LAST MOD V6- |
|---------|-----------------------------|-----|--------------|----------------------|-----------|--------------|
| 847594  | MAS WINDMILL - RPR          | D   | 97,443       |                      | 99,443    | -02          |
| 847595  | RP - F/A SYS J-135 3 133    | F   | 53,721       | 2,134                | 60,355    | -01          |
| 847596  | SLIPED ROOF RPRS            | C   | 142,842      | 549                  | 143,691   | -03          |
| 847599  | L/L REVOL. TO BLDG 2703     | T   | 203,989      | 12,255               | 216,254   | -01          |
| 853007  | SAFETY MODIFICATIONS        | G   | 119,000      | 500                  | 119,800   | -05          |
| 853009  | VARIA. ATTITUDE TEST STANR  | J   | 303,000      | 52,448               | 860,468   | -01          |
| 853037  | REPRS TO COLLARD SYSTEM     | J   | 166,000      | 5,213                | 172,213   | -01          |
| 853059  | RPRS/RENOVATIONS-BLDG 109A  | A   | 264,000      |                      | 264,000   | -02          |
| 853070  | GENERAL REPAIRS-BD 3        | A   | 1,456,597    | 15,287               | 1,470,384 | -02          |
| 853079  | BOAT MODEL VAULTILUS FLEETS | A   | 191,677      |                      | 191,677   | -02          |
| 853099  | OPERATIONAL CONTROL CTR     | R   | 7,023,195    | 708,245              | 7,731,460 | -58          |
| 853107  | REPAIR ASITIC-GEAR, 3L 520M | R   | 92,969       | 1,550                | 94,619    | -02          |
| 853113  | CONCRETE FILLED PY-DNS P    | P   | 24,100       |                      | 24,100    | -01          |
| 853132  | OVERHAUL/REPAIR ELEVATORS   | G   | 1,698,058    | 55,431               | 1,953,489 | -04          |
| 853140  | SANITARY SEWER              | A   | 91,000       |                      | 91,000    | -02          |
| 853149  | DEM'D STORAGE OIL TANKS     | M   | 479,107      | 2,282                | 481,349   | -05          |
| 853152  | ALCM ISLOOS, -PHS-5         | M   | 975,367      | 9,755                | 965,612   | -03          |
| 853155  | MODE TO EML - DINING        | F   | 87,800       |                      | 87,800    | -03          |
| 853156  | OPERATIONAL TRNR FAC        | B   | 2,182,485    | 32,355               | 2,215,352 | -11          |
| 853160  | MAIN GATE IMPROVEMENT FAAP  | D   | 275,255      |                      | 275,255   | -03          |
| 853181  | RPR STATION ROADS           | O   | 149,847      | 5,361                | 150,531   | -04          |
| 853182  | PAVE HD45Y SHOP             | H   | 65,504       | 594                  | 150,531   | -04          |
| 853190  | SMALL BOAT DOCKING FACIL.   | A   | 847,000      | 11,911               | 78,415    | -04          |
| 853192  | POWER/DATA/PHONE CABLES     | L   | 847,000      | 143,680              | 990,680   | -08          |
| 853300  | PIER LIGHTING               | M   | 34,145       |                      | 34,145    | -02          |
| 853303  | VARIOUS REPAIRS             | P   | 384,884      | 5,573                | 391,557   | -02          |
| 853304  |                             | A   | 772,000      | 21,328               | 793,828   | -05          |
| 853307  | WHOLE CENTER REPAIRS        | H   | 681,000      | 65,775               | 746,775   | -05          |
| 853313  | OUTDOOR PLAYING FIE-DS      | P   | 343,000      | 3,280                | 346,280   | -03          |
| 853317  | REPAIR ELECTRICAL SYSTEM S  | S   | 72,720       | 12,823               | 85,543    | -01          |
| 853324  | UPGRADE SPRINKLER SYSTEM A  | A   | 59,500       | 932                  | 58,668    | -01          |
| 853328  | RPR ROOF, 3-06 318          | M   | 535,000      | 43,421               | 485,579   | -04          |
| 853329  | ORGANIZ MNT SHOP            | P   | 464,587      | 7,800                | 472,387   | -03          |
| 853342  | WEATHERIZATION              | A   | 26,000       |                      | 26,000    | -01          |
| 853382  | RPR STEAM DISTRIB SYS       | S   | 209,000      | 11,932               | 220,932   | -03          |
| 853425  | ABT CONTROL 8434            | U   | 145,000      | 11,205               | 156,205   | -05          |
| 853429  | RPRS BY REPLACEMENT ROOF    | M   | 197,000      | 12,374               | 184,625   | -03          |
| 853430  | RSSPS SPECIAL PROJECT       | R   | 218,399      | 7,700                | 210,699   | -10          |
| 853436  | RPR ROOF BLDG 5             | O   | 727,841      | 15,238               | 743,379   | -02          |
| 853437  | RPR ROOF BLDG 2 SEC C & DA  | D   | 439,000      | 3,358                | 441,358   | -01          |
| 853447  |                             | U   | 23,501       |                      | 23,501    | -01          |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUA-  
 SOURCE: CMS EXTRACT FILE

| 30     | RUN DATE:                   | 07/05/88 | DOL-AR RANGE OF AWARD (\$300) K | LAST MOD VBR |
|--------|-----------------------------|----------|---------------------------------|--------------|
| JUN30  |                             |          |                                 |              |
| KCCDC: | DESCRIPTION                 | 903      | AWARD AMOUNT                    | CURPRI       |
| 347060 | REPAIR MAG WINGWALLS        | 860716   | 183,115                         | 184,255      |
| 347053 | REVISIONS TO BLDG 122       | 860334   | 669,003                         | 671,403      |
| 347059 | REVISION TO BLDG 2328       | 850916   | 269,003                         | 270,945      |
| 347070 | REPAIR BRIDGE NO. 2151      | 851122   | 56,963                          | 60,435       |
| 347071 | REPAIR BRIDGE NO. 2154      | 851124   | 34,703                          | 51,303       |
| 347072 | RENO LAB 2202               | 871324   | 39,783                          | 39,780       |
| 347249 | PASSENGER ELEVATOR 3/1300J  | 850622   | 154,263                         | 165,409      |
| 347250 | REFURBISH 14 RESTROOMS      | 950312   | 255,003                         | 264,643      |
| 347364 | PAINT/SIDING OFFICERS BTRJ  | 840918   | 42,974                          | 42,974       |
| 347378 | REPAIR ROOF ARCHES 3-413    | 870136   | 303,198                         | 409,063      |
| 347384 | PATIO OFFICERS CLUB         | 850539   | 53,933                          | 59,362       |
| 347396 | FUEL STORAGE TANKS          | 15,577   | 15,577                          | 15,577       |
| 347998 | EMERG REPRS TO RUNWAY       | 850731   | 17,051                          | 25,003       |
| 348050 | EXTERIOR DOOR REPL.         | 850214   | 21,957                          | 21,957       |
| 348051 | REPLACE WATER PIPING 221G   | 860530   | 58,695                          | 74,099       |
| 348052 | FIRE A-ARM                  | 860915   | 15,703                          | 15,482       |
| 348054 | COILING TOWER BLDG 34       | 841224   | 11,904                          | 12,121       |
| 348056 | REPLACE CULVERTS R-199      | 850225   | 13,805                          | 13,305       |
| 348061 | ADDITION H-143              | 850511   | 147,853                         | 147,853      |
| 348062 | ROOF AND TRUSS REPRS.       | 941231   | 89,325                          | 89,325       |
| 348070 | SECURITY IMPROVEMENTS       | 850319   | 85,003                          | 82,583       |
| 348077 | ADD B-142 DRAIN B-3339      | 860636   | 207,403                         | 208,545      |
| 348269 | MODULAR BLDG FOUNDATION     | 850525   | 38,671                          | 39,993       |
| 348281 | HEATING RECOVERY SYSTEM     | 951111   | 54,383                          | 55,345       |
| 348342 | REPAIR INLETS MAIND-E       | 871334   | 17,763                          | 17,763       |
| 348435 | DRDR TEST TOWER B-131       | 850320   | 27,536                          | 27,535       |
| 348438 | HWY RESURFACE               | 850430   | 612,924                         | 669,547      |
| 348439 | REPAIR EXT WALLS B-2524     | 860919   | 343,873                         | 362,165      |
| 348440 | REPLACE A/C 32521-2540      | 861126   | 377,153                         | 384,474      |
| 348441 | REPLACE AIR COMP 9199       | 851215   | 113,499                         | 135,559      |
| 348444 | RENOV. TEST CELLS/HALLWAY   | 850227   | 37,935                          | 39,142       |
| 348505 | BITUMN CONCRETE REPRS ROADP | 850925   | 58,553                          | 58,553       |
| 348520 | REPR/A-TER SECOND F.R B-78C | 950930   | 13,283                          | 15,283       |
| 348552 | ALTERATIONS TO BLDG         | 871220   | 647,995                         | 656,380      |
| 348587 | PAINTING AREA D             | 860919   | 223,003                         | 220,003      |
| 348588 | CONVERSION PLANT U-05 5P S  | 851137   | 74,551                          | 82,503       |
| 348593 | ROOF REPLACE VARIOUS B-DGA  | 850329   | 255,003                         | 258,171      |
| 348594 | POLE BARR BLDG. 2913        | 870239   | 79,953                          | 79,795       |
| 348599 | ADDM 3-2859                 | 850212   | 64,987                          | 64,989       |
| 348592 | MECH A-T VARIOUS B-DGS      | 860534   | 194,399                         | 195,822      |
| 348593 | ADD & REPLACEMENT OF BLDGS  | 870310   | 483,303                         | 490,479      |

PNDMDF-STAFF1.CNT



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CWS EXTRACT FILE

RUN DATE: 07/05/83

29

3JUN80

DOLLAR RANGE OF AWARD (\$000) K

| PRJCDUC | DESCRIPTION                 | BOB      | AWARD<br>AMOUNT | MOD AMT<br>CUPRI-AWARD | CURPRI    | LAST<br>MOD NBR |
|---------|-----------------------------|----------|-----------------|------------------------|-----------|-----------------|
| 345526  | LAVDFILL CLOSURE            | K 550530 | 484,790         | 53,712                 | 553,502   | -01             |
| 345528  | HSS MODIFICATIONS           | F 841308 | 99,444          | 2,500                  | 101,944   | -03             |
| 345576  | TEMP CONTROL MOD BLDG       | G 841120 | 39,700          |                        | 39,700    |                 |
| 345584  | SECURITY FENCE 3 11/12      | I 851101 | 44,000          | 525-                   | 43,475    | -01             |
| 345592  | PLUMBING WORK               | F 850401 | 15,970          |                        | 15,970    |                 |
| 345622  | FLJW CONTR-LLERS, 3.DG 12U  | B 850230 | 165,566         | 15,352                 | 163,515   | -04             |
| 345625  | BLDG. 516                   | B 850219 | 33,360          | 1,915                  | 40,775    | -01             |
| 345647  | ROOF REPLACEMENT            | B 850327 | 77,220          |                        | 77,220    |                 |
| 345650  | ROOF REPLACEMENT            | O 850930 | 127,100         | 10,474                 | 137,574   | -02             |
| 845651  | HOUSING REPAIR 300 UNITS C  | 851301   | 630,880         | 25,231                 | 655,961   | -03             |
| 345652  | GARAGE IMPROVEMENTS         | B 860718 | 2,655,935       | 73,413                 | 2,734,353 | -04             |
| 345653  | CAPCHAT HSS IMPROVEMENT S   | 850305   | 1,133,928       | 10,435-                | 1,123,393 | -02             |
| 345662  | DEM. B.DG. 500-MTC 5/LKS P  | 850201   | 85,460          | 51,191                 | 137,651   | -02             |
| 345665  | DEM. OF BLDG. 1116          | 850101   | 40,830          | 3,336                  | 44,166    | -01             |
| 845665  | DEMO TRANSEFORMER VAULTS S  | 841305   | 11,750          |                        | 11,750    |                 |
| 345673  | EXTERIOR REPAIR-RC          | N 850318 | 69,192          | 15,500                 | 89,792    | -02             |
| 845676  | ADD TO FIRE EXTINGUISHING   | 860723   | 59,604          | 15,000                 | 74,604    | -01             |
| 345597  | CORRIDOR BARRIER WALL       | 870218   | 11,400          |                        | 11,400    | -02             |
| 345678  | SAMPSON STREET BRIDGE       | D 850404 | 259,235         | 90,000                 | 339,235   | -01             |
| 345701  | MAINT GATE SITE IMPROVE     | M 850703 | 340,617         | 63,569                 | 406,285   | -04             |
| 345706  | ROOF REPAIR BLDGS 922       | N 851211 | 198,372         |                        | 198,372   |                 |
| 945707  | ROOF REPLACEMENT B923       | E 860226 | 192,999         |                        | 192,999   |                 |
| 345716  | WIND, DOORS, SIDING 3 R0JFG | 851301   | 199,700         | 17,774                 | 217,474   | -02             |
| 945739  | RPL ROOF NRC LACROSSE #1 U  | 850326   | 14,622          |                        | 14,622    |                 |
| 345743  | INSTAL. SHOWER ROOM         | A 841301 | 11,600          | 1,594                  | 13,194    | -01             |
| 945745  | INSTAL. DROP CEILING        | A 850319 | 113,340         |                        | 113,340   |                 |
| 345746  | REFINISH ANTENNA TOWERS     | A 850524 | 15,000          | 1,000                  | 17,000    | -02             |
| 345748  | RECONDITION FAN BEARINGS    | T 870430 | 21,500          | 5,391                  | 28,381    | -05             |
| 345757  | RPRS TO INDUCED AIR FAN     | M 840911 | 11,550          | 3,550-                 | 8,100     | -01             |
| 947J04  | REPLACE BOILER 9-115        | N 851209 | 61,700          | 795-                   | 60,905    | -01             |
| 347J06  | 3RD BAY 2ND & 3RD DECK 41A  | 250117   | 470,027         | 3,521                  | 479,549   | -09             |
| 347J07  | SECOND DECK MK36 B-41       | 850511   | 99,265          | 13,460                 | 112,725   | -01             |
| 347J16  | RPL AIR COMPRESSORS         | M 851202 | 44,300          |                        | 44,300    |                 |
| 347J20  | CULVERT REPAIR              | R 850303 | 169,290         | 55,767-                | 102,523   | -04             |
| 347J24  | ALT. OFFICE P-64            | N 850531 | 220,442         | 37,377                 | 257,819   | -06             |
| 347J26  | RENOVATE BLDINGS 2307       | T 870507 | 30,989          | 1,250                  | 32,239    | -01             |
| 347J30  | ADJ B-2940                  | S 850523 | 169,350         | 2,352-                 | 167,688   | -04             |
| 347J39  | ALTERATIONS TO HDS 2058 A   | 850522   | 85,772          |                        | 85,772    |                 |
| 347J37  | WASH. FAC. 3-126            | A 850311 | 140,070         | 7,450                  | 147,520   | -02             |
| 347J42  | ROOF REPLACE VAR. 3-DGS. A  | 850311   | 252,000         | 25,238                 | 277,238   | -02             |
| 947J44  | REPLACE BOUNDARY FENCE S    | 850323   | 64,427          | 1,355                  | 65,782    | -01             |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/88

DOLLAR RANGE OF AWARD (\$3000) K

68

JUN88

30000:

| ACCORD: | DESCRIPTION                 | ROD    | AWARD<br>AMOUNT | CURPRI-AWARD | MOD AMT | CURPRI    | LAST<br>MOD NBR |
|---------|-----------------------------|--------|-----------------|--------------|---------|-----------|-----------------|
| 45154   | PAVEMENT MARKING & STRIP-L  | 841228 | 24,350          |              | 154-    | 24,186    | -01             |
| 45157   | CAD/CAM SPACES BLDG 562 A   | 850312 | 65,700          |              | 2,180   | 68,880    | -02             |
| 45159   | ALTER 3-DG 38 OVRHEAD DOOR  | 850729 | 34,600          |              | 2,570   | 37,170    | -02             |
| 45161   | BLWDOOR PIT TC 13-2         | 851215 | 221,900         |              | 94,633  | 316,533   | -03             |
| 45175   | RPRT/AT TO FUEL FARM PIPG   | 861223 | 254,915         |              | 91,732  | 346,647   | -01             |
| 45177   | CONSTRUCT VAPC STORAGE 3 G  | 850304 | 79,000          |              | 1,450-  | 77,550    | -01             |
| 45178   | #2 FUEL OIL STORAGE FACILG  | 861101 | 89,000          |              | 1,274   | 90,274    | -02             |
| 45181   | INSTAL. WATER OPER. WELL H  | 850202 | 21,531          |              |         | 21,531    |                 |
| 45182   | ALT TO ELECT POWER SYSTEME  | 850128 | 16,456          |              |         | 16,456    |                 |
| 45190   | REPAIR CONCRETE ROADS B     | 860910 | 281,125         | 31,331       |         | 312,456   | -06             |
| 45205   | CLEAROJT CATAPULT TUNNEL G  | 861102 | 11,170          | 110-         |         | 10,060    | -02             |
| 45210   | CONST EQUIP STOR BLDG L     | 850426 | 185,275         | 1,153        |         | 187,439   | -02             |
| 45211   | REP FIRE ESCAPE B 17        | 850510 | 15,800          | 594          |         | 17,494    | -02             |
| 45218   | INSTAL. HEATING SYSTEM T    | 870227 | 62,800          | 1,500        |         | 64,300    | -01             |
| 45220   | CONST. NEW OFFICES 214/337L | 860220 | 1,043,125       | 27,668       |         | 1,070,794 | -05             |
| 45235   | CAT."D" HOUSING REPAIRS L   | 860325 | 457,444         | 23,378       |         | 480,822   | -05             |
| 45251   | COMPTR RM BLDG 407          | 850315 | 37,212          | 31,547       |         | 68,759    | -02             |
| 45256   | ALT TO COMD CLJ9 B 15       | 851111 | 49,359          | 1,375        |         | 50,734    | -02             |
| 45276   | DEMO SEWAGE TREAT. PLANT G  | 850725 | 140,000         | 2,539-       |         | 140,000   | -04             |
| 45283   | ELEC SYS BLDG 311,312,410L  | 850914 | 171,500         |              |         | 168,811   |                 |
| 45285   | RESTROOM RENOV 3.1J         | 860930 | 77,000          |              |         | 77,000    |                 |
| 45287   | CONCRETE LINTEL & JINDO4 W  | 851118 | 289,000         | 49,360       |         | 338,360   | -05             |
| 45289   | RENOVATE STAIRS, 3-DG #1 N  | 850208 | 24,000          | 20,382       |         | 44,382    | -02             |
| 45270   | ALT. TO DMA B-27            | 850402 | 32,745          | 2,369        |         | 35,114    | -02             |
| 45281   | NEW HANDICAPPED DOOR        | 951211 | 12,400          | 5,700        |         | 18,100    | -01             |
| 45283   | CONST RAMP/MOD DOORS B-36W  | 851223 | 13,750          | 3,364        |         | 17,114    | -02             |
| 45287   | DEMOL. COAL ASH SILCS       | 850909 | 67,653          | 1,347        |         | 69,000    | -01             |
| 45289   | OFFICE RENOV. 9-1           | 850110 | 11,420          | 1,538        |         | 13,958    | -01             |
| 45294   | FOOD SERV LINE REPAIRS H    | 850506 | 94,500          | 94,177       |         | 188,677   | -06             |
| 45290   | EDMCS INSTALLATION M        | 851108 | 424,400         | 50,956       |         | 475,356   | -03             |
| 45292   | RENOVATIONS TO RESTROOMS M  | 850508 | 14,958          |              |         | 14,958    | -01             |
| 45294   | DOOR REPAIRS                | 940713 | 15,250          | 75-          |         | 15,175    | -01             |
| 45291   | HTS BOILER REPLACEMENT E    | 850319 | 19,600          | 478-         |         | 19,122    | -04             |
| 45286   | EXTERIOR PAINTING N         | 861130 | 46,767          | 3,500        |         | 50,267    | -01             |
| 45293   | VARIOUS REPAIRS K           | 861219 | 22,619          |              |         | 24,519    |                 |
| 45297   | REPLACE ELECTRICAL SYSTEML  | 861201 | 117,645         | 2,454        |         | 120,099   | -04             |
| 45318   | MISC REPS TO BUILDING RDPC  | 850709 | 21,661          | 4,358        |         | 26,019    | -02             |
| 45336   | RMVE REPLC BITUM PAVING S   | 841205 | 11,080          |              |         | 11,080    |                 |
| 45336   | FURN INSTL SHMN FLRNG V     | 840919 | 29,000          |              |         | 29,000    |                 |
| 45314   | ARCH REPAIRS                | 850213 | 2,840,307       | 552,353      |         | 3,392,660 | -15             |

PVMDP.STAFF1.CNTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/88

27

JJMSU

40CDOOC

DOLLAR RANGE OF AWARD (\$300) K

LAST  
MOD NBR

CURPRI

MOD AMT  
CURPRI-AWARD

AWARD  
AMOUNT

903

DESCRIPTION

| AWARD AMOUNT | MOD AMT | CURPRI  | LAST MOD NBR |
|--------------|---------|---------|--------------|
| 45,000       | 1,725   | 45,000  | -01          |
| 48,425       |         | 48,425  | -01          |
| 29,541       | 1,590   | 29,541  | -03          |
| 14,658       |         | 14,658  | -03          |
| 92,000       |         | 92,000  | -03          |
| 209,880      |         | 209,880 | -03          |
| 4,335        | 1,919-  | 4,335   | -06          |
| 147,311      | 15,000  | 147,311 | -04          |
| 162,000      | 7,000   | 162,000 | -03          |
| 63,758       | 52,355- | 63,758  | -01          |
| 78,502       | 336     | 78,502  | -02          |
| 275,723      | 32,600  | 275,723 | -01          |
| 273,026      | 5,912   | 273,026 | -02          |
| 110,794      |         | 110,794 | -02          |
| 507,599      | 4,6709  | 507,599 | -05          |
| 245,739      | 12,219  | 245,739 | -04          |
| 229,283      |         | 229,283 | -01          |
| 71,110       |         | 71,110  | -02          |
| 566,515      | 11,515  | 566,515 | -01          |
| 41,860       |         | 41,860  | -01          |
| 29,500       |         | 29,500  | -01          |
| 76,791       | 5,000   | 76,791  | -01          |
| 38,721       |         | 38,721  | -03          |
| 199,884      | 11,833  | 199,884 | -03          |
| 383,965      | 5,245   | 383,965 | -04          |
| 18,100       |         | 18,100  | -01          |
| 75,720       | 9,495-  | 75,720  | -03          |
| 163,134      |         | 163,134 | -01          |
| 84,830       | 1,435   | 84,830  | -03          |
| 73,737       | 9,237   | 73,737  | -04          |
| 308,061      | 750     | 308,061 | -02          |
| 179,839      | 7,143   | 179,839 | -02          |
| 173,000      |         | 173,000 | -01          |
| 49,500       |         | 49,500  | -01          |
| 99,000       |         | 99,000  | -01          |
| 138,000      |         | 138,000 | -01          |
| 466,183      | 143,533 | 466,183 | -03          |
| 95,463       | 1,537-  | 95,463  | -05          |
| 236,240      | 15,260  | 236,240 | -03          |
| 146,595      | 38,395  | 146,595 | -06          |
| 81,625       | 5,575-  | 81,625  | -02          |

PNDWDF-STAFF1.CNTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
WHERE BDD IS PAST AND ACTUAL  
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RUN DATE: 07/05/83

| 26   | 3700 | 3000 | DESCRIPTION                  | BOJ    | AWARD<br>AMOUNT | CUPPRI-AMOUNT | CUPPRI  | LAST<br>MOD NBR |
|------|------|------|------------------------------|--------|-----------------|---------------|---------|-----------------|
| 3390 |      |      | INSLT DEENERATING TANKS 329T | 850527 | 13,673          | 533           | 16,303  | -02             |
| 3395 |      |      | DREDGING ARD BASIN I         | 350231 | 55,000          | 4,715-        | 50,285  | -02             |
| 3400 |      |      | NEW ROOFING BLDG 43 NUSC N   | 850717 | 137,735         | 3,240         | 140,975 | -01             |
| 3405 |      |      | SSN 563 SHRN RADIC MCKJPC    | 850708 | 356,803         | 15,367        | 371,667 | -01             |
| 3410 |      |      | REPAIRS & ALTERN'S BLDG 43 L | 851223 | 165,888         | 51,305        | 245,593 | -04             |
| 3415 |      |      | REP AND ALT TO BLDG 44 A     | 860520 | 655,453         | 17,531        | 675,131 | -03             |
| 3420 |      |      | INST VAX COMPTR RM 3RD FLD   | 860237 | 265,316         | 5,730         | 271,096 | -01             |
| 3425 |      |      | PAPKINS LOT BLDG 41          | 851306 | 88,303          | 5,625         | 96,625  | -01             |
| 3430 |      |      | CODE 325 CMPTR LAB RELCTNL   | 850521 | 99,983          | 7,000         | 105,983 | -01             |
| 3435 |      |      | PRVSN OF ALT PWP FEED TS40   | 860308 | 19,545          | 5,271         | 24,917  | -02             |
| 3440 |      |      | ALTREP TO TRANSDUCER LABC    | 850537 | 156,125         | 3,311         | 157,636 | -01             |
| 3445 |      |      | A/C 8 DIVD3 PARTN PFR 397C   | 850231 | 15,873          | 500           | 15,473  | -01             |
| 3450 |      |      | MAG PLATFORMS REPRS A        | 850321 | 135,703         |               | 135,703 | -02             |
| 3455 |      |      | ROOF REPAIRS, R-15 T         | 860430 | 128,203         |               | 128,203 | -01             |
| 3460 |      |      | NORMANDY ROAD PAVING D       | 850135 | 167,664         |               | 179,164 | -01             |
| 3465 |      |      | MAINT OF STATION P.R FACIL   | 851131 | 85,143          | 11,500        | 269,516 | -03             |
| 3470 |      |      | REPLACE 5 KV SUB CABLE C     | 860219 | 273,303         | 205,376       | 270,303 | -01             |
| 3475 |      |      | DEMOLITION BLDG. C-35 M      | 850431 | 14,983          | 240-          | 14,743  | -03             |
| 3480 |      |      | ALTERATION,VIDEOTAPE AREAG   | 850131 | 77,126          | 35,254        | 113,378 | -01             |
| 3485 |      |      | REPLACEMENT OF CEILING G     | 841132 | 157,195         | 731-          | 155,666 | -02             |
| 3490 |      |      | RPRS TO ELECT. DIST. SYS.L   | 841326 | 39,435          |               | 39,435  | -01             |
| 3495 |      |      | REPLACE INTERIOR DDORS V     | 850524 | 54,242          | 4,340         | 58,589  | -01             |
| 3500 |      |      | REPL OF ANT & TPANS A        | 850331 | 48,552          | 13,553        | 62,115  | -02             |
| 3505 |      |      | RPR EXT DRS AT N & MCRC W    | 850724 | 12,785          |               | 12,785  | -02             |
| 3510 |      |      | BLDG RPR AT NRC              | 850738 | 21,903          |               | 21,903  | -01             |
| 3515 |      |      | EXTERIOR OVERHEAD CRANE A    | 841328 | 33,003          |               | 33,003  | -01             |
| 3520 |      |      | ROOF RPRS & SKYLIGHTS N      | 851217 | 21,403          | 2,500         | 23,903  | -01             |
| 3525 |      |      | INTERIOR PAINTING OF AFRCV   | 851213 | 13,455          | 9,200         | 22,655  | -04             |
| 3530 |      |      | REPAIRING OF PIPE (5) P      | 860335 | 233,903         | 19,323        | 250,123 | -04             |
| 3535 |      |      | SECURITY VAULT,BLDG 20 S     | 850917 | 66,211          | 5,331         | 71,542  | -05             |
| 3540 |      |      | ROOF REPAIRS BLDG 513 M      | 850213 | 362,003         |               | 362,003 | -03             |
| 3545 |      |      | REPL HTS SYS K               | 860214 | 279,279         | 9,100         | 289,379 | -04             |
| 3550 |      |      | REPL 8" AIP MAIN S           | 850328 | 33,943          | 70-           | 30,873  | -03             |
| 3555 |      |      | BLDG 13 RPL EXHAUST SYS B    | 350218 | 22,521          | 225           | 23,645  | -03             |
| 3560 |      |      | REPLC 3JELIC ADDRESS SYSTEM  | 850530 | 55,003          |               | 55,003  | -02             |
| 3565 |      |      | 23 RPL CIRC PUMP K           | 860331 | 323,803         | 9,500         | 65,500  | -02             |
| 3570 |      |      | DRYDCK #3 BLDG. #326 F       | 870314 | 73,503          | 42,055        | 115,555 | -05             |
| 3575 |      |      | BOILER REPLACEMENT T         | 851323 | 47,476          |               | 49,676  | -04             |
| 3580 |      |      | BOILER SIGHT GLASSES S       | 860411 | 29,003          | 2,533         | 91,983  | -04             |
| 3585 |      |      | 2.3 KV SWITCHGEAR REPL W     | 860721 | 366,003         | 3,132-        | 360,868 | -04             |
| 3590 |      |      | FIRE DAMAGE B                | 850314 | 17,543          | 300           | 17,843  | -01             |

PVJMF.STAFF1.CNTL



CONSTRUCTION CONTRACTS GREATER THAN 10K  
WHERE 300 IS PAST AND ACTUAL  
SOURCE: CMS EXTRACT FILE

25 RUN DATE: 07/05/88

DOLLAR RANGE OF AWARD (\$300) K

25  
JUN30

OCDDO:

| OCDDO: | DESCRIPTION                  | BOJ    | AWARD AMOUNT | MOD AMT CUMULATIVE-AWARD | CURPRI    | LAST MOD NBR |
|--------|------------------------------|--------|--------------|--------------------------|-----------|--------------|
| 3367   | SK/INT PT 219,219,215,220P   | 860224 | 42,900       |                          | 42,900    | -02          |
| 3370   | REP PAVEMENTS PKG F C        | 870310 | 87,667       | 1,209                    | 89,875    | -03          |
| 3374   | RE ROOF BLDGS AT THE NAS P   | 851015 | 66,575       | 33                       | 66,508    | -02          |
| 3381   | RE ROOF BLDG 211 R           | 850524 | 56,120       | 5,239                    | 58,409    | -01          |
| 3383   | ALT & REP BLDGS 12 & 23 L    | 850107 | 17,200       | 1,531                    | 19,731    | -01          |
| 3384   | RECIRCULATING PUMP 3 275     | 850320 | 17,873       | 2,505                    | 20,478    | -01          |
| 3389   | REP TO WATER MAIN C          | 860329 | 297,940      |                          | 299,940   | -03          |
| 3390   | SUMMER STEAM SHUTDOWN P      | 850307 | 133,300      | 2,331                    | 135,631   | -11          |
| 3397   | REP/ALT BLDG 23J C           | 861129 | 1,057,000    | 25,177                   | 1,082,177 | -05          |
| 3405   | HGV 5 DOOF REPAIR S          | 860118 | 14,185       | 750                      | 14,945    | -01          |
| 3410   | MNT. OF AC TAXIWAY PAVMNTD   | 841212 | 83,527       | 353                      | 87,590    | -01          |
| 3411   | PPRS TO ROOF B-76 R          | 850530 | 35,880       | 6,300                    | 41,180    | -01          |
| 3414   | RPR 3 PHS POWER SUPPLY L     | 850616 | 32,405       | 109-                     | 32,295    | -02          |
| 3421   | CHILD CARE CENTER F          | 851214 | 50,070       |                          | 50,070    | -04          |
| 3422   | INSTL VEW SPRINKLER SYS H    | 850509 | 15,200       |                          | 15,200    | -02          |
| 3431   | INSTAL WASTE OIL TANK M      | 841228 | 12,865       |                          | 12,865    | -02          |
| 3474   | INT PAINTING OF B-75 M       | 850730 | 27,777       |                          | 27,777    | -02          |
| 3481   | ROAD REPAIRS M               | 841011 | 22,067       |                          | 22,067    | -02          |
| 3502   | REPAIR FIRE ALARM SYSTEM P   | 850225 | 12,987       |                          | 12,987    | -02          |
| 3508   | INSTL VEW SPRINKLER SYS H    | 850509 | 15,200       |                          | 15,200    | -01          |
| 3514   | BOILER INSTALLATION B-531P   | 850414 | 44,217       |                          | 44,217    | -02          |
| 3516   | ROOF REPAIRS & TRANS REPLP   | 850415 | 63,727       |                          | 69,797    | -01          |
| 3524   | REPLACE PCB TRANSFORMER S    | 850127 | 73,820       |                          | 73,820    | -01          |
| 3528   | UPGRADE FIRE ALARM SYS M     | 870701 | 14,770       |                          | 14,770    | -01          |
| 3537   | RPR EXTERIOR HOSP 3 #43 B    | 650318 | 215,225      |                          | 192,752   | -02          |
| 3538   | PRV GEN TELEP EXCHS B.77T    | 850131 | 61,400       | 700-                     | 215,225   | -02          |
| 3514   | REPL STREET LIGHTING LOOP    | 850419 | 465,665      | 2,555                    | 469,332   | -04          |
| 3516   | DEEP DRAFT SEPARATORS W      | 850229 | 127,990      | 20,494                   | 149,484   | -01          |
| 3512   | DEMOLITION OF SOUND PIER W   | 841024 | 28,890       | 2,000                    | 30,890    | -01          |
| 3529   | AC/DC TEST STANDS D          | 850307 | 12,415       |                          | 12,415    | -01          |
| 3537   | REPR ECONOMIZERS B-29 R      | 850520 | 105,943      |                          | 108,775   | -01          |
| 3541   | SEC POST & CHAIN SYS S       | 850417 | 26,849       | 10,000                   | 34,849    | -05          |
| 3552   | AC 3 E-EC SVY 2ND F.R E      | 850525 | 163,800      | 4,217                    | 168,017   | -02          |
| 3566   | PRVD AIR CVDTG/REC'N CNTRF   | 850408 | 15,800       |                          | 15,800    | -03          |
| 3569   | PHYSCL SECURITY SEAPNS AREAL | 850423 | 89,888       |                          | 93,433    | -04          |
| 3570   | RPL PNEU CNTRL S 440 P       | 870911 | 65,590       |                          | 64,008    | -02          |
| 3575   | NEA HEATING SYSTEM B. 93G    | 850411 | 53,590       |                          | 61,499    | -02          |
| 3586   | RPR HOT WATER HTG SYS B      | 840530 | 724,000      | 17,197                   | 741,187   | -05          |
| 3588   | REPLACE BOILERS 223 S        | 870227 | 194,234      | 38,193                   | 232,427   | -02          |
| 3588   |                              | 851015 | 47,834       |                          | 49,834    | -02          |

PNUMDF-STAFF1-CNTL





CONSTRUCTION CONTRACTS GREATER THAN 10K  
WHERE BDD IS PAST AND ACTUA-  
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/88

24

JJY3U

05CDOC

DOL-AR RANGE OF AWARD (\$300) <

|       | DESCRIPTION                 | 503    | AWARD<br>AMOUNT | CURPRI-AWARD | MOD AWT | CURPRI  | LAST<br>MOD NBR |
|-------|-----------------------------|--------|-----------------|--------------|---------|---------|-----------------|
| 41832 | RPR STEAM TR COVERS, B35 S  | 850415 | 17,757          |              |         | 19,757  |                 |
| 41838 | MISC ROAD REPAIRS           | 260711 | 45,023          |              |         | 45,023  | -02             |
| 41840 | ROAD REPAIRS                | 851316 | 204,132         |              | 17,532  | 221,664 | -02             |
| 41846 | RMV PCB TRANSFORMERS        | 860430 | 95,104          |              | 4,511   | 99,615  | -01             |
| 41900 | RPL LIGHTING 9-155 AND240C  | 850320 | 18,894          |              | 1,553   | 19,447  | -01             |
| 41904 | BLDG 93 MOT4BALLING         | 950317 | 372,783         |              | 112,535 | 485,318 | -04             |
| 41913 | RENOVATE RESTAURANT B-174B  | 860512 | 61,504          |              | 552     | 62,056  | -04             |
| 41917 | REHAB TO HOUSING OFFICE J   | 850324 | 147,574         |              |         | 147,574 | -03             |
| 41920 | B. 170 RENOV FRNT ELEVATORJ | 870115 | 463,003         |              | 17,030- | 480,033 | -04             |
| 41923 | BERTH 13 SUPPORT FAC        | 850127 | 375,703         |              | 789     | 376,492 | -01             |
| 41931 | DC FEEDER BLDG.300          | 970916 | 85,803          |              |         | 85,803  | -03             |
| 41945 | B-170 INSTALL SIDING        | 860228 | 51,422          |              | 415     | 51,937  | -03             |
| 41946 | ADD BA-CONY SPACE 30#1      | 960515 | 17,703          |              | 4,550   | 22,253  | -04             |
| 41951 | CONCRETE RPR DDW1           | 840926 | 47,723          |              | 43,233  | 90,956  | -03             |
| 41960 | H717A/NEW LOCKER ROOMS      | 870427 | 178,003         |              | 4,793   | 182,796 | -03             |
| 41962 | UPS ROOM COOLING            | 850331 | 15,245          |              |         | 15,245  | -03             |
| 41967 | BRIDGE #2 VEM DECK          | 841212 | 234,575         |              | 59,537  | 294,112 | -05             |
| 41968 | HF LAB RENOV BLDG.24J       | 871131 | 47,687          |              |         | 47,687  | -02             |
| 41972 | B.195 RENOV FOR VEH MAINTZ  | 850222 | 47,803          |              | 0       | 49,890  | -02             |
| 41975 | NEW DC ELEC DUCTS SICARD S  | 951135 | 32,865          |              | 22,538  | 55,403  | -02             |
| 41977 | NEW SHOWER FACILITY         | 850411 | 33,503          |              |         | 33,503  | -05             |
| 41982 | NEW 24WAY ELEC DUCT B.11 M  | 860431 | 143,703         |              | 12,935- | 156,638 | -04             |
| 42011 | RPR/H4 PIPES                | 851116 | 113,835         |              | 19,559  | 133,394 | -01             |
| 42012 | B. 171 FOUNDATION/S-AB      | 850729 | 23,362          |              | 3,733   | 27,095  | -01             |
| 42014 | INSTAL - ALARM SUP          | 660523 | 18,503          |              | 715     | 19,218  | -03             |
| 42017 | INST MEZZANINE 3299         | 851218 | 42,003          |              | 3,528   | 45,531  | -04             |
| 42023 | BH 29 VIS RENOVATION        | 860716 | 87,452          |              |         | 87,452  | -04             |
| 42270 | TREE TRIM                   | 850331 | 12,357          |              |         | 12,357  | -06             |
| 42500 | RPR. & ALT. TO BLDG 4.      | 860137 | 814,303         |              | 33,356  | 847,659 | -06             |
| 42510 | RPR & ALT BLDGS 381 & 332C  | 851133 | 865,003         |              | 3,733   | 868,736 | -06             |
| 42517 | REP STAIRWAY WHOLE          | 860731 | 63,003          |              | 3,470   | 66,473  | -03             |
| 42521 | DEMOLITION OF BLDG. 369 W   | 850924 | 403,703         |              | 97,303  | 501,006 | -01             |
| 42527 | VOID20-PEST CONTROL BLDG. K | 250917 | 155,003         |              | 3,531   | 158,534 | -03             |
| 42528 | HVAC SPM RPR BID 645        | 861337 | 49,269          |              | 391     | 49,660  | -03             |
| 42533 | VOID20 EXIT ACCESS HANGAR K | 850939 | 185,003         |              | 21,215  | 206,218 | -06             |
| 42535 | HANGAR PROS.                | 870531 | 15,303          |              |         | 15,303  | -03             |
| 42543 | UPGRADE ELECT TO 35KV       | 850531 | 183,932         |              | 23,535  | 207,467 | -03             |
| 42546 | RE/ALTER COMM STORE B335L   | 860929 | 53,003          |              | 3,544   | 56,547  | -04             |
| 42550 | IMPROVEMENTS TO EM -L03 L   | 851216 | 76,934          |              | 2,553   | 79,487  | -05             |
| 42563 | REP & IMP TO BLDG 9         | 850720 | 133,953         |              |         | 133,953 | -05             |
| 42565 | REP BLDG 339                | 850731 | 113,803         |              | 1,259-  | 115,062 | -02             |

PUNJMF.STAFF1.CVT.



CONSTRUCTION CONTRACTS GREATER THAN 10K  
WHERE BDD IS PAST AND ACTUAL  
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/83

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DOLLAR RANGE OF AWARD (\$000) K

| PRJCD00C | BOJ | AWARD<br>AMOUNT | MOD AMT<br>CUMPRI-AWARD | CURPRI  | LAST<br>MOD NBR |
|----------|-----|-----------------|-------------------------|---------|-----------------|
| 341017   | E   | 24,933          | 10,340                  | 35,273  | -01             |
| 341019   | D   | 10,402          |                         | 10,402  | -03             |
| 341023   | C   | 55,300          | 7,375                   | 65,675  | -02             |
| 341034   | G   | 683,000         |                         | 683,000 | -01             |
| 341035   | K   | 217,340         | 3,522-                  | 220,862 | -07             |
| 341036   | C   | 81,470          | 24,305                  | 105,775 | -03             |
| 341037   | L   | 65,248          | 5,547                   | 72,095  | -01             |
| 341038   | L   | 39,483          |                         | 39,483  | -01             |
| 341039   | L   | 60,328          | 5,139                   | 65,467  | -01             |
| 341040   | H   | 54,187          |                         | 54,187  | -01             |
| 341041   | H   | 13,990          |                         | 13,990  | -01             |
| 341042   | H   | 92,350          | 25,000                  | 117,350 | -01             |
| 341043   | R   | 22,700          |                         | 22,700  | -01             |
| 341044   | H   | 21,250          |                         | 21,250  | -03             |
| 341045   | H   | 87,000          | 7,349                   | 94,349  | -07             |
| 341046   | H   | 302,203         | 64,737                  | 366,940 | -02             |
| 341047   | S   | 22,500          | 3,951                   | 26,451  | -02             |
| 341048   | S   | 199,213         |                         | 199,213 | -01             |
| 341049   | F   | 13,400          | 1,175                   | 14,575  | -01             |
| 341050   | F   | 15,215          | 718-                    | 15,933  | -01             |
| 341051   | F   | 21,439          | 3,549                   | 24,988  | -02             |
| 341052   | C   | 73,000          |                         | 73,000  | -01             |
| 341053   | D   | 137,000         |                         | 137,000 | -02             |
| 341054   | D   | 52,900          | 3,220                   | 56,120  | -02             |
| 341055   | M   | 52,940          |                         | 52,940  | -02             |
| 341056   | A   | 17,800          | 900                     | 18,700  | -05             |
| 341057   | T   | 167,745         | 57,500                  | 225,245 | -01             |
| 341058   | D   | 63,000          |                         | 63,000  | -01             |
| 341059   | D   | 25,000          |                         | 25,000  | -01             |
| 341060   | M   | 21,483          |                         | 21,483  | -05             |
| 341061   | A   | 245,613         | 35,548                  | 281,161 | -03             |
| 341062   | A   | 617,000         | 17,000                  | 634,000 | -03             |
| 341063   | M   | 105,295         |                         | 105,295 | -03             |
| 341064   | M   | 180,948         | 3,539                   | 184,487 | -01             |
| 341065   | A   | 43,700          |                         | 43,700  | -01             |
| 341066   | A   | 71,100          | 3,498                   | 74,598  | -01             |
| 341067   | P   | 87,235          | 23,125                  | 110,360 | -01             |
| 341068   | B   | 35,100          |                         | 35,100  | -03             |
| 341069   | C   | 102,000         | 5,339                   | 107,339 | -03             |
| 341070   | H   | 22,576          |                         | 22,576  | -03             |
| 341071   | M   | 142,000         | 3,592                   | 145,592 | -01             |
| 341072   | S   | 123,000         | 5,156                   | 128,156 | -01             |

PJNDJF.STAFF1.CYT.



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/88

DOLLAR RANGE OF AWARD (\$300) K

22

1JUN80

PRCDDC

LAST MOD NBR

CJRPRI

MOD AMT CUPPRI-AWARD

| PRCDDC | DESCRIPTION                | 903     | AWARD AMOUNT | MOD AMT CUPPRI-AWARD | CJRPRI    | LAST MOD NBR |
|--------|----------------------------|---------|--------------|----------------------|-----------|--------------|
| 34J515 | RPRS TJ ELEC SYSTEM        | M       | 64,200       | 5,500                | 69,800    | -03          |
| 34J516 | ALT TEMPEST SEC INT_ LAB M | 850121  | 519,500      | 9,711                | 529,211   | -02          |
| 34J518 | C-9 AR-FT WVT HNGP         | 880131  | 3,110,917    | 143,576              | 3,254,493 | -19          |
| 34J526 | RPRS TJ TERMINAL ROAD      | 850515  | 236,375      | 11,728               | 248,103   | -03          |
| 34J529 | RPRS TJ CAPD & WOODS RD    | 350334  | 143,284      | 4,362                | 147,646   | -03          |
| 34J536 | LEACH 3 IT, CAPE COD AFS   | 841118  | 12,763       |                      | 12,763    | -04          |
| 34J537 | REPR E-EC. SYSTEMS         | 840909  | 121,200      | 31,261               | 152,461   | -04          |
| 34J539 | FM-Y HSG. REPAIRS          | 861114  | 3,095,922    | 97,550               | 3,193,472 | -08          |
| 34J541 | RNVL & ROUG GRADNS         | 841237  | 23,575       | 1,322                | 24,897    | -02          |
| 34J544 | CORRECT LFI STA DRAINAGE N | 860931  | 681,325      | 33,254               | 714,579   | -07          |
| 34J604 | DEMOLISH PIER              | 861330  | 197,300      | 13,000               | 210,300   | -01          |
| 34J605 | MAIV GATE RELECT-GAIEHSE D | 840518  | 566,495      | 24,377               | 590,872   | -09          |
| 34J608 | T-9 SOJND SUPPRESSOR       | 871327  | 409,808      | 12,598               | 422,406   | -02          |
| 34J610 | OFF-BASE WORK              | 870716  | 2,175,415    | 146,559              | 2,321,974 | -15          |
| 34J613 | INITIA. AWARD              | 860716  | 147,250      |                      | 147,250   | -02          |
| 34J616 | FUEL MANIFOLD VALVES       | 870733  | 873,000      | 204,550              | 1,077,550 | -10          |
| 34J618 | REPAIR TANKS AND PIPING    | 850114  | 485,510      | 20,329               | 505,839   | -04          |
| 34J619 | NEW OLD ROOFING            | 851139  | 176,670      | 11,738               | 188,408   | -02          |
| 34J620 | SMALL ARMS RANGE           | 851139  | 1,195,500    | 33,504               | 1,229,004 | -11          |
| 34J622 | SMALL ARMS RANGE           | 850910  | 780,750      | 495                  | 781,245   | -04          |
| 34J624 | CHECK JAULT                | 880210  | 769,165      | 3,966                | 773,131   | -01          |
| 34J628 | RPR/ALTER TRAINING BLD 31S | 870530  | 235,231      | 3,779                | 239,010   | -05          |
| 34J644 | RPR TAVILOACY LIGHTS       | 850835  | 27,580       |                      | 27,580    | -03          |
| 34J652 | REPAIR ROOF                | 850537  | 54,990       | 11,914               | 66,904    | -03          |
| 34J661 | REPAIR ROOF                | 890211  | 47,700       | 3,561                | 51,261    | -01          |
| 34J664 | RPR STA PERIMETER FENCE    | 873327  | 139,810      | 2,122                | 141,932   | -02          |
| 34J670 | REPAIR HANBAR ROOF 3L 1    | 861339  | 321,505      |                      | 321,505   | -02          |
| 34J672 | A/C SECURITY GROUP         | 870530  | 281,360      | 745                  | 282,105   | -03          |
| 34J681 | HRI-82 EXTERIOR REPAIRS    | 860530  | 25,733       | 5,727                | 31,460    | -03          |
| 34J683 | HANDICAPPED ACCESS         | 850519  | 220,371      | 3,100                | 223,471   | -02          |
| 34J684 | ROOF REPLACEMENT B_26 711V | 870310  | 45,475       | 349                  | 45,824    | -02          |
| 34J727 | REFJEL VEH-PARK_HTD        | 880423  | 340,750      | 19,895               | 360,645   | -01          |
| 34J731 | FABRIC AND OPTIM BUIL TPSI | 870733  | 567,000      | 5,556                | 572,556   | -02          |
| 34J953 | 5-TON OVERHEAD CRANE       | 840931  | 107,842      | 107,842              | 215,684   | -05          |
| 341455 | FABRIC 50-TON JET CRANE    | 870328  | 741,764      | 17,534               | 759,298   | -10          |
| 341462 | POLLUTION ABATEMENT        | 850125  | 481,935      | 53,465               | 535,400   | -03          |
| 341605 | PRIMARY POWER REPAIRS      | 850129  | 39,860       | 1,317                | 41,177    | -03          |
| 341607 | RENOV TOILET FAC B 114     | 185,900 | 185,900      | 22,317               | 208,217   | -03          |
| 341613 | RPRS E-EC SYST BLD3 1A     | 650521  | 25,447       | 2,352                | 27,799    | -01          |
| 341614 | RPRS E-EC SYST BLD3 1A     | 850411  | 36,952       | 2,148                | 39,100    | -01          |

PJMDF.STAFF1.ENT.



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: C4S EXTRACT FILE

RUN DATE: 07/05/88

21

DOLLAR RANGE OF AWARD (\$000) K

J430

0000:

|      | DESCRIPTION                | BOX    | AWARD<br>AMOUNT | MOD AMT<br>CUPPRI-AMRD | CUPPRI    | LAST<br>MOD NBR |
|------|----------------------------|--------|-----------------|------------------------|-----------|-----------------|
| J112 | REPAIR SWITCHGEARS 3L 520S | 890331 | 432,000         | 25,953                 | 457,953   | -08             |
| J116 | PIER 7 RPR FIRE SYSTEM     | 860301 | 1,437,540       | 294,233                | 1,731,773 | -10             |
| J117 | REPAIR FIRE SYSTEM         | 861112 | 976,250         | 20,775                 | 995,025   | -07             |
| J125 | HR13-33                    | 851122 | 2,970,000       | 315,373                | 3,285,373 | -09             |
| J126 | HR2-83                     | 860505 | 2,407,420       | 163,816                | 2,571,236 | -08             |
| J127 | WHOLE SITE RRS 3TRS G 3 FN | 850503 | 75,740          | 76,740                 | 152,480   | -03             |
| J133 | PR 32 JTR LINE EXTENSN H   | 860102 | 387,205         | 3,547                  | 390,752   | -03             |
| J143 | RPRS T3 RADIATOR-VALVES S  | 870530 | 518,810         | 53,810                 | 572,620   | -01             |
| J145 | VACUUM PUMP INSTALLATION K | 851129 | 12,369          |                        | 12,369    | -02             |
| J147 | RPR POTABLE WTR PIPE S     | 871118 | 129,924         | 22,000                 | 151,924   | -02             |
| J148 | REPAIR COMPRESS AIR LIVE C | 860130 | 584,100         | 75,239                 | 659,339   | -13             |
| J152 | MA-E/FEMALE HEAD REPAIR    | 860307 | 47,500          | 52,527                 | 100,027   | -02             |
| J101 | REPR H/JAC-JEPH 972        | 850320 | 535,240         | 24,441                 | 559,681   | -11             |
| J103 | QPR ELEC DIST SYS FEED/R4S | 860714 | 262,700         | 33,254                 | 295,954   | -05             |
| J105 | TEST ANALYS B-533 1ST FLRG | 860523 | 592,447         | 83,325                 | 675,772   | -05             |
| J109 | PERISCOPE FAC ADTH A       | 860508 | 887,445         | 5,870                  | 893,315   | -05             |
| J110 | REPAIR ROOF, BLDG. 100J Q  | 870311 | 444,440         |                        | 444,440   | -03             |
| J117 | REPAIRS TO WHARF H         | 860730 | 247,805         | 55,158                 | 302,963   | -04             |
| J122 | RPR DUSTWORK-BOILERS U     | 871120 | 1,484,400       | 39,310                 | 1,523,710 | -05             |
| J129 | RPR ROFF BLDG 105          | 861002 | 90,800          | 7,954                  | 98,754    | -02             |
| J137 | REPAIR ROOF, BLDG. 663 M   | 850315 | 141,200         | 141,200                | 282,400   | -10             |
| J138 | D.P. FACILITY RENOVATIONSP | 860309 | 1,017,000       | 452,384                | 1,469,384 | -03             |
| J142 | RPRS/A-1S ACQ DEPT 77L G   | 870227 | 1,944,000       | 3,315                  | 1,947,315 | -03             |
| J144 | ELEC WTR MAINS             | 860501 | 1,352           | 63,998                 | 65,350    | -05             |
| J251 | TACAM0/GPS VAVGTN E2PT G   | 870917 | 3,180,000       | 227,595                | 3,407,595 | -07             |
| J252 | DIESEL TRAINING FAC-II B   | 890223 | 4,238,840       | 21,335                 | 4,260,175 | -14             |
| J279 | SOLAR HEAT SYSTEM          | 841102 | 1,444           | 2,929                  | 4,373     | -02             |
| J295 | OWN SRVLC-BLDG ADTN S      | 870622 | 2,049,661       | 74,188                 | 2,123,849 | -20             |
| J291 | OIL SPILL PREVENTION M     | 870912 | 293,700         | 25,101                 | 320,801   | -09             |
| J354 | Y053A STAIR TOWER 3-DG114C | 860318 | 184,985         | 13,977                 | 198,962   | -02             |
| J355 | TRAY 1-5 AND 5TH APRN REPB | 870506 | 3,095,491       | 111,748                | 3,207,239 | -05             |
| J385 | COILING TOWER RELOCATION B | 850308 | 24,768          | 13,344                 | 38,112    | -02             |
| J336 | EXTERIOR RPRS BLDG 43-DUTP | 870423 | 179,000         | 9,224                  | 188,224   | -04             |
| J389 | CONSTRCT SCUD FLR C-SR4 R  | 860326 | 74,052          |                        | 74,052    | -02             |
| J391 | NEW PASSENGER ELEVATOR D   | 850729 | 179,310         | 1,459                  | 180,769   | -03             |
| J432 | MATERIALS SVS FAC ADDN S   | 850513 | 851,499         | 3,500                  | 855,000   | -01             |
| J502 | MATERIALS SVS FAC ADDN S   | 860515 | 804,400         | 15,774                 | 820,174   | -02             |
| J505 | ADD AIRCPT PKG GVNAS B     | 860515 | 804,400         | 57,191                 | 861,591   | -03             |
| J510 |                            | 871113 | 1,935,935       | 122,400                | 2,058,335 | -10             |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| 20   | 3130 | 3000C | RUN DATE:                   | 07/US/88 | DOLLAR RANGE OF AWARD (\$300) X | AWARD AMOUNT | CURPFI-AWARD | MOD AMT | CURPRI    | LAST MOD | MOD VBR |
|------|------|-------|-----------------------------|----------|---------------------------------|--------------|--------------|---------|-----------|----------|---------|
|      |      |       | DESCRIPTION                 | POB      |                                 |              |              |         |           |          |         |
| 3376 |      |       | RPL BOILERS R-2574          | H        | 86037                           | 279,900      |              | 3,374   | 282,974   |          | -02     |
| 3377 |      |       | RENO BAYS 11-13 9-33        | T        | 85031                           | 95,810       |              | 5,415   | 101,225   |          | -03     |
| 3378 |      |       | 2ND DECK AND OFFICE 9-39    | G        | 85032                           | 81,700       |              | 13,500  | 95,300    |          | -02     |
| 3379 |      |       | RENOVATE B-2087             | L        | 85021                           | 263,990      |              | 65,533  | 315,523   |          | -06     |
| 3380 |      |       | RENOVATE BLDG 2038          | N        | 85022                           | 129,612      |              | 25,559  | 159,279   |          | -04     |
| 3381 |      |       | RENOV. SECOND & 3RD FL. 41A | N        | 84117                           | 129,439      |              |         | 129,439   |          | -04     |
| 3382 |      |       | RPL F/A SYS                 | R        | 86051                           | 97,000       |              | 33,438  | 129,438   |          | -04     |
| 3383 |      |       | AIR COMP METERING           | G        | 85071                           | 45,200       |              | 46,200  | 46,200    |          | -02     |
| 3384 |      |       | RP - UNDERGRND ELEC SYS     | B        | 87071                           | 233,000      |              | 23,708  | 253,708   |          | -01     |
| 3385 |      |       | REP ROOF L/1200, 9400 ETCU  | B        | 84052                           | 179,123      |              |         | 179,123   |          | -01     |
| 3386 |      |       | HELICOPTER INTERGRAIN FACD  | B        | 86030                           | 338,000      |              | 25,934  | 363,984   |          | -07     |
| 3387 |      |       | REPAIRS UEPH BLDG. 55       | B        | 84121                           | 329,346      |              |         | 328,344   |          | -01     |
| 3388 |      |       | Y749A SAFETY ALT.           | L        | 85012                           | 62,200       |              | 159     | 62,359    |          | -01     |
| 3389 |      |       | WIRE BLDG. 27               | M        | 87022                           | 55,900       |              | 540     | 56,440    |          | -01     |
| 3390 |      |       | HEATING RFRS R-#36          | G        | 84117                           | 99,790       |              |         | 99,790    |          | -05     |
| 3391 |      |       | REPLACE ROOF BLDG. 521      | E        | 84026                           | 277,439      |              | 22,380  | 300,319   |          | -05     |
| 3392 |      |       | RPR ROOF, WINDWS, DR SDNG   | P        | 85012                           | 197,700      |              |         | 199,700   |          | -05     |
| 3393 |      |       | PARKING LOT PAVING          | P        | 84025                           | 731,170      |              | 66,172  | 795,342   |          | -05     |
| 3394 |      |       | RPR ST4 MCFRETT             | D        | 85101                           | 161,709      |              | 6,500   | 166,209   |          | -02     |
| 3395 |      |       | ROAD & SIDEWALK REPAIRS     | A        | 84025                           | 329,900      |              |         | 329,900   |          | -05     |
| 3396 |      |       | ROAD/SIDEWALK REPAIRS       | A        | 85035                           | 587,500      |              | 97,455  | 684,955   |          | -03     |
| 3397 |      |       | REPAIR/REPLACE ROOF         | K        | 84117                           | 691,000      |              | 547,242 | 1,238,242 |          | -03     |
| 3398 |      |       | STREET IMPS, MC             | M        | 87051                           | 117,990      |              |         | 117,990   |          | -07     |
| 3399 |      |       | ROOF P-RS BLDG 91-H         | E        | 85031                           | 215,999      |              | 129,916 | 345,915   |          | -07     |
| 3400 |      |       | ROOF REPAIRS                | E        | 85031                           | 103,769      |              |         | 103,769   |          | -03     |
| 3401 |      |       | AUTOMATED ATA STARTER STAI  | I        | 86121                           | 192,529      |              |         | 192,529   |          | -01     |
| 3402 |      |       | ALIGN BRIDGE CRANE RAILS    | C        | 86117                           | 26,950       |              | 3,474   | 28,424    |          | -01     |
| 3403 |      |       | RPR ALT TO CODE 504 OFC G   | G        | 86022                           | 443,800      |              | 45,770  | 489,570   |          | -06     |
| 3404 |      |       | EXT REPAIRS, BLDG 632       | C        | 85022                           | 17,500       |              |         | 17,500    |          | -01     |
| 3405 |      |       | NEW ROOFING BLDG 132        | D        | 85026                           | 129,000      |              | 5,792   | 135,782   |          | -01     |
| 3406 |      |       | NEW EXT DOORS               | J        | 85108                           | 73,500       |              |         | 73,500    |          | -01     |
| 3407 |      |       | REPAIR CDE 203 VP OFFICES   | C        | 85101                           | 589,684      |              | 52,770  | 642,454   |          | -12     |
| 3408 |      |       | REPAIR AC #26 BLDG 1        | C        | 83031                           | 359,000      |              | 23,353  | 382,353   |          | -05     |
| 3409 |      |       | REPAIRS TO AC38             | L        | 87032                           | 563,100      |              | 81,178  | 649,279   |          | -03     |
| 3410 |      |       | NC1-83 NEW MIL HOUSING      | P        | 85031                           | 195,595      |              | 490-    | 195,105   |          | -04     |
| 3411 |      |       | INSTALL FUEL OIL FDMR TANK  | P        | 85031                           | 112,211      |              | 7,200   | 119,411   |          | -04     |
| 3412 |      |       | INSTALL JIB CRANES 3 BRJWL  | P        | 85022                           | 133,333      |              | 53,035  | 186,369   |          | -02     |
| 3413 |      |       | CROSS-SATE SIGNALS          | P        | 85030                           | 116,754      |              | 3,040   | 119,794   |          | -01     |
| 3414 |      |       | FACILITY ENERGY IMPS        | L        | 87111                           | 1,423,577    |              | 15,964- | 1,408,613 |          | -04     |
| 3415 |      |       | CRANE RUNWAY                | R        | 87112                           | 1,117,000    |              | 2,756   | 1,119,756 |          | -03     |

PNDHDF.STAFF1.CNT.



CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| 19    | 11 | 07/05/88 | DESCRIPTION                 | 900 | AWARD<br>AMOUNT | MCD AMT<br>CUPPRI-44ARD | CURPRI  | LAST<br>MOD YBR |
|-------|----|----------|-----------------------------|-----|-----------------|-------------------------|---------|-----------------|
| 34567 |    |          | REPR. TO VAR ELEVATORS      | S   | 449,809         | 12,931                  | 462,709 | -02             |
| 34572 |    |          | EXT FACADE RESTOR 3-D 29 A  |     | 112,213         | 17,439                  | 129,652 | -02             |
| 34580 |    |          | DEBRIS BARRIER WINCH SYS N  |     | 132,711         |                         | 132,711 | -01             |
| 34542 |    |          | CIA FENCE                   | C   | 86,011          | 24,939                  | 104,255 | -01             |
| 34551 |    |          | DEMOL & REMOV VAR 3-DGS. D  |     | 84,923          |                         | 84,923  | -01             |
| 34508 |    |          | REPAIR HVAC SYSTEM 3LDS 2C  |     | 96,553          | 13,311                  | 83,539  | -01             |
| 34521 |    |          | RENOVA SCORSBY LAB 3-1 G    |     | 33,125          | 95,578                  | 123,703 | -05             |
| 34528 |    |          | COILING WATER SYS 3/0 C     |     | 84,129          |                         | 87,735  | -04             |
| 34581 |    |          | HAZARD WASTE FAC            | P   | 135,203         | 5,392                   | 142,592 | -04             |
| 34585 |    |          | REPR/ALTER CENTER ADITORE   |     | 225,403         | 1,359                   | 227,759 | -03             |
| 34900 |    |          | ALTERATIONS FOR TECH DATA   |     | 39,803          |                         | 39,803  | -02             |
| 34912 |    |          | CONST 308T MAINT & DPR 3 G  |     | 65,475          | 7,59                    | 87,245  | -02             |
| 34917 |    |          | RFRS TO FREIGHT ELEVATOR P  |     | 68,171          |                         | 69,171  | -03             |
| 34920 |    |          | RPR TO ELECTRIC LIVES 3     |     | 218,003         | 35,335                  | 254,335 | -03             |
| 34929 |    |          | NEW FUE. OIL BURNER BLD15N  |     | 51,173          | 5,515                   | 56,588  | -01             |
| 34935 |    |          | RPRS TO BOILER #A           | D   | 121,103         | 13,371                  | 131,471 | -03             |
| 34940 |    |          | ALTER ELEC. SUPPLY 3-139 S  |     | 15,736          |                         | 15,736  | -01             |
| 34983 |    |          | 2400 VOLT LOOP              | B   | 179,003         | 14,332                  | 192,332 | -02             |
| 34987 |    |          | ADDITION COMPUTER ROOM M    |     | 113,383         | 1,339                   | 115,183 | -02             |
| 34986 |    |          | RPRS TO ROOFS               | 9   | 49,939          | 19,797                  | 69,985  | -03             |
| 34991 |    |          | REMOV & REPL VAR TRANSFORM  |     | 97,403          | 13,958                  | 85,442  | -03             |
| 34996 |    |          | REPR FIRE ALARM SYS VAR BK  |     | 73,003          |                         | 70,003  | -01             |
| 35007 |    |          | RECEIVING DOCKS 9LDS 1J9 M  |     | 154,613         | 12,782                  | 167,395 | -01             |
| 35221 |    |          | RPR ROOF BLDG 305           | T   | 315,403         | 15,433                  | 331,003 | -02             |
| 35226 |    |          | ALT. WASE. MECH. BLDG 207L  |     | 335,803         | 134,235                 | 470,035 | -07             |
| 35243 |    |          | TELECOMMUNICATION DJETS L   |     | 155,463         | 44,588                  | 201,351 | -05             |
| 35249 |    |          | DUST COLLECTOR & VENT SYSE  |     | 115,799         | 11,831                  | 129,529 | -03             |
| 35269 |    |          | MASONRY REPAIRS             | S   | 23,654          |                         | 23,654  | -03             |
| 35452 |    |          | RPP LIGHTING BLDG 35        | L   | 125,597         | 23,215                  | 148,812 | -07             |
| 35506 |    |          | INST PORTABLE WATER MOBIL M |     | 92,003          | 36,323                  | 126,323 | -01             |
| 35506 |    |          | REPR SANITARY SEWER         |     | 33,003          | 198                     | 29,802  | -01             |
| 35329 |    |          | HAZARDOUS WASTE             | N   | 17,003          |                         | 17,003  | -05             |
| 35254 |    |          | SEED ENIGNE SITE            | E   | 19,324          |                         | 19,324  | -05             |
| 35128 |    |          | PODF REPAIRS                | O   | 779,903         | 3,311                   | 789,211 | -01             |
| 35135 |    |          | DEMOLITION OF BATCH PLANT N |     | 19,803          |                         | 19,803  | -01             |
| 35170 |    |          | NEW SPRINKLER SYSTEM A      |     | 106,403         | 3,143                   | 107,543 | -02             |
| 35309 |    |          | MAGAZINE                    | I   | 387,255         | 43,234                  | 432,543 | -02             |
| 35324 |    |          | TEST CHAMBERS B-143         | M   | 49,403          | 579                     | 49,999  | -01             |
| 35360 |    |          | INTERIOR PAINTING           | H   | 92,503          | 6,319                   | 97,319  | -02             |
| 35370 |    |          | ALIS. TO BLDGS 39 AT MASC   |     | 125,223         | 3,239                   | 128,487 | -06             |
| 35395 |    |          | REPLACE BOILER 2737 G       |     | 681,691         |                         | 681,691 | -01             |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 3DD IS PAST AND ACTUA-  
 SOURCE: CMS EXTRACT FILE

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| MOD NBR | LAST | CURPRI  | MCD AMT | AWARD   | BOJ    | DESCRIPTION                 | DOLLAR RANGE OF AWARD (\$300) K |
|---------|------|---------|---------|---------|--------|-----------------------------|---------------------------------|
| 22730   | -03  | 31,893  | 3,527-  | 35,423  | 870331 | EXT PAINTING FAMILY HSE C   |                                 |
| 22751   | -01  | 235,429 | 11,437  | 223,942 | 840207 | TPIDENT SETAR SUP FAC 112M  |                                 |
| 22752   | -02  | 96,255  |         | 96,255  | 851229 | RPRS. NO. 2 YMER, SJR 7 C   |                                 |
| 22753   |      | 124,003 |         | 124,003 | 840925 | REPLACE OCS'S SUB STA. 7 O  |                                 |
| 22764   | -03  | 128,145 | 14,579  | 113,567 | 840514 | STORM DRAINAGE, CHI, OTRSS  |                                 |
| 22788   | -03  | 64,367  | 5,008-  | 69,375  | 840725 | WALK RPRS VETC C            |                                 |
| 22799   |      | 45,973  |         | 45,973  | 851226 | WALK RPRS VETC C            |                                 |
| 23306   | -05  | 396,078 | 9,078   | 385,003 | 860327 | ALT/RPR BLDG 164 2ND FLR L  |                                 |
| 23330   |      | 11,400  |         | 11,400  | 830437 | PRDV. 4TG. ELEMENTS         |                                 |
| 23342   | -01  | 56,003  |         | 56,003  | 860528 | REFINISH GYM FLOOR K        |                                 |
| 23355   | -02  | 76,444  |         | 76,444  | 870122 | SITE PREP ADP FAC 333 L     |                                 |
| 23355   | -05  | 119,172 | 20,572  | 97,603  | 850435 | RENOVATIONS TO 3-141 A      |                                 |
| 23361   | -02  | 97,577  | 2,755   | 94,812  | 871026 | ALT'S SOUTHEAST SIDE L      |                                 |
| 23369   | -02  | 13,515  | 1,155   | 12,463  | 831011 | RPR FIRE DAMAGE OTRSS 6108E |                                 |
| 23701   | -09  | 156,095 | 29,316  | 126,782 | 841317 | CONCRETE PLTFRM/WALL REPRSS |                                 |
| 23705   | -03  | 186,400 | 3,400   | 181,003 | 841121 | RPR BOILER MESS HALL K      |                                 |
| 23707   | -04  | 135,835 | 22,165- | 157,003 | 850137 | ROAD REPAIRS W              |                                 |
| 23707   | -09  | 721,847 | 459,538 | 263,152 | 841034 | REPAIRS TO FENDER PILES C   |                                 |
| 23714   | -03  | 96,868  | 7,192   | 87,669  | 850137 | RACQUETBALL COURT ADDITOP   |                                 |
| 23725   | -05  | 232,715 | 5,233-  | 239,003 | 850731 | FLEET MOORINGS M            |                                 |
| 23814   |      | 169,703 |         | 169,703 | 851231 | NFHD IMPROV PROJ CAPEHARTA  |                                 |
| 24400   | -04  | 15,133  | 2,254   | 12,879  | 841132 | EXHAUST VENT SYS B-177 T    |                                 |
| 24401   | -02  | 68,031  | 3,289-  | 71,303  | 850314 | EXHAUST VENTILATION SYS B   |                                 |
| 24402   | -04  | 37,351  | 3,551   | 29,803  | 850329 | EXHAUST VENTILATION SYS G   |                                 |
| 24403   | -03  | 75,293  | 979-    | 76,289  | 860429 | EXHAUST VENT SYS B-D 2J M   |                                 |
| 24404   | -10  | 375,585 | 13,597  | 359,989 | 860530 | 543B ECH VENT SYST H        |                                 |
| 24465   | -03  | 132,905 | 21,435  | 111,403 | 850719 | EXHAUST VENT SYS B-D 121 M  |                                 |
| 24466   | -03  | 399,336 | 69,400  | 349,636 | 850236 | RPR WATER STOR. TANKS S     |                                 |
| 24467   | -01  | 62,979  | 6,020   | 56,959  | 860123 | HEATING: OPRS BLDG-57 G     |                                 |
| 24472   | -05  | 237,145 | 21,145  | 216,003 | 841218 | POOF REPAIRS BLDG 74 D      |                                 |
| 24483   | -03  | 688,075 | 4,575   | 693,403 | 851331 | WINDOW RPL 34121 D          |                                 |
| 24485   | -01  | 120,029 | 1,035   | 119,946 | 841235 | RP. CARCC DRG RLDG W83 N    |                                 |
| 24486   | -02  | 272,959 | 5,516-  | 278,473 | 860517 | REPLACE/REPAIR DOORS N      |                                 |
| 24491   | -05  | 771,538 | 1,574   | 202,256 | 221231 | REPLC 3 FIRE PUMPS BLDG 23C |                                 |
| 24510   | -01  | 167,825 | 10,125  | 448,122 | 850415 | ROOF REPL BLDG 57 V         |                                 |
| 24511   | -01  | 163,013 | 3,400   | 157,703 | 860115 | RP. DRAINAGE PUMPS 3-733 T  |                                 |
| 24514   | -06  | 313,175 | 33,575  | 156,613 | 851230 | BLDG 23 TOILET FACILITIESA  |                                 |
| 24532   |      | 186,100 |         | 279,600 | 841127 | OPRS B-DG 75 A              |                                 |
| 24537   |      | 82,082  |         | 185,100 | 830918 | DRYDOCK 465 O               |                                 |
| 24555   | -02  | 178,743 | 1,387   | 83,695  | 850719 | 23B INS SHP FWTP DEMIN H    |                                 |
|         |      |         |         | 178,743 | 850313 | ROOF REPAIRS, BLDG. 77 U    |                                 |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

17 RUN DATE: 07/05/83

| JYJ3U | CCDO: | DESCRIPTION                | BOJ    | AWARD AMOUNT | CURPRI-AMWD | MOD AMT | CURPRI    | LAST MOD NBR |
|-------|-------|----------------------------|--------|--------------|-------------|---------|-----------|--------------|
| 31582 |       | INSTL BATTERY SHOP         | 950132 | 42,583       |             |         | 42,583    |              |
| 31584 |       | TE-EPH SYSTEM INSTA_L      | 850333 | 55,474       |             |         | 55,474    |              |
| 31594 |       | SURETY TAKEOVER AGREEMENT  | 830930 | 113,457      |             |         | 113,457   |              |
| 31597 |       | LANDSCAPING TRIDENT PARK   | 950512 | 195,895      |             |         | 194,791   | -01          |
| 31666 |       | ERECT 165-TON DERRICK      | 870328 | 3,359,503    |             | 4,137-  | 3,513,713 | -25          |
| 31743 |       | 1ST LIVAC CRNE CHINA L&E   | 851131 | 382,463      |             | 12,314  | 396,777   | -06          |
| 31705 |       | REPL CHLORINATORS_FT AD H  | 831125 | 13,437       |             |         | 10,437    |              |
| 31713 |       | REPLACE FENCE              | 950732 | 224,641      |             |         | 251,468   | -03          |
| 31714 |       | REPAIRS & ALTS BLDG 117 M  | 850210 | 593,275      |             |         | 669,139   | -05          |
| 31752 |       | RENOVATIONS, BLDG 13       | 940934 | 583,215      |             |         | 635,478   | -07          |
| 31760 |       | RPRS TO O/H DOORS 3 117J M | 851230 | 32,452       |             |         | 34,159    | -01          |
| 31761 |       | NEW BRIDGE CRANE B1171     | 870417 | 59,357       |             |         | 61,344    | -01          |
| 31770 |       | RPRS TO FEEDER CABLE       | 840320 | 79,285       |             |         | 79,285    | -01          |
| 31781 |       | INT & EXT PAINTING         | 840323 | 25,000       |             | 9-      | 24,992    | -02          |
| 31783 |       | CONTR - IMPROVEMENTS HETCO | 840321 | 14,823       |             | 3,957   | 15,577    | -02          |
| 31789 |       | REPLACE WINDOWS MAHAN 33 C | 860912 | 81,705       |             | 535     | 82,311    | -02          |
| 31799 |       | EMERGENCY ALARMS BLDG 178T | 890121 | 39,000       |             | 398     | 38,398    | -03          |
| 31820 |       | B.237 PLAN VAULT ADDITIONJ | 860537 | 65,600       |             | 5,411   | 73,311    | -03          |
| 31823 |       | PLATEYARD CRANE STRJC      | 831216 | 193,900      |             |         | 201,449   | -03          |
| 31827 |       | PUMPH_L NO. 1 ALTS         | 850232 | 97,728       |             | 55,400  | 153,128   | -03          |
| 31831 |       | PEHAB BARGE BOILER         | 840416 | 898,025      |             | 219,315 | 1,117,040 | -03          |
| 31834 |       | RETUBE SUPERHTR BOILER 5   | 841310 | 69,254       |             | 31,332  | 100,385   | -01          |
| 31870 |       | RADIATION PROTECTIOV       | 871211 | 163,400      |             | 4,152   | 172,552   | -02          |
| 31871 |       | CLIM SYS VAULT BLDG 239 B  | 941315 | 12,200       |             | 5,512   | 17,712    | -01          |
| 31880 |       | ROOF REPLACEMENTS          | 960117 | 165,300      |             | 5,235-  | 138,762   | -03          |
| 32016 |       | FREIGHT ELEV RPLC, 3.42 S  | 850433 | 79,300       |             | 1,133   | 79,100    | -02          |
| 32018 |       | RENOVATE MEV'S RESTROOM C  | 850313 | 23,900       |             |         | 25,800    | -09          |
| 32022 |       | REPL ROOF CRIB             | 860537 | 125,000      |             | 3,735   | 128,905   | -04          |
| 32023 |       | 9.39 TEST CRIB             | 850322 | 29,798       |             | 2,537   | 32,635    | -04          |
| 32047 |       | EGRESS/ALARM DEFICIENCIESJ | 871315 | 43,400       |             | 4,159   | 51,569    | -02          |
| 32049 |       | INSTAL - GUIDES/STRESS     | 831315 | 67,490       |             | 6,379   | 73,569    | -01          |
| 32052 |       | REPL ROOF VAR BLDGS        | 861210 | 249,520      |             | 1,133   | 247,720   | -03          |
| 32059 |       | RIP RAP REPAIR             | 841120 | 139,795      |             | 127,850 | 267,555   | -04          |
| 32099 |       | SANDBLAST & PAINT CRANE    | 831311 | 12,595       |             | 9,579   | 24,173    | -01          |
| 32064 |       | LANDSCAPE CONTRACT         | 830313 | 17,203       |             |         | 17,203    | -01          |
| 32079 |       | RELINE 74 BATHUBS          | 831217 | 22,750       |             |         | 28,395    | -01          |
| 32083 |       | INSTAL IP-3 TRAINER        | 841310 | 105,813      |             | 5,545   | 105,813   | -01          |
| 32086 |       | RPR EXTERIOR DOORS         | 861215 | 14,100       |             |         | 14,100    | -02          |
| 32086 |       | SWITCH GEAR                | 850514 | 67,929       |             | 67,150  | 115,079   | -01          |
| 32086 |       | MISC EXT PAINTING          | 840517 | 67,562       |             |         | 67,562    | -01          |
| 32086 |       | RP - WINDOWS BLDG 1        | 850132 | 42,329       |             |         | 42,329    | -01          |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 90D IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/98

16

JUN30

DOLLAR RANGE OF AWARD (\$300) K

| DDCUC | DESCRIPTION                 | BOB      | AWARD AMOUNT | MOD AMT   | CURPRI    | LAST MOD NBR |
|-------|-----------------------------|----------|--------------|-----------|-----------|--------------|
| 00274 | RPR ROOF/DRAINS PLSS 2      | E 650718 | 491,000      | 7,000     | 500,000   | -01          |
| 00277 | ALERT FORCE BLDG ADTN       | P 860910 | 377,800      | 536-      | 377,266   | -05          |
| 00278 | DIVING HALL, PEASE AFB      | J 840514 | 822,963      | 33,554    | 861,532   | -04          |
| 00280 | ALTER 3YM                   | S 831122 | 145,400      | 4,799     | 151,199   | -04          |
| 00281 | HOSP FIRE PROT PH II        | B 641210 | 549,900      | 60,315    | 610,215   | -03          |
| 00285 | FIELD HOUSE                 | G 890527 | 3,803,600    | 23,352    | 3,836,952 | -07          |
| 00287 | WATER DIST LINE             | Y 850815 | 293,750      |           | 298,750   |              |
| 00290 | PLAYING COURTS MADC         | H 841029 | 73,435       | 2,018     | 75,453    | -02          |
| 00293 | GLASS BLOCK REPLACEMENT     | M 840913 | 135,000      | 3,373     | 138,373   | -02          |
| 00294 | MECHANICAL REPAIRS          | C 840210 | 23,375       | 1,879     | 25,255    | -03          |
| 00299 | ANTENNA (P.D.)              | M 850920 | 135,800      | 4,709     | 140,509   | -03          |
| 00305 | FAMILY SERVICES CENTER      | S 871002 | 669,787      | 13,593    | 683,385   | -05          |
| 00309 | RETRO FIT OF BLDG 73        | M 870611 | 779,000      | 11,205    | 790,205   | -02          |
| 00351 | WHD-E SITE REPAIRS          | T 861202 | 2,649,000    | 1,000,159 | 3,653,169 | -06          |
| 00354 | WR4347                      | F 850123 | 78,402       |           | 78,402    | -03          |
| 00392 | H359A71REDUCE-NOISE-LEVEL-R | R 870923 | 227,000      | 2,564-    | 224,436   | -02          |
| 00396 |                             | F 850224 | 199,053      | 2,344     | 201,397   | -05          |
| 00399 | MAINT OF TAXIWAYS           | S 841101 | 180,268      |           | 180,268   |              |
| 00400 | MAINT OF AIRCRAFT PARKINGS  | S 841129 | 103,464      | 34,000    | 137,464   | -03          |
| 00503 | AIRCRAFT MINT. FACILITY     | S 850423 | 263,158      | 4,500     | 267,658   | -03          |
| 00512 | UEPH UPGRADE                | B 870118 | 24,295       |           | 24,295    | -06          |
| 00513 | CHILD CARE                  | S 861103 | 1,089,000    | 35,507    | 1,124,507 | -11          |
| 00515 | PARKING APRON REPAIR        | S 860930 | 63,314       | 19,333    | 83,152    | -01          |
| 00516 | RECONSTRUCT RUNWAY          | H 660110 | 9,333,272    | 201,702   | 9,534,974 | -23          |
| 00520 | AWO SURVEILLANCE FACILITY-W | H 871112 | 3,200,000    | 47,211    | 3,247,211 | -05          |
| 00523 | SQJADRV OPERATIONS          | B 860912 | 1,515,000    | 71,669    | 1,587,669 | -09          |
| 00529 | UEPH                        | S 860422 | 5,591,300    | 295,157   | 5,886,467 | -25          |
| 00530 | REPAIRS/OVRLAY TKWY         | R 850323 | 745,123      | 65,402    | 811,525   | -03          |
| 00531 | RES 16 17 JUTS              | L 851129 | 213,000      | 25,321    | 238,321   | -02          |
| 00534 | FAM HSS RPS-FORREST PF,ILK  | S 851107 | 195,789      | 2,110     | 199,899   | -02          |
| 00535 | H01-2-3-S3 COM 16           | M 851201 | 243,700      | 13,157    | 256,867   | -01          |
| 00536 | H01-2-33 REDCOM 13          | M 860513 | 499,872      | 32,723    | 532,595   | -02          |
| 00535 | FAM HSS RPS-WATERLOO,IA M   | S 850715 | 281,781      | 23,736    | 305,515   | -01          |
| 00536 | CATHODIC PROTECTION         | M 861009 | 243,300      | 53,494    | 301,794   | -06          |
| 00539 | EMERGENCY CONSERV IMPS      | S 850301 | 145,010      | 4,729     | 149,739   | -01          |
| 00542 | REPAIR RUNWAY 17/33         | M 870707 | 3,109,355    | 179,555   | 3,289,322 | -04          |
| 00545 | FIRE RESCUE STATION         | B 870725 | 1,616,000    | 27,100    | 1,643,100 | -04          |
| 00606 | ROOF REPAIRS HGR #1         | T 850507 | 340,250      | 600-      | 339,600   | -02          |
| 00609 | RESERVE CTR ADTN            | A 870512 | 446,895      | 55,254    | 502,159   | -10          |
| 00516 | WEATHERZTH/VAP BLDSS        | M 851028 | 77,800       |           | 77,800    | -01          |
| 00600 | POWER FACTOR CORRECTION C   | C 851106 | 35,500       |           | 35,500    |              |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| 15    | RUN DATE:                   | 07/05/88 | DOL-AR     | RANGE OF AWARD (\$000) X | MOD AMT      | CURPRI     | LAST    |
|-------|-----------------------------|----------|------------|--------------------------|--------------|------------|---------|
| 1730  | DESCRIPTION                 | 503      | AWARD      | AMOUNT                   | CUSPRI-AWARD | MOD NBR    | MOD NBR |
| 1600: |                             |          |            |                          |              |            |         |
| 0052  | REPLACE BOILERS             | T        | 125,251    | 14,458                   | 14,458       | 14,719     | -04     |
| 0060  | REPLACE BLDG 2048           | P        | 102,461    | 14,353                   | 14,353       | 115,514    | -02     |
| 0064  | ELF TRANSMITTER FAC         | B        | 5,840,929  | 73,937                   | 73,937       | 5,914,895  | -12     |
| 0077  | RECRUIT PROC BLDG           | M        | 8,154,240  | 303,355                  | 303,355      | 8,457,595  | -26     |
| 0011  | WATER POLLUTION ABATE       | F        | 287,151    | 7,315                    | 7,315        | 294,465    | -03     |
| 0013  | INTERGR MATL HANDLVG COMPA  |          | 13,451,000 | 512,727                  | 512,727      | 13,963,727 | -25     |
| 0017  | REPR REPLC WATER SOFTNRS    | T        | 1,026,395  | 50,125                   | 50,125       | 966,271    | -03     |
| 0021  | TRANSIT SHED                | P        | 2,149,770  | 75,471                   | 75,471       | 2,226,241  | -10     |
| 0031  | MOBILE WINE ASSEMBLY FAC    | G        | 1,223,641  | 5,134                    | 5,134        | 1,217,507  | -09     |
| 0032  | CAD SYSTEM FACILITY         | M        | 189,578    | 9,751                    | 9,751        | 199,329    | -05     |
| 0034  | REPR CRANE TRCKAGE DD 3     | R        | 1,163,500  | 153,337                  | 153,337      | 1,321,807  | -15     |
| 0040  | RPLC DOORS BLDG 974         | H        | 75,717     | 23,325                   | 23,325       | 100,542    | -05     |
| 0041  | RPR CEILING BLDG 75-JRD     | E        | 50,247     | 24,939                   | 24,939       | 75,185     | -04     |
| 0044  | RPR SUBSTRUCTURE PIER 2     | A        | 1,390,243  | 240,512                  | 240,512      | 1,630,755  | -05     |
| 0060  | DIESEL ENG DR TRAINER       | B        | 783,685    | 180,245                  | 180,245      | 963,930    | -15     |
| 0068  | REPLAC AIR/STEAM PIPE DDR   |          | 1,172,000  | 28,355                   | 28,355       | 1,200,355  | -08     |
| 0069  | COMPRESS AIR PIPE SUPPRD    |          | 1,429,021  | 79,130                   | 79,130       | 1,508,151  | -05     |
| 0100  | REPLACE VALVES              | P        | 83,494     | 83,494                   | 83,494       | 83,494     | -07     |
| 0107  | WAYS TO PIER #11 SYSTEM W   |          | 24,660     | 24,660                   | 24,660       | 24,660     | -07     |
| 0109  | RPS TO PIER #2 & #4ARF      | R        | 587,000    | 587,000                  | 587,000      | 587,000    | -03     |
| 0113  | RPR/ALTER BLDG 5            | T        | 374,000    | 33,352                   | 33,352       | 407,352    | -03     |
| 0117  | RENOVATE WAREHOUSE          | E        | 49,151     | 595                      | 595          | 48,555     | -03     |
| 0118  | RP2/ALTER BLDG 600          | D        | 1,389,439  | 245,128                  | 245,128      | 1,634,567  | -09     |
| 0152  | RENOVATE 2ND FL. B--#79     | G        | 338,510    | 15,254                   | 15,254       | 353,764    | -04     |
| 0155  | SOFTBALL FIELD LIGHTS       | P        | 545,645    | 60,712                   | 60,712       | 606,357    | -06     |
| 0159  | ECS IN BEAR METROLOGY       | G        | 126,300    | 378                      | 378          | 127,678    | -02     |
| 0170  | FIRE PROTECT SYS ROOF TRLD  | S        | 124,619    | 8,317                    | 8,317        | 132,936    | -06     |
| 0185  | DEMO BLDG 599 NAVSTA        | M        | 45,000     | 5,510                    | 5,510        | 50,510     | -03     |
| 0186  | REPLC CR TRANSFR PIER 15 S  | M        | 985,000    | 259,325                  | 259,325      | 1,244,325  | -10     |
| 0190  | EVACUATION FIRE ALARM SYSD  |          | 171,117    | 828                      | 828          | 171,945    | -02     |
| 0191  | RPR AUTO-HOBBY SHOP         | U        | 14,892     | 14,892                   | 14,892       | 14,892     | -01     |
| 0252  | REPAIR TRESTL SECT T1-T22 P |          | 63,000     | 63,000                   | 63,000       | 69,000     | -03     |
| 0253  | REPAIRS PIER-TRESTLES #1A   |          | 1,180,213  | 235,234                  | 235,234      | 1,417,147  | -08     |
| 0250  | SPECIAL PROJECT RC27-83 A   |          | 1,295,590  | 43,745                   | 43,745       | 1,339,335  | -08     |
| 0200  | UPR SEM/REV/ADMIN/ENTRVED   |          | 1,049,000  | 23,250                   | 23,250       | 1,072,250  | -15     |
| 0251  | ALM IV                      | M        | 222,370    | 23,383                   | 23,383       | 245,753    | -09     |
| 0262  | ALT RES FRCS OPS & TRNS S   |          | 969,070    | 3,284                    | 3,284        | 972,354    | -05     |
| 0264  | QUAYWALL REPRS              | S        | 367,595    | 34,091                   | 34,091       | 401,686    | -03     |
| 0260  | STM PLT IMPS                | D        | 3,769,495  | 206,321                  | 206,321      | 3,975,815  | -13     |
| 0272  | ROOF RPS BLDG 1801 C00 B    |          | 733,951    | 55,714                   | 55,714       | 789,665    | -02     |
|       |                             |          | 119,790    | 7,925                    | 7,925        | 127,715    | -01     |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 800 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| 14     | RUN DATE:                   | 07/05/88 | DOLLAR RANGE OF AWARD (\$000) K | AWARD AMOUNT         | MOD AMT CUSPRI-AWARD | CUSPRI       | LAST MOD VBR |
|--------|-----------------------------|----------|---------------------------------|----------------------|----------------------|--------------|--------------|
| 14     | JUN88                       |          |                                 |                      |                      |              |              |
| 80000: | DESCRIPTION                 | 800      | AWARD AMOUNT                    | MOD AMT CUSPRI-AWARD | CUSPRI               | LAST MOD VBR |              |
| 24506  | ROOF REPAIRS BLDG 541 A     | 850630   | 745,000                         | 73,179               | 819,179              | -06          |              |
| 24538  | RPL AIR DRYERS BLD 22/23 H  | 960614   | 383,989                         |                      | 388,989              | -08          |              |
| 24542  | OVERHAUL OF CRANE A-75 U    | 860616   | 395,320                         | 33,572               | 429,892              | -12          |              |
| 24550  | BLDG 13274 ROOF REPAIR S    | 850206   | 405,000                         | 55,151-              | 381,739              |              |              |
| 24570  | MISC. EXTERIOR PAINTING B   | 830317   | 381,739                         |                      | 381,739              |              |              |
| 24576  | REWV ASBEST REPLACE INSJLAP | 830630   | 617,862                         | 151,739              | 617,862              | -05          |              |
| 24583  | FOUNDATION SAND SYS BL 20M  | 841124   | 429,465                         | 300-                 | 580,255              | -03          |              |
| 24589  | FIRE DAMAGE REPAIR          | 840112   | 10,500                          | 4,275                | 10,200               | -02          |              |
| 24600  | INT. REHAB. VAR. BLDGS T    | 840306   | 163,054                         |                      | 167,329              | -02          |              |
| 24591  | REPLACE AIR DRYERS 3-D 520H | 860331   | 388,989                         |                      | 388,989              |              |              |
| 24571  | INTERACTIVE GRAPHICS F-1S   | 820728   | 129,500                         | 1,450                | 130,950              | -01          |              |
| 24525  | ALT/RRPS. TO DNIL CLINIC B  | 940126   | 112,225                         | 1,397                | 114,113              | -03          |              |
| 24525  | POLLUTION ABATEMENT PROJ. W | 870514   | 124,421                         | 11,114               | 135,535              | -05          |              |
| 24579  | ALT REPR CURBS, SIDEWALKS   | 821116   | 19,990                          | 561-                 | 19,429               | -04          |              |
| 24575  | INSTAL. HP AIR COMPRESSOR D | 830323   | 59,285                          | 500-                 | 59,485               | -01          |              |
| 24515  | RE300F A                    | 821112   | 781,262                         | 5,708                | 787,970              | -02          |              |
| 24564  | RPR ROOF BLDG 405 S         | 830914   | 182,731                         |                      | 182,731              | -01          |              |
| 24540  | ASBESTOS REM & RPL INSJLT   | 840516   | 71,405                          |                      | 71,405               | -03          |              |
| 24549  | INSTLL COMBUS CONTR. SYSTS  | 860519   | 375,000                         | 53,784               | 439,784              |              |              |
| 24541  | REAR EAST 1ST AR B2-1 FLR   | 821122   | 19,215                          |                      | 19,215               | -11          |              |
| 24545  | BOILER RM 3 REPL BJLL #1 H  | 860520   | 429,978                         | 37,591               | 465,569              | -03          |              |
| 24545  | RECVATE 00 DIRECTORATE R    | 210,110  | 210,110                         | 219                  | 210,329              | -02          |              |
| 24549  | REPR GALLEY L               | 940320   | 109,500                         | 45,179               | 154,679              | -02          |              |
| 24563  | CEILING & LITE PAY 3-25 S   | 830325   | 24,983                          | 2,347                | 27,330               | -02          |              |
| 24581  | REHAB DISC-5 LEGAL OFFICE   | 830117   | 12,550                          | 759                  | 13,319               | -02          |              |
| 24583  | COMPUTER PAR MONITOR-B2 R   | 841312   | 19,303                          | 2,302                | 22,105               | -04          |              |
| 24590  | RK/ALT TO VAR. BIT. RDS C   | 850513   | 319,770                         | 50,525               | 370,295              | -03          |              |
| 24596  | REPL HSH PRESS STM BOILER D | 851104   | 1,137,523                       | 42,793               | 1,180,316            | -09          |              |
| 24590  | RPR WOOD WNDW SASH 3-12J M  | 650428   | 56,000                          | 14,304               | 70,304               | -04          |              |
| 24591  | FIRE PROTECTION WATER LINK  | 850331   | 190,200                         | 159                  | 190,359              | -01          |              |
| 24592  | ALTER BLDG 9 TRANS EQUIP P  | 850732   | 95,505                          | 10,940               | 106,445              | -06          |              |
| 24539  | INSTL STEAM TRENCH COVERS   | 870311   | 55,200                          | 2,370                | 58,270               | -02          |              |
| 24547  | SPILL CLEANUP P             | 820522   | 12,977                          | 2,743-               | 13,136               | -02          |              |
| 24517  | LEASING OF VINE PANEL VAMH  | 850231   | 64,652                          | 65,135               | 110,587              | -05          |              |
| 24518  | INSTALLING WATERMAIN TIE R  | 840730   | 93,319                          | 518-                 | 97,500               | -01          |              |
| 24529  | REPLACE GCLERS A            | 841310   | 320,557                         | 14,725               | 335,282              | -04          |              |
| 24544  | UTILITY LINES S             | 850508   | 52,838                          | 25,991               | 79,329               | -02          |              |
| 24505  | VENTILATE TEST LAB 3355 D   | 541319   | 37,710                          | 1,353                | 39,063               | -02          |              |
| 24714  | REPR ROOF DRAINS 3-DG. 4D   | 830331   | 13,295                          |                      | 13,295               | -09          |              |
| 24714  | NEW STRUCTURAL SLAB RL 1 N  | 861308   | 392,131                         | 25,552               | 418,793              | -02          |              |
| 24738  | ALTS TO FROSTHETICS LAB P   | 860322   | 193,000                         | 5,359                | 205,069              | -02          |              |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

13 RUN DATE: 07/05/83

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DOL-AR RANGE OF AWARD (\$300) K

|       | DESCRIPTION                 | 900    | AWARD<br>AMOUNT | CUPRI-AWARD | MOD AMT | CUPRI     | LAST<br>MOD NBR |
|-------|-----------------------------|--------|-----------------|-------------|---------|-----------|-----------------|
| 23249 | INSTAL- SMOKE DETECTORS A   | 860333 | 41,670          |             | 3,674   | 49,264    | -01             |
| 23251 | INSTAL- SPRINKLERS A        | 860324 | 186,000         |             | 6,937   | 190,287   | -03             |
| 23266 | REPLC STM CONDENSATE LINED  | 850731 | 389,500         |             | 5,300   | 396,300   | -02             |
| 23263 | WAREHOSE CONVSN BLDG-5 G    | 850517 | 775,750         |             | 39,658  | 815,408   | -01             |
| 23274 | NAVY EXCHANGE COMPLEX A     | 850812 | 2,796,000       |             | 157,506 | 2,951,606 | -09             |
| 23468 | FUEL OIL STRG TANK #4 K     | 861312 | 612,025         |             | 14,574  | 626,599   | -04             |
| 23450 | CRANES BLDG- 1000 A         | 860106 | 1,253,973       |             | 219,576 | 1,478,549 | -23             |
| 23453 | TWO CRANES FOR CHINA LAKEH  | 851131 | 3,339,365       |             | 219,041 | 3,549,406 | -23             |
| 23462 | "A" PACKAGE H               | 860115 | 747,819         |             | 306,050 | 1,051,869 | -21             |
| 23463 | ONE 120 TON OET CRANE E     | 860331 | 1,599,919       |             | 59,591  | 1,659,499 | -06             |
| 23464 | CRRCT DEF 93/10 TN DET CRF  | 860530 | 32,650          |             | 30,450  | 62,100    | -02             |
| 23468 | CAPACITOP BANK SUB 3 C      | 830330 | 62,179          |             | 62,179  | 124,358   | -01             |
| 23471 | ALTS PHOTO LAB BLDG 1A P    | 831222 | 197,000         |             | 15,181  | 213,181   | -07             |
| 23475 | RPRS BJS STRUCTURES SUB 70  | 860326 | 14,950          |             | 14,950  | 29,900    | -06             |
| 23480 | RENOVATION OF THEATER 322J  | 860124 | 140,625         |             | 11,781  | 152,406   | -02             |
| 23491 | 9298/75 TANK INSTAL./MODS B | 860918 | 73,800          |             | 2,580   | 76,380    | -02             |
| 23492 | U03 PARKING LOT B           | 820923 | 22,970          |             | 22,970  | 45,940    | -01             |
| 23493 | DOOR REPLACE B 175/72/42 N  | 850123 | 161,524         |             | 59,528  | 221,052   | -02             |
| 23495 | B. 16 CAD FACILITY S        | 850210 | 109,000         |             | 75,395  | 184,395   | -08             |
| 23497 | B. 248 RPR TO CPO C-UB J    | 850329 | 173,000         |             | 7,881   | 180,881   | -04             |
| 23498 | B 170 OFFICE RPR/ALT S      | 850224 | 211,000         |             | 50,152  | 261,152   | -07             |
| 23499 | CRANE RAIL RPL # 6J S       | 850110 | 63,672          |             | 63,672  | 127,344   | -01             |
| 23499 | RENOVS BLDGS H-1/95 J       | 860929 | 28,950          |             | 2,427   | 31,377    | -01             |
| 23505 | MISC E-ELECTRICAL WORK A    | 851131 | 51,013          |             | 51,013  | 102,026   | -02             |
| 23505 | RPR LOW RAY ROOF B. 92 O    | 850104 | 285,900         |             | 5,453   | 292,353   | -02             |
| 23507 | GUARD TOWER S               | 820915 | 22,005          |             | 22,005  | 44,010    | -01             |
| 23507 | MANHOLE REHAB 2 C           | 950313 | 68,830          |             | 1,311-  | 70,141    | -01             |
| 23507 | REPAIR TO BLDG 12 P         | 860107 | 599,490         |             | 67,519  | 667,009   | -01             |
| 23508 | REPAIR STORM DRAINS R/A H   | 841130 | 448,000         |             | 171,392 | 619,392   | -07             |
| 23508 | REPL FURNACES CAPEHART HSJ  | 860931 | 375,312         |             | 40,000  | 415,312   | -01             |
| 23508 | REPAIR TO BLDG 2U D         | 860528 | 803,140         |             | 71,225  | 879,365   | -06             |
| 23508 | ADDN TO P/A BLDG 11         | 831331 | 26,370          |             | 26,370  | 52,740    | -02             |
| 23508 | REPAIRS/ALTS, LAB 3-1 C     | 860716 | 178,610         |             | 3,379   | 182,388   | -02             |
| 23508 | INSULATE ATTIC BLDG- 633 I  | 850722 | 31,980          |             | 31,980  | 63,960    | -02             |
| 23508 | WELD S40P, GRIFFISS AFB P   | 860425 | 119,350         |             | 1,250   | 120,600   | -02             |
| 23509 | RPR TIE FLOORINGS           | 831330 | 25,000          |             | 25,000  | 50,000    | -01             |
| 23509 | CENTRA. FIRE ALARM SYSTEMD  | 860526 | 166,759         |             | 31,030  | 195,839   | -02             |
| 23509 | C-3 TRAINING ROOM D         | 861108 | 19,650          |             | 19,650  | 39,300    | -05             |
| 23509 | REHAB 34-B X                | 850333 | 32,631          |             | 5,715   | 38,346    | -05             |
| 23512 | RENOVAT BLDGS C-11 & R-11A  | 831214 | 449,000         |             | 5,582   | 454,582   | -08             |
| 23512 | ALTERATION TO BLDG C-1 P    | 850730 | 80,900          |             | 100     | 81,000    | -02             |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE 300 IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/88

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OCDDU:

DOLLAR RANGE OF AWARD (\$3000) K

| 900   | AWARD AMOUNT               | CURPRI-AMOUNT | MOD AMT   | CURPRI     | LAST MOD NBR |
|-------|----------------------------|---------------|-----------|------------|--------------|
| 20140 | CONVL ROAD/FENCE           | 435,289       | 123,790   | 557,069    | -04          |
| 20145 | UPGRADE AIRFIELD PAVEMENTV | 2,879,070     | 229,258   | 3,108,328  | -08          |
| 20147 | ELEC-ECTNS SHOP MOD        | 1,880,570     | 95,119    | 1,968,789  | -05          |
| 20151 | PIER STRUCT. REHAB.        | 265,800       | 157,030   | 430,830    | -09          |
| 20167 | RPR/OP-C JP-6-AVGAS FILTPK | 147,832       |           | 147,832    | -02          |
| 20183 | COMCTNS ELEC TRNG FAC      | 1,914,000     | 79,348    | 1,992,348  | -03          |
| 20184 | ADD 303 350 ATO MNT SHP    | 1,113,165     | 41,340    | 1,154,505  | -07          |
| 20187 | RPR BOILER                 | 84,290        | 4,519     | 88,809     | -03          |
| 20188 | RPR TO SOUTH SIDE PIER 2 S | 2,450,630     | 290,522   | 2,741,152  | -07          |
| 20192 | IMPROVE SEWER SYSTEM       | 64,195        | 1,925     | 66,122     | -02          |
| 20193 | CONSTR FAMILY SEVPC CNTR S | 157,000       |           | 157,000    | -04          |
| 20194 | PAVE PAVS POWER LINE       | 939,000       | 7,576     | 946,576    | -06          |
| 20195 | BOUNDARY SECURITY          | 572,725       | 3,750     | 576,475    | -02          |
| 20196 | INTERIOR PAINTING--WARFNCT | 15,000        | 50,000    | 65,000     | -02          |
| 20199 | PIER UTILITIES             | 2,450,000     | 175,559   | 2,625,559  | -11          |
| 20202 | WHOLE CENTER RPR PROGRAM B | 847,949       | 124,596   | 972,545    | -13          |
| 20208 | BLDS 4 & PS II             | 1,398,805     | 49,130    | 1,447,935  | -07          |
| 20209 | ALERT APRON IMPROVEMENTS S | 2,795,808     | 297,347   | 3,093,155  | -09          |
| 20210 | RPR/ALT STEAM HEAD 3LD 29N | 389,000       | 172,508   | 561,508    | -06          |
| 20218 | PHONE DCT FDR 780 JEPH W   | 178,000       | 3,250     | 174,750    | -01          |
| 20225 | INST DELUGE SYS            | 1,784,480     | 87,501    | 1,871,981  | -20          |
| 20228 | REFUEL VEHICLE MAINT. FACG | 735,900       | 3,909     | 739,809    | -05          |
| 20235 | VEHICLE MAINT. FACILITY S  | 5,637,459     | 523,558   | 6,261,017  | -34          |
| 20236 | MISCELL. RPS               | 15,775        | 438       | 15,183     | -02          |
| 20251 | ELEC-DISTR SYS IMPS        | 245,525       | 25,500    | 271,025    | -03          |
| 20256 | REPAIR ROADS               | 963,283       | 143,537   | 1,106,820  | -10          |
| 20257 | MAINT & REPAIR PROJECTS N  | 325,368       | 73,972    | 405,340    | -10          |
| 20260 | BLR FEED-COND POLISHER ADH | 565,535       | 42,121    | 607,657    | -07          |
| 20281 | EVALUATION FACILITY        | 28,073,000    | 1,313,977 | 29,086,977 | -42          |
| 20287 | IMPS TO CLUB-BLDG #506 W   | 295,214       | 595       | 295,809    | -03          |
| 20289 | REPAIR DAY CABE CENTER     | 135,000       | 15,330    | 151,330    | -03          |
| 20292 | REPR FIRE SFTY DIS-REPN A  | 197,000       | 155,372   | 41,108     | -02          |
| 20293 | H1544/J5MA-5, NOISE OPERAI | 34,525        | 5,745     | 43,272     | -03          |
| 20300 | OPERATIONS TRNG BLDG       | 39,950        | 950       | 39,900     | -06          |
| 20302 | RPR PUMPWELL FACILITIES U  | 603,335       | 79,433    | 682,768    | -08          |
| 20304 | REPR DD 3 PHASE V JF V H   | 755,989       | 55,802    | 833,791    | -08          |
| 20306 | RPR HEAT'G SYS 3LA 16/13 M | 464,359       | 11,200    | 475,559    | -03          |
| 20307 | RPR CAPSTANS DDW 4 3 5     | 2,442,000     | 7,528     | 2,449,528  | -02          |
| 20309 | RPR PORTIOW BL. #23        | 583,300       | 44,245    | 627,545    | -04          |
| 20320 | PROCDPE CHILLERS&ELEC CENT | 269,921       | 5         | 269,925    | -01          |
| 20334 | EXTER TRANSFORMER&IVTER    | 75,910        |           | 76,910     | -01          |

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CONSTRUCTION CONTRACTS GREATER THAN 10K  
 WHERE BDD IS PAST AND ACTUAL  
 SOURCE: CMS EXTRACT FILE

| 11      | 33JUN80 | PROCD00                     | 11  | 07/05/83     | DOLLAR RANGE OF AWARD (\$000) K | 303     | AWARD AMOUNT | CURPRI-AMRD  | MOD AMT | CURPRI | LAST MOD NBR |
|---------|---------|-----------------------------|-----|--------------|---------------------------------|---------|--------------|--------------|---------|--------|--------------|
| 33JUN80 | PROCD00 | DESCRIPTION                 | 303 | AWARD AMOUNT | CURPRI-AMRD                     | MOD AMT | CURPRI       | LAST MOD NBR |         |        |              |
| 314765  |         | REPRS SAGE PLANT B-DGS.     | M   | 122,500      | 6,000                           |         | 126,500      | -01          |         |        |              |
| 314773  |         | REPR HVAC 3-3 PMS II        | H   | 765,989      | 170,232                         |         | 936,221      | -06          |         |        |              |
| 314776  |         | REPAIR EXTERIOR BLDG #4     | M   | 365,300      | 15,467                          |         | 381,767      | -05          |         |        |              |
| 314779  |         | REPAIR AMHEX ROOF           | D   | 641130       | 153,639                         |         | 402,162      | -03          |         |        |              |
| 314814  |         | SMOKE DETECTOR PROTEUS DEM  |     | 11,400       | 91,377                          |         | 11,400       | -04          |         |        |              |
| 314819  |         | REPL DYNR/AUTO START B-R K  |     | 277,700      |                                 |         | 368,777      |              |         |        |              |
| 314850  |         | SGT DOWNER REPAIR           | C   | 53,350       |                                 |         | 53,350       |              |         |        |              |
| 314850  |         | ALT. 214 DIV. OFFICE        | R   | 41,374       | 7,375                           |         | 48,749       | -03          |         |        |              |
| 314903  |         | REP B475 RFR B473/4         | P   | 35,585       | 2,355                           |         | 37,940       | -02          |         |        |              |
| 314906  |         | RFR DOOR CONTROLS           | J   | 69,989       | 1,735                           |         | 71,724       | -01          |         |        |              |
| 314911  |         | REPRS HV AC CONDENSATE SYS  |     | 163,987      |                                 |         | 163,987      |              |         |        |              |
| 315225  |         | ALT/REP #123                | D   | 135,000      | 15,449                          |         | 136,000      | -02          |         |        |              |
| 315284  |         | MASINRY REPRS & OTHER EXTRE |     | 92,840       |                                 |         | 108,289      |              |         |        |              |
| 315384  |         | RFR TO FIRE PROTECTION      | K   | 69,200       |                                 |         | 69,200       | -01          |         |        |              |
| 315395  |         | WINDOW REPAIRS BLDG #123 P  | P   | 73,330       | 2,355                           |         | 76,185       | -01          |         |        |              |
| 315436  |         | CONVEYOR BRIDGE 9-2103211L  |     | 15,920       | 535                             |         | 16,920       | -01          |         |        |              |
| 315233  |         | INT/EXT MAINT PAINTING FHL  |     | 13,060       | 9,099                           |         | 13,595       | -01          |         |        |              |
| 315234  |         | K-RAY AFMK                  | F   | 114,900      | 9,950                           |         | 123,999      | -07          |         |        |              |
| 315540  |         | REPR A-TER RADAR PENTHSE H  | H   | 164,194      |                                 |         | 174,144      | -06          |         |        |              |
| 615999  |         | VP FAC EXPANSION            | G   | 45,677       |                                 |         | 45,677       |              |         |        |              |
| 315925  |         | RFR EAST DRIVEWAY 3-DG 16   |     | 43,800       |                                 |         | 43,800       | -03          |         |        |              |
| 315922  |         | RFR SILING 3189             | H   | 424,100      | 42,425                          |         | 466,525      | -03          |         |        |              |
| 315931  |         | RFR DOOR TRACKS             | W   | 42,875       |                                 |         | 42,875       | -02          |         |        |              |
| 315932  |         | CONSTRUCT SAN SEWER LINES I |     | 189,830      | 3,280                           |         | 193,110      | -03          |         |        |              |
| 315937  |         | RESIDIOUS CENTER            | G   | 142,979      | 55,500                          |         | 198,479      | -10          |         |        |              |
| 317130  |         | AIR COND/ALTER TO CM        | N   | 63,000       |                                 |         | 60,000       | -04          |         |        |              |
| 317350  |         | SEWAGE CONNECTION           | C   | 345,000      | 77,360                          |         | 422,360      | -01          |         |        |              |
| 320001  |         | UPGRADE INDUSTRIAL P-VT     | L   | 37,000       | 1,000                           |         | 38,000       | -04          |         |        |              |
| 320013  |         | CONSTR HEAD MMF COMPLEX     | L   | 70,771       |                                 |         | 70,771       | -01          |         |        |              |
| 320014  |         | RP - PCB TRANSFORMERS       | D   | 552,150      | 9,095                           |         | 560,245      | -05          |         |        |              |
| 320020  |         | VALT TO COMPTRMT A 60 58    |     | 5,123,000    | 224,668                         |         | 5,347,668    | -15          |         |        |              |
| 320025  |         | VAJTLIS MEMORIAL            | C   | 24,599       |                                 |         | 24,599       |              |         |        |              |
| 320045  |         | RFR PORTABLE WATER TANKS    | Z   | 24,555       | 722,549                         |         | 26,566       | -01          |         |        |              |
| 320060  |         | SOLAR MODIFICATIONS         | G   | 2,562,745    |                                 |         | 2,562,745    | -23          |         |        |              |
| 320065  |         | HOT WATER MAINS PEASE AFB   |     | 42,400       |                                 |         | 42,400       | -01          |         |        |              |
| 320102  |         | ANXK 3 SWITCH GR/SUBSTA     | M   | 172,972      | 19,527                          |         | 192,599      | -04          |         |        |              |
| 320103  |         | RPL SOLAR PLANT GENERATOR   |     | 862,500      | 29,631                          |         | 891,731      | -04          |         |        |              |
| 320121  |         | SIMF II                     | S   | 2,495,994    | 151,375                         |         | 2,647,370    | -09          |         |        |              |
| 320125  |         | CRUISE MISSILE SUPPORT      | U   | 369,413      |                                 |         | 368,419      | -09          |         |        |              |
| 320126  |         | RFR STATION ROADS           | M   | 2,463,665    | 33,959                          |         | 2,502,624    | -07          |         |        |              |
| 320130  |         | QUAYWALLS                   | W   |              |                                 |         |              |              |         |        |              |

PYDMDJF.STAFF1.CMT



APPENDIX G  
CONSTRUCTION FIRM FAILURES



CONTRACTORS  
ENGINEERS                      FACILITIES

| YEARS | General Contractors |                 | Sub Contractors |                 | Other Contractors |                 | Total Contractors |                 |
|-------|---------------------|-----------------|-----------------|-----------------|-------------------|-----------------|-------------------|-----------------|
|       | Number              | Liability \$000 | Number          | Liability \$000 | Number            | Liability \$000 | Number            | Liability \$000 |
| 1947  | 197                 | 5090            | 629             | 6049            | 84                | 2005            | 750               | 13144           |
| 1948  | 21                  | 2212            | 65              | 349             | 6                 | 399             | 92                | 2959            |
| 1951  | 332                 | 8209            | 689             | 14407           | 42                | 2009            | 1063              | 24625           |
| 1954  | 456                 | 25757           | 789             | 23707           | 55                | 3395            | 1300              | 32859           |
| 1955  | 440                 | 39327           | 690             | 24499           | 61                | 3667            | 1191              | 67493           |
| 1956  | 709                 | 64119           | 1020            | 47431           | 96                | 6286            | 1825              | 117836          |
| 1957  | 609                 | 54426           | 1176            | 36496           | 125               | 6421            | 1910              | 97343           |
| 1958  | 872                 | 62759           | 1169            | 41009           | 121               | 11951           | 2162              | 115116          |
| 1959  | 749                 | 66076           | 1199            | 42492           | 159               | 13216           | 2097              | 121600          |
| 1961  | 1020                | 110696          | 1419            | 74177           | 169               | 16996           | 2608              | 131769          |
| 1962  | 1056                | 94042           | 1520            | 76995           | 164               | 22079           | 2740              | 153116          |
| 1963  | 1009                | 133901          | 1499            | 61971           | 202               | 23264           | 2709              | 149136          |
| 1964  | 882                 | 140990          | 1367            | 66991           | 196               | 24044           | 2445              | 149985          |
| 1965  | 970                 | 177945          | 1275            | 71762           | 140               | 19997           | 2385              | 250000          |
| 1966  | 1000                | 199900          | 1009            | 78049           | 164               | 16099           | 2173              | 293991          |
| 1967  | 1046                | 225717          | 1006            | 80991           | 199               | 16099           | 2251              | 322707          |
| 1968  | 867                 | 233684          | 1040            | 71991           | 199               | 16099           | 2106              | 322707          |
| 1969  | 656                 | 136941          | 912             | 58207           | 111               | 13446           | 1679              | 209391          |
| 1970  | 626                 | 86726           | 861             | 56910           | 104               | 16991           | 1591              | 110469          |
| 1971  | 659                 | 132713          | 908             | 62919           | 109               | 17991           | 1676              | 177711          |
| 1972  | 609                 | 123075          | 697             | 51211           | 115               | 17991           | 1421              | 201696          |
| 1973  | 619                 | 91914           | 777             | 61900           | 89                | 13716           | 1485              | 122997          |
| 1974  | 634                 | 162927          | 816             | 109494          | 90                | 19994           | 1540              | 199991          |
| 1975  | 714                 | 367940          | 1000            | 129126          | 109               | 22629           | 1823              | 509976          |
| 1976  | 842                 | 461907          | 1200            | 142039          | 119               | 36919           | 2161              | 640945          |
| 1977  | 716                 | 261613          | 940             | 137045          | 114               | 30975           | 1770              | 429737          |
| 1978  | 609                 | 199907          | 764             | 299726          | 91                | 42199           | 1464              | 499920          |
| 1979  | 609                 | 145640          | 601             | 140999          | 66                | 42976           | 1276              | 309916          |
| 1979  | 607                 | 147297          | 667             | 132911          | 60                | 41623           | 1334              | 281321          |
| 1980  | 1071                | 334906          | 1164            | 330001          | 121               | 33995           | 2356              | 750196          |
| 1981  | 1471                | 450969          | 1697            | 399019          | 211               | 67497           | 3379              | 851790          |
| 1982  | 1877                | 619299          | 2642            | 599700          | 369               | 158309          | 4878              | 1174308         |
| 1983  | 1930                | 689770          | 3004            | 716510          | 410               | 240246          | 5344              | 1349994         |
| 1984  | 2474                | 771997          | 493             | 236016          | 3979              | 604991          | 6946              | 1661469         |
| 1985  | 2769                | 1266460         | 419             | 110901          | 3827              | 634199          | 7015              | 2019100         |
| 1986  | 2634                | 549299          | 449             | 194995          | 4029              | 699901          | 7112              | 1792625         |
| 1987  | 2496                | 1312011         | 396             | 199995          | 3644              | 779668          | 6736              | 2029110         |





APPENDIX H  
SBA and SCORE  
BUSINESS ASSISTANCE

|                                                                                                                                                                                                                                                                                                                                                                                                                                          | SECTION |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| COUNSELLING                                                                                                                                                                                                                                                                                                                                                                                                                              | A       |
| <b>Sometime Small Business Needs Help</b><br>Georgia SCORE/SBDC directory                                                                                                                                                                                                                                                                                                                                                                |         |
| TRAINING                                                                                                                                                                                                                                                                                                                                                                                                                                 | B       |
| Small Business Administration Spring 1988 Training<br>Schedule<br>April-July 1988 SCORE Seminars and Workshops<br><b>Small Business: The World is Your Market</b>                                                                                                                                                                                                                                                                        |         |
| PUBLICATION LISTS                                                                                                                                                                                                                                                                                                                                                                                                                        | C       |
| Business Development Booklets<br><b>Directory of Business Development Publications</b><br><b>Directory of Business Development Publications</b><br>Order Form                                                                                                                                                                                                                                                                            |         |
| SAMPLE PUBLICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                      | D       |
| <b>How to Operate a Small Business Legally</b><br>Georgia<br><b>Business Plan for Small Construction Firms</b><br><b>Should You Lease or Buy Equipment?</b><br><b>Selecting the Legal Structure for Your Firm</b><br><b>Feasibility Checklist for Starting a Small</b><br><b>Business</b><br><b>Analyze Your Records to Reduce Cost</b><br><b>Budgeting in a Small Service Firm</b><br><b>Breakeven Analysis: A Decision-Making Tool</b> |         |
| COUNSELLING NOTES                                                                                                                                                                                                                                                                                                                                                                                                                        | E       |
| Small Volume Home Building (#108)<br>Paint and Decorating Centers (#128)                                                                                                                                                                                                                                                                                                                                                                 |         |
| PROCUREMENT AUTOMATED SOURCE SYSTEM (PASS)                                                                                                                                                                                                                                                                                                                                                                                               | F       |
| PASS Information Booklet                                                                                                                                                                                                                                                                                                                                                                                                                 |         |



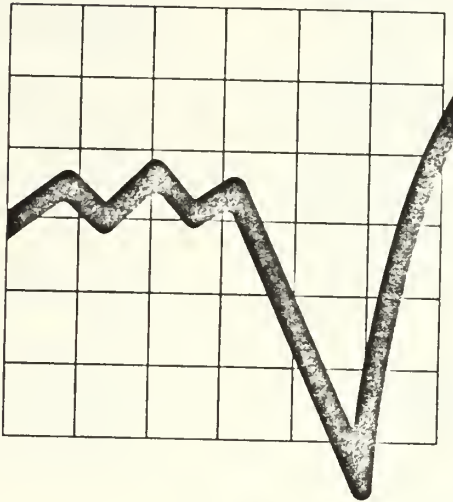
APPENDIX H

Section A

COUNSELLING



**SOMETIMES  
SMALL  
BUSINESS  
NEEDS  
HELP**



**CALL  
SCORE**



**Would you like to talk with someone who has had the same kinds of business problems you have — and who solved them successfully?**

**Would you like to talk to someone about starting a new business?**

**Would you like to get this valuable advice at absolutely no charge?**

That's what SCORE is all about. Free business counseling by men and women who have had successful business careers as company executives or owners of their own businesses.

They are willing to share their knowledge and experience at absolutely NO CHARGE.

And they are as close as your telephone. SCORE has counselors in all 50 states, Puerto Rico, Guam, the Virgin Islands and the District of Columbia.

**EXPERIENCE YOU  
CAN'T BUY —  
BUT IT'S FREE!**

Even if you were willing to pay for management counseling, it would be difficult to find the

specialized experience to match your particular problems.

But SCORE can fill your needs. SCORE exists only to provide free information and advice on practically every business.

From ladies ready-to-wear retailing to food services and restaurants,

From construction to electronics and computer technology,

From advertising and marketing to financial control,

From purchasing to . . .

Name it and there's a SCORE counselor who talks your language

It is important to organize and manage all the special skills of a business in a way that will make the business operate successfully—

And SCORE counselors have that management ability!

**SCORE  
COUNSELING—  
ONE PERSON OR  
A TEAM**

The counselor chosen to serve you has the experience that most closely parallels your needs. But no one is an expert in every type of business. So your SCORE counselor may call on other SCORE members for their special expertise.





Your counselor—or team—meets with you personally and as frequently as necessary. They analyze and define your problems. They help you find solutions. They keep checking with you to see how the solutions are functioning. The period of counseling may take as little as a week. Or a year. Whatever length of time needed.

All information learned about your business is CONFIDENTIAL. It is not revealed to anyone outside of SCORE.

## **A TRADITION OF EXCELLENCE**

Nationally, SCORE has helped thousands of small businesses iron out their problems. Many owe their success to the assistance received from SCORE.

Help for you is as near as your telephone. To learn how you can get personal counseling for your business, telephone or stop in at the SCORE office. There is no obligation.

Or, if you wish, you are welcome to attend any of the seminars and workshops SCORE periodically conducts. They cover major considerations for running a business. To find out when and where they are held, call SCORE.



# SCORE

Sponsored by U. S. Small Business Administration

## Service Corps of Retired Executives Active Corps of Executives (ACE)

\* \* \* \* \*

### FREE COUNSELING FOR SMALL BUSINESSES

\* \* \* \* \*

### WHAT IS SCORE?

SCORE IS THE SERVICE CORPS OF  
RETIRED EXECUTIVES.

SCORE IS A NONPROFIT ASSOCIATION  
PROVIDING FREE BUSINESS  
COUNSELING.

SCORE IS BRAINS, IDEAS, SKILL  
AND EXPERIENCE.

SCORE IS 10,000 RETIRED AND  
ACTIVE EXECUTIVES.

SCORE IS VOLUNTEERS READY TO  
SHARE THEIR SKILLS.

SCORE IS COUNSELING ON SMALL  
BUSINESS PROBLEMS.

SCORE HAS A BACKGROUND OF  
MORE THAN 20 YEARS OF  
SUCCESSFUL COUNSELING.

SCORE'S COUNSELING SERVICES  
ARE FREE.

### Georgia SCORE Chapters

- Atlanta ..... 1720 Peachtree Rd., N.W.  
Suite 600-A, North  
(404) 347-2441
- Albany ..... 235 Roosevelt Avenue  
(912) 888-7007
- Augusta ..... c/o Augusta SBDC, Augusta Colleg.  
1061 Katherine Street  
(404) 737-1792
- Brunswick .... No Street Address  
(912) 265-0620
- Columbus ..... Heritage Tower, Suite 105  
18 Ninth Street  
(404) 571-7357
- Dalton ..... Dalton-Whitfield Chamber  
of Commerce  
524 Holiday Avenue  
(404) 278-7373
- Gainesville .. Gainesville-Hall County  
Chamber of Commerce  
230 Sycamore Street  
(404) 532-6206
- Macon ..... Middle Georgia Area Planning  
and Development Commission  
600 Grand Building  
(912) 744-6160
- Savannah ..... Federal Bldg., Suite 8-B  
125 Bull Street  
(912) 944-4335
- Statesboro ... Federal Building, Rm. 225  
52 North Main Street  
(912) 489-8719

(over)



Georgia SBDC Directory



*A University System of Georgia Program*

**Do you know what the  
SMALL  
BUSINESS  
DEVELOPMENT  
CENTER  
can offer you?**

Georgia's 16 Small Business Development Centers offer free counseling to our state's small businesses. Established in 1977, the SBDC was designed to help you, the small business person.

We can provide you with information linking you with other businesses, industry and government.

Our counselors can provide you with information on:

- financial planning
- cash flow projections
- bookkeeping techniques
- sales techniques
- display and advertising
- marketing evaluation
- risk management
- organization structure
- inventory control
- employees & customers
- theft
- refinancing
- exporting
- starting a business

SBDCs are in partnership with the  
U.S. Small Business Administration.

(over)

Albany (912) 439-7232  
Albany Area Chamber of Commerce  
501 N. Slappey Boulevard

Athens (404) 542-7436  
University of Georgia, Chicopee Complex  
1180 East Broad Street

Atlanta (404) 651-3550  
Georgia State University  
1 Park Place South, Suite 1055

Augusta (404) 737-1790  
Augusta College, 1061 Katherine Street

Brunswick (912) 264-7343  
Brunswick Junior College, Altama at Fourth

Columbus (404) 571-7433  
Heritage Tower, 18 Ninth St., Suite 105

Dublin (912) 272-5546  
Dublin-Laurens County Chamber of Commerce  
1009 Bellevue Avenue

Gainesville (404) 536-7984  
Georgia Mountains Center  
1010 Ridge Road

Lawrenceville (404) 963-4902  
Gwinnett Technical School  
1250 Atkinson Road

Macon (912) 741-8023  
Greater Macon Chamber of Commerce

Marietta (404) 423-6450  
Kennesaw College

Milledgeville (912) 453-9311  
Milledgeville-Baldwin Co. Chamber of Commerce  
130 South Jefferson Street

Morrow (404) 961-3440  
Clayton State College

Rome (404) 295-6326  
Floyd Junior College

Savannah (912) 651-2533  
12 West 43rd Street

Statesboro (912) 681-5194  
Georgia Southern College

Valdosta (912) 247-8100  
Lowndes County Chamber of Commerce  
1604 N. Ashley

Warner Robins (912) 922-8585  
Warner Robins Chamber of Commerce  
1420 ...



APPENDIX H

Section B

TRAINING





SMALL BUSINESS ADMINISTRATION TRAINING SCHEDULE, SPRING QUARTER 1988

This is a schedule of small business training programs co-sponsored by the U.S. Small Business Administration. The program details are subject to change. Call to confirm listed information.

SCORE  
1720 Peachtree Road, NW  
Suite 600  
Atlanta, Georgia  
347-2442

PRE-BUSINESS WORKSHOPS-8:30AM-4:00PM (\$10.00 each)  
Tuesday, May 10, 1988 (Rm 162)  
Tuesday, June 14, 1988 (Rm 197-199)

(Free Parking for above workshops, compliments of the Beer Mug across the street)

SEMINARS - 7:00 - 9:30 PM (\$7.00 each)  
(Rm 197-199)  
MARKETING-A STRAIGHT FORWARD APPROACH

YOUR BUSINESS TAX PLANNING  
MONEY SOURCES FOR SMALL BUSINESS  
Monday, Apr. 25, 1988  
START-UP PLANS FOR SMALL BUSINESS  
Monday, Apr. 23, 1988  
INTRODUCTION TO COMPUTERS IN BUSINESS  
Monday, June 27, 1988

(Free parking at night at 1720 Peachtree Street. Please enter building 1st floor rear, double glass doors. You may also park across the street, compliments of the Beer Mug).

HOW TO APPLY FOR AN SBA LOAN-9:30-11:30AM (\$5.00 each)

Friday, May 6, 1988 - Room 197-199  
Friday, June 10, 1988 - 197-199

(Free parking, compliments of the Beer Mug across the street).

PLEASE NOTE: All courses provide special information for Veterans, Vietnam-Era Veterans and Handicapped Veterans. Facilities are available for the handicapped.

SBA MINORITY SMALL BUSINESS  
8(a) PROGRAM  
1720 Peachtree Road., NW  
North Tower 600-0  
Atlanta, Georgia  
347-7061

REQUIREMENTS AND OBJECTIVES OF 8(a)-2:00-3:00PM  
(FREE) wednesdays

Apr. 6, 13, 20, & 27, 1988  
May 4, 11, 18, & 25, 1988  
June 1, 8, 15, 22 & 29, 1988  
July 6, 13, 20, & 27, 1988.

EMORY UNIVERSITY  
Atlanta, Georgia  
727-6000  
Steve Stoffle

STARTING AND MANAGING A SUCCESSFUL BUSINESS  
(\$55) (For Six weeks)  
Wednesday, April 13, 1987, 7:30 - 9:30  
HOW TO START AND MANAGE A SUCCESSFUL BUSINESS (\$55.00)  
Wednesdays, June 22-July 27, 1987, 7:30-9:30 p.m.

MIOTOWN YMCA  
805 Peachtree Street at 5th  
Street  
Atlanta, Georgia  
892-3476

HOW TO GET AN SBA LOAN (\$5.00)  
Tuesday, May 24, 1988, 5:30-7:30 PM

HOW TO FORM A BUSINESS PLAN (\$15)  
Tuesday, May 3, 1988, 5:30-7:00 PM  
BASIC ACCOUNTING (\$25)  
Wednesday, May 18 & 25, 1988, 5:30-8:30 PM  
HOW'S YOUR FINANCIAL HEALTH (\$10)  
Tuesday, April 26, 1988, 5:30-7:30 PM  
Tuesday, May 10, 1988, 5:30-7:30 PM  
PROFESSIONAL SELLING (\$15)  
Tuesday, May 31, 1988, 5:30-7:00 PM  
INTRODUCTION TO LOTUS 1-2-3 (\$100)  
Saturday, April 23, 1988, 9:00 AM-5:00PM  
INTRODUCTION TO DBASE III + (\$100)  
Wednesday, May 25, 1988, 9:00 AM-4:00 PM



CLAYTON STATE COLLEGE/SBOC  
Morrow, Georgia  
961-3440  
Jim Malloran

HOW TO START A SUCCESSFUL BUSINESS (8-part)  
(\$50.00) Eight-part series each Tuesday from  
7:00 P.M. - 9:00 P. M. starting April 5 through May 24,  
1988.  
BOOKKEEPING FOR SMALL BUSINESS (\$20.00)  
Tues./Thurs. April 19, 21, 1988 6:30 PM-9:30PM  
HOW TO START A NEW BUSINESS (\$20.00)  
Thurs. April 14, 1988, 6:30 PM-9:30PM (Fayette Co.)  
HOW TO START A NEW BUSINESS (\$30.00)  
Sat. April 16, 1988 9:30AM-4:30PM  
Sat. May 21, 1988, 9:30AM-4:30PM.  
SMALL BUSINESS INSURANCE (\$20.00)  
Wed. April 20, 1988, 6:30PM-9:30PM  
SMALL BUSINESS TAX WORKSHOP (\$20.00)  
Thurs. April 21, 1988, 8:30AM-4:30PM  
PREPARING LOAN PROPOSALS (\$20.00)  
Mon. April 25, 1988, 6:30PM-9:30PM  
MAIL ORDER (\$20.00)  
Thurs., April 28, 1988, 6:30PM-9:30PM  
PERSONAL FINANCIAL PLANNING FOR THE SMALL  
BUSINESS OWNER (\$20.00)  
TELE-MARKETING SALES (\$20.00)  
Thurs. May 12, 1988 6:30PM-9:30PM  
INTERNATIONAL SMALL BUSINESS (\$20.00)  
Tues. May 24, 1988, 6:30PM-9:30PM  
LEGAL ASPECTS OF DOING BUSINESS (\$20.00)  
Thurs. May 26, 1988, 6:30PM-9:30PM.

GEORGIA STATE/SBOC  
Urban Life Center  
Atlanta, GA  
Peter Rassel  
651-3550

GRASP COURSE II  
DEVELOPING YOUR BUSINESS PLAN (\$450.00)  
10 Saturdays, Feb. 6, 13, 20, 27, 1988  
Mar. 5, 12, 19, 26, 1988, Apr. 16, 23, 1988

GEORGIA STATE/SBOC  
Urban Life Center  
Atlanta, GA  
Peter Rassel

HOW TO OPEN YOUR OWN RESTAURANT (\$95.00)  
Preregister by Apr. 25, 1988  
6:30PM-9:30PM., Apr. 25, 1988, Saturday,  
April 30, 1988, 9:00AM to 5:00PM

NORTH GEORGIA REGIONAL SBOC  
GAINESVILLE AREA OFFICE  
1010 Ridge Road  
Gainesville, Georgia 30501  
404-536-7984

HOW TO START AND MANAGE A BUSINESS(\$15.00)  
Tuesday, May 10, 1988  
7:00-9:30PM

AT: BRENAU COLLEGE  
404-536-7984

TELEPHONE ETIQUETTE AND CHOOSING PHONE  
SYSTEMS TO GROW WITH A BUSINESS (\$25.00)  
Thursday, April 14, 1988  
6:30-9:00PM

AT: NORTH GEORGIA TECH  
404-536-7984

FUTURE ENTREPRENEUR'S DAY (\$25.00 for public;  
no charge for North Georgia Tech students)  
Tuesday, April 26, 1988  
8:30 AM-3:00PM

AT: BRENAU COLLEGE  
404-536-7984

HOW TO PREVENT SHOPLIFTING, AVOID BAD  
CHECKS & CREDIT CARD FRAUD(\$25.00)  
Tuesday, May 10, 1988  
6:30-9:00PM

AT: GAINESVILLE AREA OFFICE  
1010 Ridge Road  
Gainesville, Georgia  
404-536-7984

HOW TO START AND MANAGE A BUSINESS (\$15.00)  
Tuesday, May 10, 1988  
7:00-9:30PM

AT: LANIER TECH  
404-536-7984

FUTURE ENTREPRENEUR'S WORKSHOP (\$25.00) for public; (no  
charge for Lanier Tech students)  
Thursday, May 12, 1988  
6:30-9:30PM



GEORGIA VETERANS LEADERSHIP  
PROGRAM-VIETNAM VETERANS  
(Direct Loan Program)  
AT: PRESIDENTIAL HOTEL  
4001 Presidential Pkwy.  
at I-85 and I-285  
off Chamblee-Tucker Road  
Atlanta, GA  
Andy Farris 393-1708  
Ron Miller 565-8444

"SBA APPLICATION WORKSHOP"  
Saturday, June 11, 1988  
8:00AM to 4:30 PM  
Registration: \$25.00  
Lunch: \$9.50

IBM CORPORATION  
(To be announced)

SMALL BUSINESS PLANNING TODAY FOR A PROFITABLE  
TOMORROW (\$85)  
Week of June 20th, 7:30AM-5:30PM (Day to be announced)

SOUTHERN BELL  
AT: Radisson Hotel Atlanta  
Courtland Street and  
International Boulevard  
Atlanta, Georgia  
1-800-331-9046

SMALL BUSINESS: INCREASE PROFITS THROUGH MARKETING (\$99)  
(Veterans \$49)  
Thursday, June 9, and Friday, June 10, 1988, 9:30AM-7:00PM

MORRIS BROWN COLLEGE  
643 M. L. K. Jr. Drive  
Atlanta, GA 30314  
MAKE RESERVATIONS  
CALL 525-7831  
Ext. 157, 159, 235

WORKSHOP ON SMALL AND MINORITY BUSINESS (\$10.00 both days)  
Wed., Apr. 27, 1988, 1:00-5:00PM (for prospective owners)  
Thurs., Apr. 28, 1988, 1:00-5:00PM (for business owners)



**APRIL - JULY 1988  
SCORE - SBA  
SMALL BUSINESS  
SEMINARS - WORKSHOPS**

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**MANAGEMENT ASSISTANCE  
FOR THE SMALL BUSINESS**

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**PRE-BUSINESS WORKSHOPS  
8:30 A.M. to 4:00 P.M.  
Tuesday, Apr. 12, 1988  
Tuesday, May 10, 1988  
Tuesday, June 14, 1988**

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**SEMINARS  
7:00 P.M. to 9:30 P.M.**

**MONEY SOURCES FOR SMALL BUSINESS  
Monday, Apr. 25, 1988**

**START-UP PLANS FOR SMALL BUSINESS  
Monday, May 23, 1988**

**INTRODUCTION TO COMPUTERS IN BUSINESS  
Monday, June 27, 1988**

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**LOCATION  
1720 Peachtree Road, N.W.  
Room 197-199  
Atlanta, Georgia 30309**

**DAYTIME - Free parking compliments of The Beer Mug Restaurant, 1705 Peachtree Rd., NW. Across street from 1720 Peachtree Rd.**

**EVENING - Free parking at 1720 Peachtree Road. enter building through rear double doors.**

**All programs provide special information for Veterans, Vietnam-Era Veterans and Handicapped Veterans. Facilities available for the handicapped.**

**Presented by  
SCORE  
SERVICE CORPS OF RETIRED EXECUTIVES  
Co-Sponsored by  
U.S. Small Business Administration**

**HOW TO APPLY FOR AN  
SBA GUARANTEED LOAN**

**Regulations Procedures - Criteria  
(\$5.00 - Pay at the door)**

**SEMINARS - 9:30 - 11:30 AM  
FRIDAY - APRIL 8, 1988  
FRIDAY - MAY 6, 1988  
FRIDAY - JUNE 10, 1988**

**LOCATION**

**1720 Peachtree Road, NW  
Room 197  
Atlanta, Georgia 30309  
(404) 347-2442**

**YOUR BUSINESS TAX PLANNING  
Tuesday, April 5, 1988 9:00-12:00 AM  
(\$7.00 - Pay at the door) Room 162**

Special tax situations will be discussed to assist your tax filing requirements.

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**ABOUT SCORE**

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The Service Corps of Retired Executives (SCORE) is a national volunteer group of 12,000 men and women who have successfully completed their own active business careers and who now offer their help to both going and prospective small businesses. SCORE volunteers appreciate the contribution that small business is making to American free enterprise. They offer their talents and experience to those who need help.

Atlanta SCORE Chapter 48 has a membership of men and women who counsel several hundred clients each year at no charge. Attendance at 'going into business' workshops and evening seminars on specific business topics numbers over 1,000 participants annually.

Individual counseling sessions are available with SCORE counselors. We recommend that you follow up your participation in the workshops and seminars by discussing your own plans in detail with a counselor. There is no charge. Counselors are available at 1720 Peachtree Rd., N.W., Suite 600A Mondays through Fridays from 10:00 A.M. to 4:00 P.M. No appointment is necessary. You may call (404) 347-2442 for more details.





**PRE-BUSINESS WORKSHOPS**  
**8:30 A.M. to 4:00 P.M.**  
**TUESDAY, APRIL 12, 1988, Rm. 162**  
**TUESDAY, MAY 10, 1988, Rm. 197-99**  
**TUESDAY, JUNE 14, 1988, Rm. 162**

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**AGENDA**

**INTRODUCTION**  
Financial Factors and  
Sources of Capital  
Marketing

**LUNCH (On Your Own)**  
Forms of Business Organization  
Business Records - Regulations,  
Taxes and Insurance

**ADJOURN**

The inherent uncertainty of the future makes it imperative that management use all information and every technique that can be of assistance in making decisions affecting future operations. The business owner/manager needs to acquire and continually upgrade his or her knowledge and skills so that he will have the best chance of success in today's highly competitive business world.

This course will provide the opportunity for the potential or newly self-employed business person to gain or increase expertise in managing his or her own business.

Experienced management executive specialists will conduct the sessions in each management area

**PROGRAM OBJECTIVES**

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1. To make the small business owner/manager aware of up-to-date ideas which will improve the effectiveness of his or her business operations.
2. To give practical techniques which will aid him or her in improving these ideas.
3. To prepare him or her to cope successfully with the many changes in the future economic environment.

**SEMINARS**  
**7:00 P.M. to 9:30 P.M.**

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**MONDAY EVENING, APRIL 25, 1988**  
**FINDING MONEY SOURCES FOR**  
**YOUR SMALL BUSINESS**

Never enough money! You need capital to buy inventory, pay employees, pay taxes, meet operating expenses, and so forth. Do you understand the various sources of money available to you? How about capital generated internally? Capital available from trade creditors? Borrowed money? Sale of ownership interest? Do you know which source is best suited to the needs of your business? A financial plan will give you time to secure capital on the best possible terms before a crisis forces you into an emergency cash shortage.

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**MONDAY EVENING, MAY 23, 1988**  
**START-UP PLANS FOR A SMALL BUSINESS**

Starting a small business requires advance planning and a review of principles of successful management. Start-up capital and other financial requirements are key considerations. Commercial space needed, record keeping systems, business licenses, tax and legal requirements, credit policies, and market analysis are a few of the matters to be considered at this seminar.

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**MONDAY EVENING, JUNE 27, 1988**  
**INTRODUCTION TO COMPUTERS IN BUSINESS**

A computer and accounting professional with over 15 years experience in mainframe computers, minicomputers and microcomputers will discuss microcomputers in small businesses. The discussion will be oriented towards potential business micro-computer buyers and recent purchasers. Topics will include potential applications, the benefits to expect from a computer system, how to decide whether you need a computer, peripheral equipment, the computer purchasing decision, and the dollar and non-dollar costs of owning and using a business micro-computer system.



# Small Business: The World Is Your Market

ATLANTA, GEORGIA

MARCH 24-25, 1988



U.S. Small Business Administration

1720 Peachtree Rd., N.W.

Suite 600

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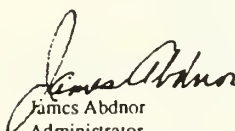
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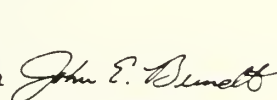
**NATIONAL SUPPORTING ORGANIZATIONS**  
The Service Corps of Retired Executives (SCORE)  
The U.S. Chamber of Commerce  
The National Federation of Independent Businesses  
The Burlington Northern Company  
Health Industry Manufacturing Association

Dear Small Business Executive:

There is an urgent need to transfer the spirit of entrepreneurship into the global marketplace. Small business exporters hold the key to significantly reducing America's trade deficit. Participation by small business in new international markets will mean prosperity to thousands of small business owners and work for many Americans. Every one billion dollars in exports creates over 25,000 jobs. In response to these compelling facts, the Small Business Administration (SBA) has made promotion of exporting a top priority. AT&T recognizes the importance of small business in ensuring the continued growth and expansion of the American economy and is committed to supporting the SBA's export promotion efforts. In cooperation with AT&T, SBA has developed a series of trade forums to inform small business owners of the challenges and opportunities of trading outside our borders.

We hope that you will attend the International Trade Forum to learn how exports can increase your profits and why for *Small Business: The World Is Your Market*.

  
James Abdnor  
Administrator  
U.S. Small Business  
Administration

  
John E. Berndt  
Senior Vice President  
AT&T International  
Division

**REGIONAL SPONSORS**  
AT&T, Southern Regional Office, Atlanta, Ga  
SCORE Chapter #48, Atlanta, GA

We particularly thank the Georgia District of the U.S. & Foreign Commercial Service, the Georgia Department of Industry & Trade, the Atlanta Chamber of Commerce, SCORE Chapter #48 of Atlanta, the International Trade Development Center of the University of Georgia's Small Business Development Center, and SBA's Atlanta District Office for their assistance in the planning, execution and delivery of this conference.

**HOTEL ACCOMMODATIONS:**  
Contact the Radisson Hotel Atlanta at (404) 659-6500. Be sure to mention the SBA-AT&T conference to obtain a special rate of \$85/night.

**REGISTRATION INFORMATION:**  
Space is limited! Register early! Preregistration is \$85. On-site registration is \$99.

For more information contact your nearest SBA office or call  
(404) 347-4948

Complete the "Registration Form" and "Course Pre-Selection" card. Return these with your check to:

"The World Is Your Market"  
1720 Peachtree Rd. N.W.  
Suite 600  
Atlanta, GA 30309

Make checks payable to "SCORE Chapter 48". (No refunds will be issued after March 17.)

**HANDICAPPED:** Special arrangements will be made upon request.



-----AGENDA - THURSDAY, MARCH 24-----

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7:30 AM - Registration  
7:45 AM - 8:30 AM Coffee & Continental Breakfast  
8:30 AM - 9:20 AM Welcoming & Opening Session

**"The World Is Your Market"**  
James Abdnor, Administrator,  
U.S. Small Business Administration

9:30 AM - 10:30 AM Series I Courses  
10:45 AM - 11:45 AM Series II Courses  
12 NOON - 1:00 PM Luncheon

**"The World of Exporting"**  
Judith Sans, President  
Judith Sans Internationale

1:00 PM - 2:00 PM Series III Courses  
2:15 PM - 3:15 PM Series IV Courses  
3:30 PM - 4:30 PM Series V Courses  
4:30 PM - 6:30 PM Reception And Exhibits\*

-----AGENDA - FRIDAY, MARCH 25-----

7:30 AM - 8:30 AM Registration  
8:30 AM - 9:30 AM Series VI Courses  
9:45 AM - 10:45 AM Series VII Courses  
11:00 AM - 12 NOON Series VIII Courses  
12:15 PM - 1:15 PM Series IX Courses  
1:15 PM - 2:45 PM Luncheon & Panel Session

**"Successful Exporters"**  
Moderator: George Trabue, President  
Eastman Chemical Products, Kingsport, TN

Panelists:

Cliff Hilburn, President  
Hilburn Custom Marine  
Tunnelhill, GA  
Ralph Howard, President  
Kleentex, Inc.  
LaGrange, GA  
Robert J. Broadwater, Senior Vice President(Retired)  
Coca-Cola  
Atlanta, GA  
Michael Jones, President  
HMA International  
Business Development, Ltd.  
Greensboro, N.C.

\*Exhibits open from 12 Noon Thursday-4:30 PM Friday

**THE CORE CURRICULUM**

- A. "WHO CAN HELP?" - SOURCES OF EXPORT ASSISTANCE  
P. Douglas Weiler, Associate, International Trade Consultants, Inc., Atlanta, GA
- B. "DIFFERENT STROKES..." - CULTURAL ASPECTS OF INTERNATIONAL TRADING  
Gordon Harrison, President, World Technology Center, Marietta, GA  
Pamela Mobley, Cross Cultural Manager, World Technology Center, Marietta, GA
- C. "WHERE IN THE WORLD?" - PERSPECTIVE ON THE WORLD MARKET  
Carlos Martel, President, The Multisource Group Inc., Atlanta, GA
- D. DISTRIBUTION: FINDING BUYERS, AGENTS & DISTRIBUTORS  
Scout Seydel, President, The Seydel Companies, Atlanta, GA
- E. INTERNATIONAL TELECOMMUNICATIONS: ITS IMPLICATIONS FOR SMALL BUSINESS  
Brenda Pruett, Seminar Leader, Communications Planning Center - AT&T, San Francisco, CA
- F. DISTRIBUTION: EXPORT MANAGEMENT & TRADING COMPANIES  
Eric Joiner, Vice President-Marketing, AJC International Inc., Atlanta, GA
- G. LEGAL ASPECTS OF INTERNATIONAL TRADE  
William C. Poole, Chamberlain, Hrdlicka, White, Johnson & Williams, Attorneys-at-Law, Atlanta, GA
- H. ANSWERING INQUIRIES: PRICING & THE PRO-FORMA INVOICE  
Treg S. Brown, Manager, Ernst & Whinney, Atlanta, GA  
Essie Stewart, Air, Land, Ocean International Services, Atlanta, GA
- I. MINIMIZING FOREIGN PAYMENT RISKS  
William S. Edwards, Vice President, First Wachovia Corporate Services, Atlanta, GA





## SPECIAL INTEREST CURRICULUM

- J. TRADE SHOWS & TRADE MISSIONS = SALES SUCCESS  
Mark Henricks, Henricks Technologies Inc., Atlanta, GA,  
Frank Scheidler, Area Manager, Neptune International,  
Atlanta, GA
- K. JOINT-VENTURES & LICENSING OVERSEAS  
John E. Yates, Esq., Corporate/Technology Group, Morris,  
Manning & Martin, Attorneys-at-Law, Atlanta, GA
- L. FOCUSING ON INTERNATIONAL MARKETS:  
ADVERTISING OVERSEAS  
Hugh Hyde, Jr., Vice President, Johnston International  
Publishing Corp., New York City, NY
- M. EXPORT LICENSING: COPING WITH THE RED TAPE  
Luba Czura, Corporate/Technology Group, Morris Manning, &  
Martin, Attorneys at Law, Atlanta, GA
- N. TRADEMARKS, PATENTS AND COPYRIGHTS  
OVERSEAS  
Henry W. Jones, III, Corporate/Technology Group, Morris,  
Manning & Martin, Attorneys-at-Law, Atlanta, GA
- O. EXPORT MARKETING: THE U.S. & FOREIGN  
COMMERCIAL SERVICE  
George Norton, Director, U.S. & Foreign Commercial Service,  
Atlanta, Ga
- P. REDUCING RISKS AND FACILITATING FINANCING:  
REVIEW OF EXPORT/IMPORT BANK AND F.C.I.A.  
SERVICES  
Gail Wilson, Assistant Vice President, The Frank B. Hall  
Company of Georgia, Atlanta, Ga  
Gerald D. Solomon, Senior Marketing Manager, Export-Import  
Bank of the United States, Washington, D.C.
- Q. SOURCES OF EXPORT WORKING CAPITAL  
William C. Cummins, Vice President-Trade Finance,  
SouthTrust Bank of Alabama, Birmingham, AL  
Marie Glover, Loan Officer, Finance Division, SBA District  
Office - Atlanta, GA
- R. TAX ADVANTAGES OF EXPORT: THE FOREIGN SALES  
CORPORATION  
John Thornton, Vice President, Global Trade Associates Inc.,  
Boston, MA
- S. SELLING ABROAD IN FOREIGN CURRENCIES  
T. Edgar Vance, Regional International Trade Representative,  
SCORE, Kingsport, TN
- T. THE EXPORT INSTRUMENT: THE LETTER OF CREDIT  
Graham Martin, Manager-International Division, Barnett Bank  
of Jacksonville, FL
- U. ROUNDTABLE: EXCHANGE OF VIEWS ON TRADE  
TOPICS  
Tom Watson, Industry Sector Advisory Committee on Small &  
Minority Business for Trade Policy Matters  
Carol Merck, SBA National Advisory Council  
Duane Hunter, SBA Atlanta Regional Advisory Council  
Fred Kress, Georgia District Export Council

## WORLD MARKET CURRICULUM

- V. TRADING WITH JAPAN  
Shusaku Hirano, Executive Director, Japanese  
External Trade Organization (JETRO), Atlanta, GA
- W. WORLD MARKETS FOR FOREST PRODUCTS  
Tom Hammet, Forest Products Specialist,  
International Trade Center, Athens, GA  
Don Jefferson, International Sales Manager,  
T&F Hardwood, Inc. Milledgeville, GA  
Rhett Willis, President, Construction Exports, Inc.,  
Savannah, GA
- X. WORLD MARKETS FOR SOFTWARE  
Don Nay, Trade Specialist, U.S. & Foreign  
Commercial Service, Atlanta, GA  
Charles Van Wickle, V.P.-Sales & Marketing, The  
Brill Corporation, Norcross, GA
- Y. TRADING WITH THE REPUBLIC OF KOREA  
Sung Ho Cho, Executive Director, Korean Trade  
Promotion Center, New York, N.Y.
- Z. TRADING WITH TAIWAN  
Tony Lee, Deputy Director, China External Trade  
Development Corporation (CETDC) New York,  
NY
- AA. WORLD MARKETS FOR MEDICAL PRODUCTS  
Michael Jones, President, HMA International  
Business Development Ltd., Greensboro, NC
- BB. WORLD MARKETS FOR INDUSTRIAL  
CHEMICALS, FIBERS & PLASTICS  
George Trabue, President, Eastman Chemical  
Products, Kingsport, TN
- CC. TRADING WITH THE UNITED KINGDOM  
Michael Jones, President, HMA International  
Business Development Ltd., Greensboro, NC



APPENDIX H

Section C

PUBLICATION LISTS



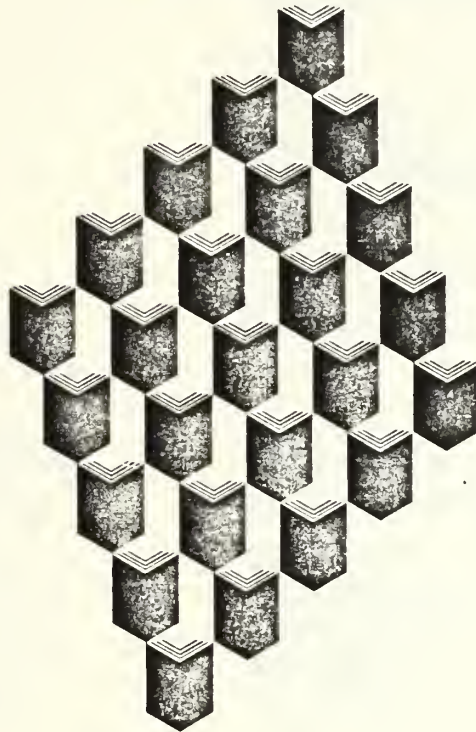
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Atlanta, Ga. 30303  
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## Business Development Booklets

**To Order:** Complete the Order Form and check off requested publications. Send it with your check or money order to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Make check or money order payable to the Superintendent of Documents. Do not send postage stamps or cash. **These booklets are not sold by the Small Business Administration. Do not send payment for booklets to SBA.** If Business Development Pamphlets are also being ordered (Form 115A), send a **separate payment** to SBA for the pamphlets. Foreign remittances should be made by international money order payable to the Superintendent of Documents, by draft drawn in U.S. dollars on an American or Canadian bank located in the U.S. or Canada, or by UNESCO coupons. **Please note:** In accordance with U.S. Department of the Treasury regulations, checks drawn on Canadian banks for amounts of less than four U.S. dollars (\$4.00) cannot be accepted. This regulation also applies to Canadian money orders. If the value of your order is less than \$4.00, we suggest you charge your order to your MasterCard or VISA account. Please include your card number and date of expiration. Prices subject to change without notice.

### Small Business Management Series

The books in this series discuss specific management techniques or problems.

No.

9. **Cost Accounting for Small Manufacturers**  
Assists managers of small manufacturing firms establish accounting procedures that help control production and business costs.
15. **Handbook of Small Business Finance**
20. **Ratio Analysis for Small Business**
25. **Guides for Profit Planning**  
Guides for computing and using the breakeven point, the level of gross profit, and the rate of return on investment.
29. **Management Audit for Small Manufacturers**  
A questionnaire for manufacturers.
30. **Insurance and Risk Management for Small Business**
31. **Management Audit for Small Retailers**  
149 questions to review business operations.
32. **Financial Recordkeeping for Small Stores**
33. **Small Store Planning for Growth**  
Covers merchandising, advertising and display, and provides checklists to increase sales.
35. **Franchise Index/Profile**  
Presents an evaluation process that may be used to investigate franchise opportunities.
36. **Training Salesmen to Serve Industrial Markets**
37. **Financial Control by Time-Absorption Analysis**

No.

38. **Management Audit for Small Service Firms**  
A questionnaire for service firms.
39. **Decision Points in Developing New Products**  
Provides a path from idea to marketing plan for the small manufacturing or R & D firm.
41. **Purchasing Management and Inventory Control for Small Business**
42. **Managing the Small Service Firm for Growth and Profit**
43. **Credit and Collections for Small Stores**
44. **Financial Management: How to Make a Go of Your Business**

### Starting and Managing Series

This series is designed to help the small entrepreneur "to look before leaping" into a business.

No.

1. **Starting and Managing a Small Business of Your Own**
101. **Starting and Managing a Small Service Business**
102. **Starting and Managing a Small Business from Your Home**
103. **Small Business Incubator Handbook: A Guide for Start-up and Management**

### Nonseries Publications

#### A Basic Guide to Exporting

003-009-00349-1 (Commerce Dept.)

#### U.S. Government Purchasing and Sales Directory

A directory for businesses interested in selling to the U.S. Government. Lists the purchasing needs of various Agencies.

045-000-00226-6

#### Managing for Profits

Discusses the various management functions.

045-000-00206-3

#### Buying and Selling a Small Business

045-000-00164-4

#### Women Business Owners: Selling to the Federal Government

045-000-00229-2

### Business Basics

Each of the 23 self-study booklets in this series contains text, questions, and exercises that teach a specific aspect of small business management.

No.

1001. The Profit Plan
1002. Capital Planning
1003. Understanding Money Sources
1004. Evaluating Money Sources
1005. Asset Management
1006. Managing Fixed Assets
1007. Understanding Costs
1008. Cost Control
1009. Marketing Strategy

Continued on Back Panel





**Business Basics (continued)**

| No.  |                                                        |
|------|--------------------------------------------------------|
| 1010 | Retail Buying Function                                 |
| 1011 | Inventory Management—Wholesale/Retail                  |
| 1012 | Retail Merchandise Management                          |
| 1013 | Consumer Credit                                        |
| 1014 | Credit and Collections: Policy and Procedures          |
| 1015 | Purchasing for Manufacturing Firms                     |
| 1016 | Inventory Management—Manufacturing/Service             |
| 1017 | Inventory and Scheduling Techniques                    |
| 1018 | Risk Management and Insurance                          |
| 1019 | Managing Retail Salespeople                            |
| 1020 | Job Analysis, Job Specifications, and Job Descriptions |
| 1021 | Recruiting and Selecting Employees                     |
| 1022 | Training and Developing Employees                      |
| 1023 | Employee Relations and Personnel Policies              |

Prices shown were in effect in October 1985. Prices of Government publications are subject to change without notice and the prices charged on your order will be those in effect when your order is processed.

A 25-percent discount is given for quantities of 100 or more of the same publication to a single address. For foreign mailings, please add 25 percent to prices shown above.

The publications listed above may also be purchased from U.S. Department of Commerce field offices. If one is located in your city, consult your telephone directory for the address.

A companion form, SBA-115A, lists Business Development Pamphlets and is available without charge from SBA, P.O. Box 15434, Fort Worth, Texas 76119.

**115B (2-87)**

★ U.S. GOVERNMENT PRINTING OFFICE: 1987-174-921

**Order Form Check List****Small Business Management Series**

| No. | Stock No.       | Price  |
|-----|-----------------|--------|
| 9   | 045-000-00162-8 | \$6.00 |
| 15  | 045-000-00208-0 | 4.50   |
| 20  | 045-000-00150-4 | 4.50   |
| 25  | 045-000-00137-7 | 4.50   |
| 29  | 045-000-00151-2 | 4.25   |
| 30  | 045-000-00209-8 | 5.00   |
| 31  | 045-000-00149-1 | 4.50   |
| 32  | 045-000-00142-3 | 5.50   |
| 33  | 045-000-00152-1 | 5.50   |
| 35  | 045-000-00125-3 | 4.50   |
| 36  | 045-000-00133-4 | 2.50   |
| 37  | 045-000-00134-2 | 5.50   |
| 38  | 045-000-00203-9 | 4.50   |
| 39  | 045-000-00146-6 | 4.25   |
| 41  | 045-000-00167-9 | 4.50   |
| 42  | 045-000-00165-2 | 4.25   |
| 43  | 045-000-00169-5 | 5.00   |
| 44  | 045-000-00233-1 | 2.50   |

**Starting and Managing Series**

| No. | Stock No.       | Price  |
|-----|-----------------|--------|
| 1   | 045-000-00212-8 | \$4.75 |
| 101 | 045-000-00207-1 | 4.50   |
| 102 | 045-000-00232-2 | 1.75   |
| 103 | 045-000-00237-3 | 8.50   |

**Nonseries Publications**

|       | Stock No.       | Price  |
|-------|-----------------|--------|
| _____ | 003-009-00349-1 | \$6.50 |
| _____ | 045-000-00226-8 | 5.50   |
| _____ | 045-000-00206-3 | 5.50   |
| _____ | 045-000-00164-4 | 5.00   |
| _____ | 045-000-00229-2 | 2.75   |

**Business Basics**

| No.  | Stock No.       | Price  |
|------|-----------------|--------|
| 1001 | 045-000-00192-0 | \$4.50 |
| 1002 | 045-000-00193-8 | 4.50   |
| 1003 | 045-000-00194-6 | 4.75   |
| 1004 | 045-000-00174-1 | 5.00   |
| 1005 | 045-000-00175-0 | 2.75   |
| 1006 | 045-000-00176-8 | 4.75   |
| 1007 | 045-000-00195-4 | 3.25   |
| 1008 | 045-000-00187-3 | 4.75   |
| 1009 | 045-000-00188-1 | 4.75   |
| 1010 | 045-000-00177-6 | 4.50   |
| 1011 | 045-000-00190-3 | 4.50   |
| 1012 | 045-000-00178-4 | 4.75   |
| 1013 | 045-000-00179-2 | 4.50   |
| 1014 | 045-000-00180-6 | 4.75   |
| 1015 | 045-000-00181-4 | 4.75   |
| 1016 | 045-000-00182-2 | 4.75   |
| 1017 | 045-000-00183-1 | 4.75   |
| 1018 | 045-000-00184-9 | 4.50   |
| 1019 | 045-000-00189-0 | 4.75   |
| 1020 | 045-000-00185-7 | 4.50   |
| 1021 | 045-000-00186-5 | 4.50   |
| 1022 | 045-000-00191-1 | 4.50   |
| 1023 | 045-000-00196-2 | 4.50   |



## THANK YOU

for your interest in the Small Business Administration. We are pleased to offer you our extensive library of business publications.

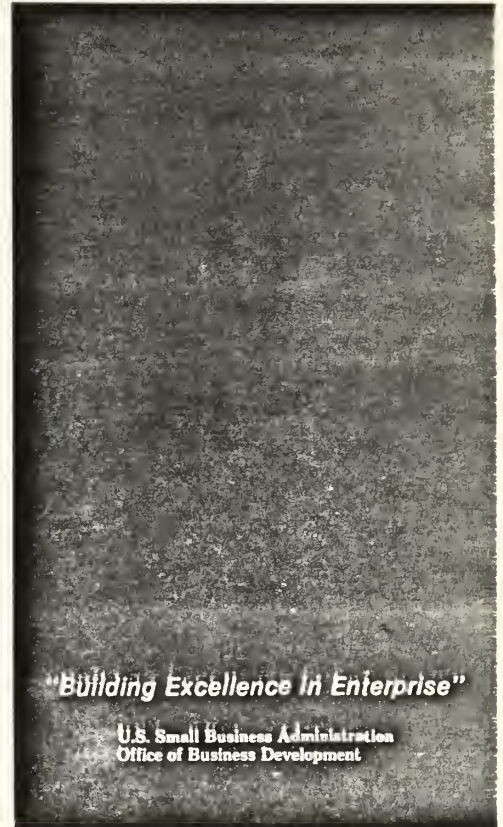
**INFORMATION** is power! It is an asset that can help overcome uncertainty and open new avenues for opportunity. **SUCCESS** in your business will depend on what you know and how well you apply what you have learned.

- In 1986, the SBA distributed over 6.2 million business publications to entrepreneurs like yourself.
- All SBA business publications are Easy-To-Read and provide Basic Information about starting, running or expanding a successful small business.
- The practical guidance found in these publications can provide you with knowledge about successful small business management.

Review the following publications and select those that can best satisfy your business needs.

---

# SBA Directory of Business Development Publications



*"Building Excellence In Enterprise"*

U.S. Small Business Administration  
Office of Business Development



## FINANCIAL MANAGEMENT AND ANALYSIS

### FM 1 ABC'S OF BORROWING \*

Some small business people cannot understand why a lending institution refused to lend them money. Others have no trouble getting funds but are surprised to find strings attached to their loans. Learn the fundamentals of borrowing....\$1.00.

### FM 2 PROFIT COSTING AND PRICING FOR MANUFACTURERS

Uncover the latest techniques for pricing your products profitably....\$1.00.

### FM 3 BASIC BUDGETS FOR PROFIT PLANNING \*

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In order to survive, a business must have enough cash to meet its obligations. This Aid shows the owner/manager how to plan for the movement of cash through the business and thus plan for future requirements....\$1.00.

### FM 5 A VENTURE CAPITAL PRIMER FOR SMALL BUSINESS

This best-seller highlights the venture capital resources available and how to develop a proposal for obtaining these funds.....50¢.

### FM 6 ACCOUNTING SERVICES FOR SMALL SERVICE FIRMS

Sample profit/loss statements are used to illustrate how accounting services can help expose and correct trouble spots in a business' financial records....50¢.

### FM 7 ANALYZE YOUR RECORDS TO REDUCE COSTS

Cost reduction IS NOT simply slashing any and all expenses. Understand the nature of expenses and how they inter-relate with sales, inventories, and profits. Achieve greater profits through more efficient use of the dollar.....50¢.

\* — DENOTES OUR BEST-SELLERS !

## FM 8 BUDGETING IN A SMALL BUSINESS FIRM

Learn how to set up and keep sound financial records. Study how to effectively use journals, ledgers and charts to increase profits.....50¢.

### FM 9 SOUND CASH MANAGEMENT AND BORROWING

Avoid a "cash crisis" through proper use of cash budgets, cash flow projections and planned borrowing concepts.....50¢.

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Need some basic advice on setting up a useful recordkeeping system? This publication describes how....\$1.00.

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Learn how "breakeven analysis" enables the manager/owner to make better decisions concerning sales, profits and costs....\$1.00.

### FM 12 A PRICING CHECKLIST FOR SMALL RETAILERS

The owner/manager of a small retail business can use this checklist to uncover proven pricing strategies that can lead to profits.....50¢.

### FM 13 PRICING YOUR PRODUCTS AND SERVICES PROFITABLY

Discusses how to price your products profitably, how to use the various techniques of pricing and when to use these techniques to your advantage....\$1.00.

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### MP 1 EFFECTIVE BUSINESS COMMUNICATIONS

Explains the importance of business communications and how they play a valuable role in business success.....50¢.

\* — DENOTES OUR BEST-SELLERS !



**MP 2 LOCATING OR RELOCATING YOUR BUSINESS**

Learn how a company's market, available labor force, transportation and raw materials are affected when selecting a business location....\$1.00.

**MP 3 PROBLEMS IN MANAGING A FAMILY-OWNED BUSINESS**

Specific problems exist when attempting to make a family-owned businesses successful. This publication offers suggestions on how to overcome these difficulties....50c.

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This publication is designed to help an owner/manager of a small construction company pull together the resources to develop a business plan....\$1.00.

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Learn how to plan for success....50c.

**MP 7 FIXING PRODUCTION MISTAKES**

Structured as a checklist, this publication emphasizes the steps that should be taken by a manufacturer when a production mistake has been found....50c.

**MP 8 SHOULD YOU LEASE OR BUY EQUIPMENT?**

Describes various aspects of the lease/buy decision. It lists advantages and disadvantages of leasing and provides a format for comparing the costs of the two....50c.

**MP 9 BUSINESS PLAN FOR RETAILERS**

Learn how to develop a business plan for a retail business....\$1.00.

**MP 10 CHOOSING A RETAIL LOCATION**

Learn about current retail site selection techniques such as demographic and traffic analysis. This publication addresses the hard questions the retailer must answer before making the choice of a store location....\$1.00.

**MP 11 BUSINESS PLAN FOR SMALL SERVICE FIRMS**

Outlines the key points to be included in the business plan of a small service firm....50c.

**MP 12 GOING INTO BUSINESS \***

This best-seller highlights important considerations you should know in reaching a decision to start your own business. It also includes a checklist for going into business....50c.

**MP 13 FEASIBILITY CHECKLIST FOR STARTING YOUR OWN BUSINESS**

Helps you determine if your idea represents a real business opportunity. Assists you in screening out ideas that are likely to fail before you invest extensive time, money and effort in them....\$1.00.

**MP 14 HOW TO GET STARTED WITH A SMALL BUSINESS COMPUTER**

Helps you forecast your computer needs, evaluate the alternative choices and select the right computer system for your business....\$1.00.

**MP 15 THE BUSINESS PLAN FOR HOMEBASED BUSINESS \***

Provides a comprehensive approach to developing a business plan for a homebased business. If you are convinced that a profitable home business is attainable, this publication will provide a step-by-step guide to develop a plan for your business....\$1.00.

**MP 16 HOW TO BUY OR SELL A BUSINESS**

Learn several techniques used in determining the best price to buy or sell a small business....\$1.00.

**MP 17 PURCHASING FOR OWNERS OF SMALL PLANTS**

Presents an outline of an effective purchasing program. Also includes a bibliography for further research into industrial purchasing....50c.

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**MP 18 BUYING FOR RETAIL STORES**

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Acquaint yourself with the wealth of information available on management approaches and techniques to identify, analyze and solve business problems....\$1.00

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Helps you develop a formal strategic plan of action for your small business....\$1.00

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This checklist is for the owner/manager of a small retail business. The questions outlined cover customer analysis, buying, pricing and promotion and other factors in the retail marketing process....\$1.00.

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**PI 2 INTRODUCTION TO PATENTS**

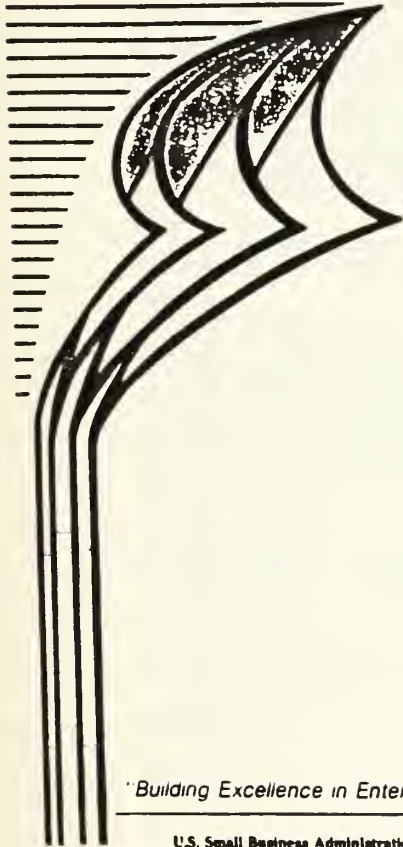
Offers some basic facts about patents to help clarify your rights. It discusses the relationships among a business, an inventor and the Patent and Trademark Office to ensure protection of your product and to avoid or win infringement suits....50¢.

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APPENDIX H

Section D

SAMPLE PUBLICATIONS



## How to operate a business legally in Georgia

**A**lmost everyone who starts a new business is aware that a business license is necessary to operate in Georgia, but what other legal requirements does the state and federal government have? What does the owner need to know about withholding tax, building occupancy permits and sales and use tax?

Finding out this information can be difficult, since it means talking to several different agencies at the federal, state and local levels. This information is not all-inclusive and should not be considered a substitute for legal assistance from a qualified attorney. Also, since the requirements are subject to change, prospective businesspeople should contact the individual departments for the latest information.

Probably the best place to start in assimilating all this information is with the business license. Everyone is generally aware of the need for one, but not everyone knows where to get it. If located within an incorporated city limit, a license must be obtained from the city; if outside the city limits, then from the county.

### Business Licenses:

City of Atlanta — 658-6323  
 City of Decatur — 377-9911  
 City of Jonesboro — 478-7407  
 City of Lawrenceville — 963-2414  
 City of Marietta — 429-4281  
 Clayton County — 477-3565  
 Cobb County — 426-3611  
 DeKalb County — 371-2461  
 Fulton County — 572-3226  
 Gwinnett County — 995-6480

Also, those who are planning to occupy a new building or use an existing one for a new business, may have to apply for a Certificate of Occupancy from the appropriate city or county zoning department.

### Planning and Zoning Departments:

City of Atlanta — 658-6336  
 Clayton County — 477-3678  
 Cobb County — 429-7000  
 DeKalb County — 371-2155  
 Fulton County — 586-4930  
 Gwinnett County — 995-2600

Businesses involved in food processing or

grocery sales need a food sales establishment license from the Georgia Department of Agriculture before starting. An inspection is also required and may be requested by phone. An application for business will be accepted if the inspection shows that the establishment meets the department's requirements. Help can be obtained from the Department of Agriculture in preparing for the inspection. It is advised that business owners contact the department before investing in any renovation, equipment or plans. For information, contact: Georgia Department of Agriculture, Consumer Protection Division, Field Forces Office, Agriculture Building, Room 648, Atlanta, Ga. 30334; 656-3627.

Firms engaged in cooking or preparation of food to be served, including restaurants, hotels and nursing homes, are licensed by the county environmental health departments.

### Environmental Health Departments:

Clayton County — 477-8445  
 Cobb County — 423-4803  
 DeKalb County — 292-1979  
 Fulton County — 572-2255  
 Gwinnett County — 963-5132

Categories of business that concern the public interest also are subject to special permits, licensing and inspection. This includes schools, nurseries, motor transport, public entertainment, employment agencies, securities dealers and financial institutions. Contact the State of Georgia Information Line at 656-2000 for the number of the correct agency.

Businesses which sell alcoholic beverages must have a state alcoholic beverage license and a local license which is obtained from either the city or county in which the store is located. The application forms for the licenses must be completed before the business is opened. Local authorities and the Department of Revenue can be of assistance in preparing the application. For information and application forms from the state contact: Department of Revenue, Alcohol and Tobacco Unit, 801 Trinity-Washington Building, Atlanta, Ga. 30334; 656-4260.

Taxes cannot be ignored, of course. Business owners are required by law to withhold the following from the wages paid to employees: federal income taxes, state income taxes and FICA (Social Security) insurance.

Income taxes will also be levied by the federal and state governments on earnings of any business. Therefore, each business must file an income tax return with both agencies. Businesses may be required to file estimated tax returns and pay estimated taxes on a quarterly basis.

For federal tax information, contact: U.S. Internal Revenue Service, 275 Peachtree Street N.E., Atlanta, Ga. 30303; 522-0050. State tax information can be obtained from: Georgia Department of Revenue, Georgia Income Tax Division, P.O. Box 38067, Atlanta, Ga. 30334; 656-4180.

*If you plan to own a business in Georgia, the door is wide open. But first, think about complying with the numerous regulations. You must conform to the rules, or your business will have its door slammed in a hurry.*

The IRS has a number of publications that are available upon request to small businesses. One of the most helpful is *Your Business Tax Kit*, which includes data and forms for a Federal Employer Identification Number and a tax guide for small businesses. That can be ordered by calling Forms and Publications at 1-800-424-3676 or through a visit to the I.R.S. office.

In Georgia there is a 3 percent sales and use tax which applies to the retail purchase, retail sale, rental, storage, use or consumption of tangible personal property and certain services. In other words, sales tax must be collected on just about every tangible item sold, except for the exempt categories of prescription drugs, eyeglasses and contact lenses.



A sales tax number is required for each business before opening. The number plus instructions for collecting, reporting and remitting the money to the state on a monthly basis can be obtained from: Georgia Department of Revenue, Sales and Use Tax Division, Registration Section, 310 Trinity-Washington Building, Atlanta, Ga. 30334; 656-4060.

In addition, some of the metro Atlanta counties have exercised local option issues to increase their sales and use tax to pay for certain civic projects. In Cobb, Gwinnett and DeKalb Counties the sales tax is 4 percent, while in Fulton it's 5.

Businesses are required by the state to pay unemployment insurance tax if the company has one or more employees for 20 weeks in a calendar year or it has paid gross wages of over \$1,500 in a calendar quarter. The taxes are payable at a rate of 2.7 percent on the first \$7,500 in annual wages of an employee. Unemployment insurance must be reported and returns made to the state. For information, contact: Georgia Department of Labor, Adjudication Section, Sussex Place, 148 International Blvd., Room 727, Atlanta, Ga. 30303; 656-5590.

If a business employs three or more, workers' compensation insurance must be carried to provide protection to those injured in on-the-job accidents. The State Board of Workers' Compensation aids people who need claims assistance. For information on how to obtain the insurance, contact: State Board of Workers' Compensation, Suite 1000, South Tower, 1 CNN Center, Atlanta, Ga. 30303-2705; 656-3875.

Every owner needs to be aware of the federal and state laws concerning minimum wages. Even if a business is not covered by federal minimum wage laws, it is still subject to the Georgia requirements. Federal information can be obtained from: U.S. Department of Labor, Employment Standards Administration, Wage and Hour Division, Room 105, 1371 Peachtree St. N.E., Atlanta, Ga. 30367; 347-2818. Georgia information comes from: Georgia Department of Labor, Inspection Division, I.B.E.W. Building, Room 525, 501 Pulliam St. S.W., Atlanta, Ga. 30312; 656-3018.

Incorporating a business allows a firm to take advantage of the limited liability of a corporation. A corporation is usually a taxpayer separate from its owners, unless the company decides it wants to be an "S" corporation for special tax consideration. Contact an attorney or accountant for information on just what each designation can mean to the firm.

Legal assistance will be needed to incorpo-

rate. Basically, this involves checking with the Secretary of State to see if the name chosen for the business is available. Typed Articles of Incorporation must then be submitted, along with a fee. Additionally, a notice of incorporation must be published in the official legal newspaper for the county. There is also a fee for this printing. Each business must submit a consent from a person who will act as registered agent for service of process on the corporation. This consent must be filed along with the Articles of Incorporation. The Articles must name at least three directors, unless the corporation will have two or fewer shareholders. For more information, contact: Secretary of State, Corporations Division, 306 West Tower, Floyd Building, Two Martin Luther King Jr. Drive S.E., Atlanta, Ga. 30334; 656-2185.

Trademarks and service marks may be registered under federal laws or state laws. In Georgia, an application form should be filed, along with a \$15 fee and copies of the trademark or service mark. Registration is then good for 10 years. In Georgia, contact: Special Services Division, Secretary of State, Corporations Division, 306 West Tower, Floyd Building, Two Martin Luther King Jr. Drive S.E., Atlanta, Ga. 30334; 656-2861. For federal information, contact: U.S. Department of Commerce, Trademark Office, 2021 Jefferson Davis Highway, Arlington, Va. 22202; (703) 557-3881.

Businesses that use any name other than the owner's, must register this fictitious name with the county as required by the Trade Name Registration Act. This registration requirement does not apply to corporations doing business under their corporate names or to those practicing any profession under a partnership name. For information, contact the Clerk of the Superior Court for the county in which the business is located.

Clerk of the Superior Court:  
Clayton County — 477-3389  
Cobb County — 429-3110  
DeKalb County — 371-2836  
Fulton County — 572-2411  
Gwinnett County — 962-1595

And last but not least, if an established business is to be bought, the purchaser must comply with the Bulk Sales Law. This law requires that at least five days before the actual purchase, each creditor must be personally notified of the proposed sale. In counties of more than 200,000 population, this intent must be published at least one time in the county legal newspaper not less than seven days prior to completion of the purchase. An attorney should be consulted about this procedure.

## Small Business Directory

Starting a business is a tremendous responsibility, but the load be lightened by taking advantage of the many resources available to small-business people in the metro Atlanta area. These resources are too numerous to describe in detail, but in addition to the SBA, it includes the Small Business Development Centers, and the Service Corps of Retired Executives.

Listed here is a telephone directory for more information for the small-business person.

### Government Agencies

Department of Commerce — 347-4873  
U. S. Government Bookstore — 331-6947  
Federal Information Center — 331-6891  
Georgia Department of Industry & Trade — 656-3545  
Small Business Administration — 347-2441  
Chambers of Commerce  
Atlanta — 586-8400  
Clayton — 478-6549  
Cobb — 980-2000  
DeKalb — 378-8000  
Gwinnett — 963-5128

### Management/Technical Assistance

Atlanta Economic Development Corporation (AEDC) — 658-7000  
Business Council of Georgia — 223-2264  
Georgia Tech's Economic Development Laboratory — 894-3841  
National Federation of Independent Business (NFIB) — 876-8516  
Atlanta Regional Commission — 656-7715

### Minority Business Development

Atlanta Business League — 584-8126  
Atlanta Minority Business Development Center — 586-0973  
National Alliance of Business (NAB) — 522-9350  
Office of Minority Business Development Agency — 347-4091  
Startups and Expansions  
GA Department of Community Affairs (DCA) — 656-3836  
GA Tech's Advanced Technology Development Center (ATDC) — 894-3575  
GA Vietnam Veterans Leadership Program (GVVLP) — 565-8444  
Greater Atlanta Small Business Project (GRASP) — 572-2897  
Service Corporation of Retired Executives (SCORE) — 347-2441  
GA Tech's Procurement Counseling Center — 894-6121

### Small Business Development Centers

Georgia State University — 651-3551  
Kennesaw College — 423-6450  
Clayton State College — 961-3440  
Gwinnett Technical School — 963-4902

### Miscellaneous

Better Business Bureau — 688-4910  
Credit Bureau of Atlanta — 329-1701  
Dun & Bradstreet — 436-7222  
NCR Corporation — 321-8800



**SBA**

**Business Plan  
for Small  
Construction Firms**







## Summary

**A business plan can provide the owner-manager or prospective owner-manager of a small construction firm with a pathway to profit. This Aid is designed to help an owner-manager in drawing up a business plan.**

**In building a pathway to profit you need to consider the following questions: What business am I in? What do I sell? Where is my market? Who will buy? Who is my competition? What is my sales strategy? How much money is needed to operate my firm? How will I get the work done? What management controls are needed? How can they be carried out? When should I revise my plan? Where can I go for help?**

**No one can answer such questions for you. As the owner-manager you have to answer them and draw up your business plan. The pages of this Aid are a combination of text and workspaces so you can write in the information you gather in developing your business plan—a logical progression from a commonsense starting point to a commonsense ending point.**

## A Note On Using This Aid

It takes time and energy and patience to draw up a satisfactory business plan. Use this Aid to get your ideas and the supporting facts down on paper. And, above all, make changes in your plan on these pages as that plan unfolds and you see the need for changes.

Bear in mind that anything you leave out of the picture will create an additional cost, or drain on your money, when it unexpectedly crops up later on. If you leave out or ignore too many items, your business is headed for disaster.

Keep in mind, too, that your final goal is to put your plan into action. More will be said about this step near the end of this Aid.

## What's In This For Me?

The hammer, trowel, pliers, and wrench are well known tools of the construction industry. They have their various uses and are needed to get the work done. Management is another tool that the owner-manager of a construction firm must use. Each job must be planned and organized if the firm is to run smoothly and efficiently. The business plan will help you increase your skill as a manager.

2

Because of the diversification in the construction industry, you may be engaged in residential, commercial, or industrial construction. You may be either a general or specialty contractor. But, the same basic managerial skills are needed. This plan will serve as a guide to the various areas that you as a manager will be concerned with. As you work through this plan, adapt it to your own particular needs.

When complete, your business plan will help guide your daily business activities. When you know where you want to go, it is easier to plan what you must do to get there. Also, the business plan can serve as a communications device which will orient key employees, suppliers, bankers, and whoever else needs to know about your goals and your operations.

Whether you are just thinking about starting your own firm or have already started, the business plan can help you. As your skill as a manager increases so will the number of jobs you can effectively control. The careful completion of this plan may point out your limitations. This is important. To be a successful contractor you must not only know your business thoroughly, but must also know your limitations and seek professional advice in these areas.

## Why Am I In Business?

Most contractors are in business to make money and be their own boss. Very important reasons. But, don't forget, no one is likely to stay in business unless you also satisfy a consumer need at a competitive price. Profit is the reward for satisfying consumer needs in a competitive economy.

In the first years of business, your profits may seem like a small return for the long hours, hard work, and responsibility of being the boss. But there are other rewards associated with having your own business. For example, you may find satisfaction in helping to put groceries on your employees' tables. Or, maybe your satisfaction will come from building a business you can pass on to your children.

Why are you in business? \_\_\_\_\_

\_\_\_\_\_

## What Business Am I In?

At first glance this may seem like a rather silly question. You may say, "If there is one thing I'm sure of, it's what business I'm in." But wait. Let's look further into the



question. Suppose you say, "I build houses." Are you a speculative or custom builder? Are you a remodeler? Are you a subcontractor? Can you schedule a complete job and make money? By planning according to this decision, you should realize the value of this type of thinking in dollars.

Consider this example. Bob Rogers\* started a small construction business shortly after World War II. Because of Mr. Rogers' skill and talent for design, he directed all his activity toward building taverns. There was enough call for this type of building to keep him and his crew busy until the early 60's. Then sales began to fall off.

By moving his shop to smaller quarter with less overhead and by laying off half his crew, he was able to maintain his business to his satisfaction the rest of his life. After his death, his son examined the situation and decided that he wasn't really in the business of building commercial bars. He was in the business of custom finishing.

Today his business is prospering. He is building cabinets and small bars for private homes. His company also does other finishing work which requires the craftsmanship his crew is capable of. In the space below, state what business you're really in.

\_\_\_\_\_

\_\_\_\_\_

What are your reasons for this opinion? \_\_\_\_\_

\_\_\_\_\_

## Marketing

When you have decided what sort of construction business you're really in, you have made your first marketing decision. Now, in order to sell your service or product, you must face other marketing decisions.

Your marketing objective is to find enough jobs at the right times to provide a profitable continuity for your business. Your job starts must be coordinated to eliminate the down time between jobs. In other words, you want to get enough jobs, starting at the right times, to keep from being broke between jobs.

Unless an individual can come up with enough ideas to keep a crew working 12 months a year, maybe he or she is not ready for a construction business.

\*All names in Aids are fictitious.

### Where Is Your Market?

Describe your market area in terms of customer profile (age, school needs, income, and so on) and geography. For example, if you are a custom builder, you may decide to build homes in the \$80,000 to \$130,000 price range. This would mean that your customers will have to have incomes in the middle to upper-middle class ranges. You may also decide that you can profitable build these homes on the owner's lot if it is located within a radius of 30 miles from your office. (The significance of a customer profile is that it will help you narrow your advertising to those media that will reach the potential customer you have profiled.) In the space below describe your market in terms of customer profile and geography.

| My Product | Types of Customers | Location of Customers |
|------------|--------------------|-----------------------|
| _____      | _____              | _____                 |
| _____      | _____              | _____                 |

Now that you have described what you want in terms of customer and location, what is it about your operation that will make these people want to buy your service? For instance, quality work, competitive prices, guaranteed completion dates, effective advertising, unique design, and so on.

Write your answer here. \_\_\_\_\_

\_\_\_\_\_

### Advertising

You have determined what it is you're marketing, who is going to buy it, and why they're going to buy it. Now you have to decide on the best way to tell your prospective customers about your product.

What should your advertising tell prospective customers? \_\_\_\_\_

\_\_\_\_\_

What form should your advertising take? Ask the local media (newspapers, radio and television stations, and printers of direct mail pieces) for information about their services and the results they offer for your money.

How you spend advertising money is your decision, but don't fall into the trap that snares many advertisers. As one consultant describes this pitfall: It is amazing the way many business managers consider themselves experts on advertising copy and media selection without any experience in these areas.



The following workblock should be useful in determining what advertising is needed to sell your construction service.

| Form of Advertising | Size of Audience | Frequency of Use | Cost of A single ad | Estimated Cost |
|---------------------|------------------|------------------|---------------------|----------------|
| _____               | _____            | _____ x          | \$ _____            | - \$ _____     |
| _____               | _____            | _____ x          | \$ _____            | - \$ _____     |
| _____               | _____            | _____ x          | \$ _____            | - \$ _____     |
| _____               | _____            | _____ x          | \$ _____            | - \$ _____     |
|                     |                  |                  | Total \$            | _____          |

### Competition

The competition in the construction industry often results in low profit margins. However, if you are just starting or are a relatively small firm, this does not put you at a disadvantage. The smaller firm can often compete with the bigger outfit because of lower overhead expense. For example, your office may be in your home, saving that expense. You can often work right out of your truck, saving the expense of a field office.

Competition is largely price competition, although a good reputation for quality and efficiency is beneficial. But, the result of any competition is a high failure rate for poor planners and poor performers. This points out the need for careful planning, particularly in the areas of estimating and bidding.

In order to see what you are up against competition-wise, answer the following questions so you can plan accordingly.

Who will be your major competitors? \_\_\_\_\_

How will you compete against them? \_\_\_\_\_

### Sales Strategy

The market for the construction industry is unique in many ways. As a contractor you will find your market to be dependent on such variables as the state of the economy, local employment stability, the seasonality of the work, labor relations, good subcontractors and interest rates. Also, as a contractor, you will find that you are unavoidably dependent on others, such as customers or financing institutions for payment, and other contractors for performance of their work. You will also want to take your cash flow into consideration when you estimate and bid on a job. The money must come in time to meet your own obligations.

### Estimating

Whether an owner-manager in the construction business succeeds—makes a profit or not—depends to a great extent on bidding practices. Therefore, you must make careful and complete estimates.

Many of the more successful contractors attribute their success to their estimating procedures. They build the job on paper before they submit a bid. In doing this, they break the job down into work units and pieces of material. Then, they assign a cost to each item. The total of these costs will be the direct construction cost. You must also figure on the indirect costs of a job. For instance, you will have overhead expenses such as the cost of maintaining your office, trucks, license fees, and so on. The estimate should also consider any interest charges you will pay on money you borrow to get the job under way. You have insurance fees to pay, surety bond premiums, travel expenses, advertising costs, office salaries, lawyer's fees, and so on. These must also be paid out of your gross income.

Trade associations, as one of their services, often provide their members with a package of business forms. The cost estimate form would be included in this package. The obvious advantage in using these forms is that they are specifically designed for the particular trade.

Regardless of what estimate form you use, it should include such headings as "activity," "material," "labor," "subcontracts," and "estimated cost." And it should have areas for direct construction costs, indirect construction costs, overhead, and profit.

In addition, a column for the actual cost compared to the estimated cost of a specific work item will make this form an invaluable record. Here you would have a handy reference to evaluate the profitability of a job after it is complete. It would show you where your estimate was high or low, and enable you to adjust future bids on similar projects. This added column will also be necessary when it comes time for your financial accounting.

### Bidding

Your decision to bid or not to bid on a particular job should be determined by several factors. First, do you have the capacity to complete the job on schedule and according to specifications. Beware of overextending yourself out of business. You have to operate within your known capabilities. On any job, you must follow all the details of the work yourself, or find competent supervision.



## Bonding

The practice of bonding has been a traditional way of life for anyone engaged in contract construction. Bonding companies provide bonds for a certain percentage of the contract price. There are three main types of bonds:

- (1) Bid bonds assure that the bidder is prepared to perform the work according to the terms of the contract if successful in the bid.
- (2) Performance bonds assure completion of the job according to plans and specifications.
- (3) Payment bonds assure anyone dealing with the bonded contractor that they will be paid.

The effect that bonding companies have had on contractors is evident in the area of competition. The customer, by requiring that the contractor is bonded, is more or less assured of adequate completion of the job. Therefore, contractors are compared on a basis of price. Also, banks are often more lenient to bonded contractors.

Bonding companies usually require the contractor to have proven experience and the organizational financial capacity to complete the project. This can be a real stumbling block to the new construction firm.

With the widespread use of bonding requirements, the competition that is generated often leads the inexperienced contractor to submit bids that are unrealistically low. One or two such mistakes often can spell bankruptcy.

Will you need bonding \_\_\_\_\_ often, \_\_\_\_\_ occasionally, \_\_\_\_\_ seldom?

Where will you get your bond? \_\_\_\_\_

What will the terms be? \_\_\_\_\_

The Small Business Administration has a surety bond program designed to help small and emerging contractors who might have previously been unable to get bonding. SBA is authorized to guarantee up to 90 percent of losses incurred under bid, payment, or performance bonds on contracts up to \$500,000. Application for this assistance is available from any SBA field office.

## Planning the Work

When your marketing efforts result in jobs to be done, the problem becomes one of production. How will you plan the work so that the job gets done on time?

No matter how you plan the work, your plan should assist you in two specific ways: (1) it should help you maintain your production schedule, and (2) it should allow you to adjust production to meet changed conditions, such as bad weather.

In planning the work, keep in mind two things: (1) the timing of starts, and (2) the timing of the various steps in the construction of your company. If you have sufficient help and sufficient supervisory personnel, it will be possible for you to engage in as many projects as you can control. The size and nature of the job must be considered here also.

The timing of the steps of constructions (the work scheduling) will show the various operations in sequence and assign a working day designation to each with a space for the calendar day designation. Several operations may be in progress simultaneously. Such a work schedule will show at a glance whether the work is progressing at the right time. Many companies offer commercial scheduling boards designed for this purpose.

Below is a partial work schedule to demonstrate how yours may be set up. Note that there is a column that can be filled in with either a solid mark or an "X" to indicate either partial or completed work. When you look at a particular calendar day, an "X" next to it would indicate that you're on schedule. An open square indicates a delay. Here, then, is a convenient way to see trouble spots that are causing delays and it gives you an opportunity to take corrective action.

### Working Day

| Activity            | Start | Finish | Calendar Day | Complete                            |
|---------------------|-------|--------|--------------|-------------------------------------|
| 1. Layout           | 1     | 1      | 15           | <input checked="" type="checkbox"/> |
| 2. Foundation Forms | 1     | 2      | 16           | <input checked="" type="checkbox"/> |
| 3. Foundation Pour  | 3     | 3      | 19           | <input checked="" type="checkbox"/> |

(indicates  $\frac{3}{4}$  complete)

You should save your work schedules. They will form the basis for future estimates. For example, if you are estimating a particular job, you have information on the steps of production, an indication of what materials you'll need and when you'll need them, an indication of how long the job will take, and any peculiarities that may affect the completion of the job. When you consider all these things, you'll be more likely to submit an accurate bid.





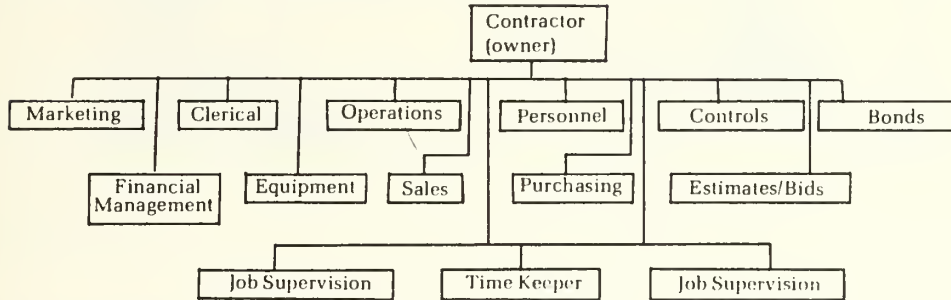
By carefully keeping such records, you will also have an indication of how many workers you will need. Perhaps, if the work falls behind schedule, you may need to bring more workers to the job to assure scheduled completion and avoid a possibly larger financial loss from penalization, if that is called for in your contract. Also, such records will give you an indication of the organizational structure you may need for your firm.

company grows you will not be able to do all the work. You have to delegate work, responsibility, and authority. The organization chart is a useful device in getting this done. It shows quite clearly who is responsible for the major activities of your business.

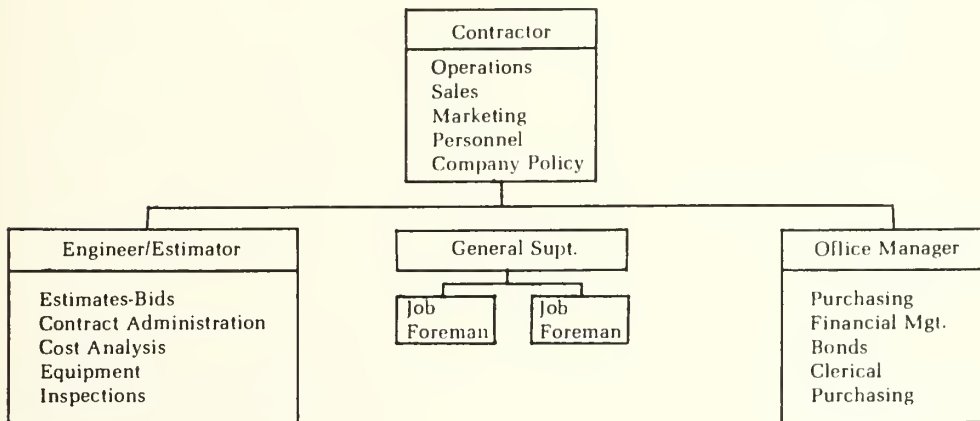
At first, many construction companies are one man shows. It is up to the owner to do almost everything. In this case the organization chart might look something like this:

## Getting the Work Done

If your firm is going to run efficiently, you will need organization. Organization is essential because as your

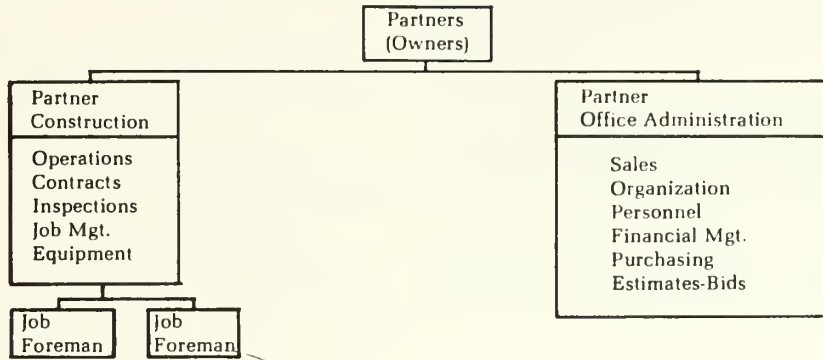


As the company grows, perhaps specialists are added, such as an engineer/estimator, an office manager, and a general superintendent. The organization chart then begins to look something like this:





Often, people with complementary experience and skills, such as work experience and office experience will form a partnership. The organization chart will look like this:



Draw an organization chart for your company.



## What are Your Personnel Requirements?

Will you carry a permanent crew or hire workers as the need arises? \_\_\_\_\_

Will you use union or nonunion labor? \_\_\_\_\_

How many workers will you need? \_\_\_\_\_

What is the hourly rate you will pay? \_\_\_\_\_

What will fringe benefits cost? \_\_\_\_\_

Will you supervise the work yourself or hire a foreman?

If you hire a foreman, what will this salary be? \_\_\_\_\_

Will you need clerical help? \_\_\_\_\_ What will it cost? \_\_\_\_\_

## Equipment

What special equipment will you need (assuming that your work force will supply their own hand tools)?

| Equipment | Rent  | Buy   | Your Cost |
|-----------|-------|-------|-----------|
| _____     | _____ | _____ | \$ _____  |
| _____     | _____ | _____ | \$ _____  |
| _____     | _____ | _____ | \$ _____  |
| _____     | _____ | _____ | \$ _____  |
| _____     | _____ | _____ | \$ _____  |

Will you need an office or use your home? \_\_\_\_\_

If you will need an office, what will the rent and other expenses cost? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Put Your Plan Into Dollars

Just as with the other aspects of managing a construction business, the basic unit of financial management is the job. The financial aspects of a job must be planned

8

as carefully as the actual construction. The payment for each job must cover the direct and indirect construction costs as well as the allocated share of overhead.

Accounting requirements will vary from company to company and from trade to trade. Your accountant will help you set up the accounting system which will best meet your needs.

However, you must make the overall plans yourself. You must develop the goals necessary to guide and manage your business. This overview will prove invaluable in establishing a good working relationship with your banker (or other lender) and bonding company.

In your financial planning, the first consideration is where the dollars will come from. In dollars, how much business (sales) will you be able to do in the next 12 months? \$ \_\_\_\_\_

## Expenses

In connection with annual sales volume, you need to think about expenses. For example, if you plan to do \$100,000 worth of work, how much will it cost you to do this amount of business? And even more important, what will be left over as profit at the end of the year?

Profit is your pay. Even if you pay yourself a salary for living expenses, your business must make a profit if it is to continue year after year and pay back the money and time you invest in it. Profit helps your firm to be strong—to have a financial reserve for any lean periods.

The "Expenses Worksheet" is designed to help you figure your yearly expenses. To use this worksheet, you need to get one set of figures—the operating ratios for your line of business. If you don't have these figures, check with the trade association which serves your area of the construction industry.

## Matching Money and Expenses

After you have planned for your month to month expenses, the next question is: Will there be enough money coming in to meet these expenses and to sustain your company in the event that there is down time until your next job?

The cash forecast is a management tool which can eliminate much of the anxiety that can plague you during lean month. Use the worksheet "Estimated Cash Forecast," or ask your accountant to use it, to estimate



the amounts of cash that you expect to flow through your business during the next 12 months.

Remember that the expenses of buying the materials and supplies for a particular job may occur a month or two before a payment is made. The "Estimated Cash Forecast" should show this.

| <b>Estimated Cash Forecast</b>             | <b>Jan</b> | <b>Feb</b> | <b>Mar</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> | <b>Oct</b> | <b>Nov</b> | <b>Dec</b> |
|--------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Expected Available Cash                    |            |            |            |            |            |            |            |            |            |            |            |            |
| Cash Balance                               |            |            |            |            |            |            |            |            |            |            |            |            |
| Expected Receipts                          |            |            |            |            |            |            |            |            |            |            |            |            |
| Job A                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Job B                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Job C                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Bank Loans                                 |            |            |            |            |            |            |            |            |            |            |            |            |
| Total Expected Cash                        |            |            |            |            |            |            |            |            |            |            |            |            |
| Expected Cash Requirements                 |            |            |            |            |            |            |            |            |            |            |            |            |
| Job A                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Job B                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Job C                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Equipment Payments                         |            |            |            |            |            |            |            |            |            |            |            |            |
| Taxes                                      |            |            |            |            |            |            |            |            |            |            |            |            |
| Insurance (including surety bond payments) |            |            |            |            |            |            |            |            |            |            |            |            |
| Overhead                                   |            |            |            |            |            |            |            |            |            |            |            |            |
| Loan Repayments                            |            |            |            |            |            |            |            |            |            |            |            |            |
| Total Cash Required                        |            |            |            |            |            |            |            |            |            |            |            |            |
| Cash Balance                               |            |            |            |            |            |            |            |            |            |            |            |            |
| Total Loans Due to Bank                    |            |            |            |            |            |            |            |            |            |            |            |            |





# 10 Expenses Worksheet

|                                | Sample Figures<br>for Specialty Contractors* | % of<br>Year<br>Sales | Your<br>Annual<br>Sales<br>Dollar | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    | Year    |
|--------------------------------|----------------------------------------------|-----------------------|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                |                                              |                       |                                   | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars | Dollars |
|                                |                                              |                       |                                   | Jan     | Feb     | Mar     | Apr     | May     | Jun     | Jul     | Aug     | Sep     | Oct     | Nov     | Dec     |         |         |         |
| Sales                          | 100 00%                                      |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Cost of Sales                  | 44 45                                        |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Gross Profit                   | 55 55                                        |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Controllable expenses          |                                              |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Outside labor                  | 1 15                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Operating supplies             | 2 34                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Gross wages                    | 22 36                                        |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Repairs and maintenance        | 1 59                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Advertising                    | 1 12                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Contractors                    | 2 04                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Bad debt                       | 0 3                                          |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Administrative and legal       | 4 8                                          |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Miscellaneous expenses         | 1 03                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Total controllable expenses    | 31 56                                        |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Fixed expenses                 |                                              |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Rent                           | 1 00                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Utilities                      | 1 41                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Insurance                      | 1 16                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Taxes and licenses             | 8 5                                          |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Depreciation                   | 1 65                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Total fixed expenses           | 6 18                                         |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Total expenses                 | 37 74                                        |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Net profit (before income tax) | 17 81                                        |                       |                                   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |

\* These percentages are taken from Burdette of Small Business Accounting Corporation of America. These figures are presented only as a sample and refer to specialties contractors with an annual gross volume between \$50,000 and \$100,000. The percentages vary from one business to another.



## Is Additional Money Needed?

In your planning you may find periods when you will be short of cash. For example, when you start a job you will need materials and supplies. Perhaps it may be a month or two before your first payment. What do you do in the interim if trade credit will not completely satisfy your cash needs?

Your bank may be able to help with a short term loan. If a banker is to lend you money on either a short or long term, he or she will want to know whether your company's financial condition is weak or strong. The bank officer will ask to see a balance sheet.

A blank balance sheet is included. Even if you don't need to borrow, use it. Or, have your accountant use it to draw the "picture" of your firm's financial condition. Moreover, if you don't need to borrow money, you may want to show your plan to the bank that handles your company's account. It is never too early to build good relations with your banker. For the time may come when you will have to borrow.

### Current Balance Sheet

for  
(name of your firm)

as of \_\_\_\_\_  
(date)

#### Assets

|                                   |          |
|-----------------------------------|----------|
| Current Assets                    | \$ _____ |
| Cash                              | \$ _____ |
| Receivables                       | \$ _____ |
| Cost of jobs in progress          | \$ _____ |
| Inventories of supplies and tools | \$ _____ |
| Total Current Assets              | \$ _____ |
| Fixed Assets                      | \$ _____ |
| Other Assets                      | \$ _____ |
| Total Assets                      | \$ _____ |

#### Liabilities

|                                   |          |
|-----------------------------------|----------|
| Current Liabilities               | \$ _____ |
| Notes payable                     | \$ _____ |
| Accounts payable                  | \$ _____ |
| Miscellaneous current liabilities | \$ _____ |
| Total Current Liabilities         | \$ _____ |
| Equipment Contracts               | \$ _____ |
| Owner's equity                    | \$ _____ |
| Total Liabilities                 | \$ _____ |

## Control and Feedback

To make your plan work you will need feedback at the various stages of your management process. When you approach a job as a manager, you will need to plan the job, direct the job, and control the job. Throughout this process, you will need adequate financing. Thus, the management controls you set up should supply you with the information you need to keep your operation "on the money."

During the planning stage, you will need to carefully calculate your bid estimate. To direct the job, you will need your job cost analysis to make sure that the job is going to make a profit. And, to control the job, your forces must be organized. This requires the organized production of any given job (work schedule), competent personnel, and your personal follow-up to insure efficient performance.

## Is Your Plan Workable?

Now that you've planned this far, step back and take a look at your plan. Is it realistic? Can you do enough business to make a living.

Now is the time to revise your plan if it isn't workable, not after you've invested your time and money. If you feel that some revisions are needed before you start your own business, then make them. Go back to the cash flow and adjust the figures. Better, show your plan to someone who has not had a hand in making out your business plan. Your banker, contact man at SBA, or any outside advisor may be able to point out your strong points which if emphasized could turn into dollars.

If you have strong doubts about your business or your ability to run it, it might be better to delay going into business until you feel as comfortable with the tools of management as you are with the tools of your trade.

## Keeping Your Plan Up To Date

How many people in this world can predict the future? Very few indeed! You can expect things to change. You can expect circumstances to be different from what you expected. This is only natural. The difference between successful and unsuccessful planning is often only the ability to keep alert and watch for changes. Stay on top of changing conditions and adjust your plan accordingly.

In order to adjust your plan to account for changes, an owner-manager must:



1. Be alert to the changes that come about in your industry, your market, and in your customers.
2. Check your plan against these changes.
3. Determine what revisions, if any, are needed in your plan.

Whatever methods you use to keep up with changing conditions is up to you. Once a month or so, go over your plan. See whether it needs adjusting. If revisions are needed, make them and put them into action.

### Put Your Plan Into Action

When your plan is as near on target as possible, you are ready to put it into action. Keep in mind that action is the difference between a plan and a dream. If a plan is

not acted upon, it is of no more value than a pleasant dream that evaporates over the breakfast coffee.

The first action step would be acquiring enough capital to get started. Do you already have the money? Will you borrow it from friends, relatives, or a bank? Where and when will you hire competent employees?

What else needs to be done? Look for positive action steps that will get your business rolling. For example, where and how will you get whatever licenses you need to be a contractor? (These requirements differ from state to state. A summary of licensing, prequalification, and tax information may be found in *Summary of State Regulation and Taxes Affecting General Contractors*, published annually by the American Insurance Association.)

In the following space, list the things that you must do to get your business off the drawing board and into action. Give each item a date so that it can be done at the right time.

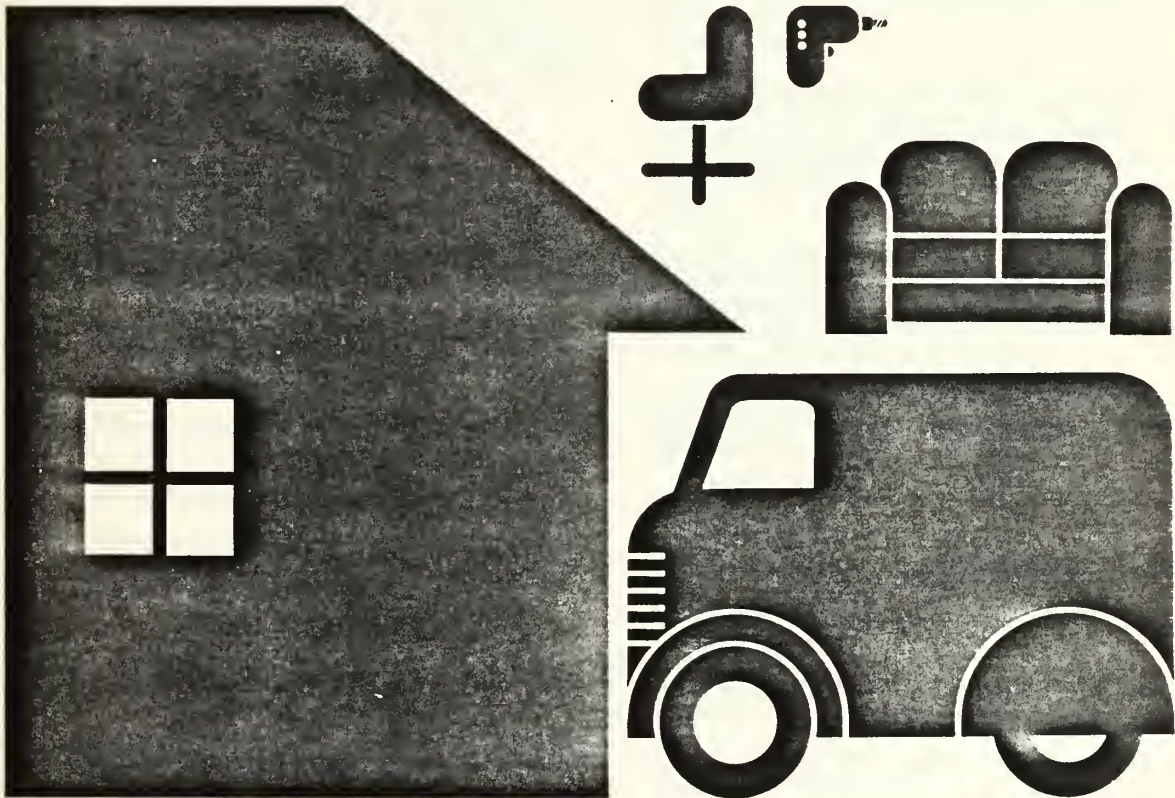
| Action | Completion Date |
|--------|-----------------|
| _____  | _____           |
| _____  | _____           |
| _____  | _____           |



**SBA**

# Should You Lease or Buy Equipment?

By Paul Lerman  
Professor of Business Administration  
Fairleigh Dickinson University  
Rutherford, New Jersey







## Summary

Small businesses have difficulty raising capital—that's no secret. This difficulty (among other reasons) has caused many to look at leasing as an alternative financing arrangement for acquiring the use of assets. All types of equipment leasing—from motor vehicles to computers, from manufacturing machinery to office furniture—have become more and more attractive.

This Aid describes various aspects of the lease/buy decision. It lists advantages and disadvantages of leasing and provides a format for comparing costs of the options.

## What Is a Lease?

A lease is a long term agreement to rent equipment, land, buildings, or any other asset. In return for most—but not all—of the benefits of ownership, the user (lessee) makes periodic payments to the owner of the asset (lessor). The lease payment covers the original cost of the equipment or other asset and provides the lessor a profit.

## Types of Leases

There are three major kinds of leases: the financial lease, the operating lease, and the sale and leaseback.

**Financial leases** are most common by far. A financial lease is usually written for a term not to exceed the economic life of the equipment. You will find that a financial lease usually provides that:

Periodic payments be made,

Ownership of the equipment reverts to the lessor at the end of the lease term,

The lease is noncancellable and the lessee has a legal obligation to continue payments to the end of the term, and

The lessee agrees to maintain the equipment.

The **operating lease**, or "maintenance lease," can usually be cancelled under conditions spelled out in the lease agreement. Maintenance of the asset is usually the responsibility of the owner (lessor). Computer equipment is often leased under this kind of lease.

The **sale and leaseback** is similar to the financial lease. The owner of an asset sells it to another party and simultaneously leases it back to use it for a specified term. This arrangement lets you free the money tied up in an asset for use elsewhere. You'll find that buildings are often leased this way.

You may also hear leases described as net leases or gross leases. Under a **net lease** the lessee is responsible for expenses such as those for maintenance, taxes, and insurance. The lessor pays these expenses under a **gross lease**. Financial leases are usually net leases.

Finally, you might run across the term **full payout lease**. Under a full payout lease the lessor recovers the original cost of the asset during the term of the lease.

## Kinds of Lessors

As the use of leasing has increased as a method for businesses to acquire the use of equipment and other assets, the number of companies in the leasing business has increased dramatically. Leasing is now a billion dollar industry.

Commercial banks, insurance companies, and finance companies do most of the leasing. Many of these organizations have formed subsidiaries primarily concerned with equipment leasing. These subsidiaries are usually capable of making lease arrangements for almost anything.

In addition to financial organizations, there are companies which specialize in leasing. Some are engaged in general leasing, dealing with just about any kind of equipment. Others specialize in particular equipment, such as trucks or computers, for example.

Equipment manufacturers are also occasionally in the leasing business. Of course, they usually lease only the equipment they manufacture.

## Advantages of Leasing

The obvious advantage to leasing is acquiring the use of an asset without making a large initial cash outlay. Compared to a loan arrangement to purchase the same equipment, a lease usually:

Requires no downpayment, while a loan often requires 25 percent down;

Requires no restriction on a company's financial operations, while loans often do;



Spreads payments over a longer period (which means they'll be lower) than loans permit; and

Provides protections against the risk of equipment obsolescence, since the lessee can get rid of the equipment at the end of the lease.

There may also be tax benefits in leasing. Lease payments are deductible as operating expenses if the arrangement is a true lease (and the Internal Revenue Service agrees it is). Ownership, however, usually has greater tax advantages through the investment tax credit and depreciation. Naturally, you need to have enough income and resulting tax liability to take advantage of those two benefits.

The investment tax credit may work to the benefit of the lessee as well as the lessor. The credit is a dollar for dollar reduction in federal income taxes, equal to 10 percent of the cost of the equipment in the year the equipment is put into use. While the lessor usually takes the tax credit, it may pass part of the benefit on to the lessee in the form of a reduced lease payment.

Leasing has the further advantage that the leasing firm has acquired considerable knowledge about the kinds of equipment it leases. Thus, it can provide expert technical advice based on experience with the leased equipment.

Finally, there is one further advantage of leasing that you probably hope won't ever be of use to you. In the event of bankruptcy, claims of the lessor to the assets of a firm are more restricted than those of general creditors.

## Disadvantages of Leasing

In the first place, leasing usually costs more because you lose certain tax advantages that go with ownership of an asset. Leasing may not, however, cost more if you couldn't take advantage of those benefits because you don't have enough tax liability for them to come into play.

Obviously, you also lose the economic value of the asset at the end of the lease term, since you don't own the asset. Lessees have been known to grossly underestimate the salvage value of an asset. If they had known this value from the outset, they might have decided to buy instead of lease.

Further, you must never forget that a lease is a long-term legal obligation. Usually you can't cancel a lease agreement. So, if you were to end an operation that us-

ed leased equipment, you might find you'd still have to pay as much as if you had used the equipment for the full term of the lease.

## Federal Tax Treatment of Leases

Full lease payments are deductible as operating costs. You can make these deductions only if the Internal Revenue Service finds that you have a true lease. You cannot take a full deduction for a "lease" that's really an installment purchase.

Although each lease arrangement may be different, there are some general guidelines to meet:

In no way should any portion of the payment be construed as interest.

Lease payments must not be large compared to those that would be required to achieve ownership.

Any renewal option at lease end must be on terms equivalent to what a third party would offer.

Purchase options must be at amounts comparable with fair market value.

## Accounting Treatment of Leases

Historically, financial leases were "off the balance sheet" financing. That is, lease obligations often were not recorded directly on the balance sheet, but listed in footnotes, instead. Not explicitly accounting for leases frequently resulted in a failure to state operational assets and liabilities fairly.

In 1977 the Financial Accounting Standards Board (FASB), the rule-making body of the accounting profession, required that capital leases be recorded on the balance sheet as both an asset and a liability. This was in recognition of the long-term nature of a lease obligation.

## Cost Analysis of Lease v. Loan/Purchase

You can analyze the costs of the lease versus purchase problem through discounted cash flow analysis. This analysis compares the cost of each alternative by considering: the timing of the payments, tax benefits, the in-



interest rate on a loan, the lease rate, and other financial arrangements.

To make the analysis you must first make certain assumptions about the economic life of the equipment, salvage value, and depreciation. The assumptions for the sample problem in this Aid are shown in Figure 1. Figure 2 is the analysis of the lease alternative, and Figure 4 is an analysis of the borrow and buy option.\*

\* A straight cash purchase using a firm's existing funds will almost always be more expensive than the lease or loan/buy options because of the loss of use of the funds. Besides, most small firms don't have the large amounts of cash needed for major capital asset acquisitions in the first place.

Figure 1  
Example Assumptions

Equipment Cost: \$60,000

Estimated Economic Life: 10 years

Lease Terms: 8 annual\* payments of \$10,363.94 (Apr 10.5%). First payment due upon delivery. Investment tax credit to lessor. Lessee maintains equipment.

Loan Terms: 5 years, 75% financing at 10% (Apr). 5 annual\* payments of \$11,870.89. First payment due at end of first year.

Taxes: Lessee tax rate 50%. Method of depreciation for tax purposes is straight line.

Other: Equipment needed for term of lease, 8 years. If firm purchases equipment, it can be sold at end of 8 years for book value. Average after tax cost of capital for lessee is 9%.

\* Payments have been annualized to simplify calculations. Payments are usually made monthly.

Figure 2  
Evaluation of Lease Cost

| (1)<br>End of<br>Year | (2)<br>Lease<br>Payment | (3)<br>(0.50x2)<br>Tax Saving | (4)<br>(2-3)<br>Net Cash Outlay | (5)<br>Discount<br>Factor | (6)<br>(4x5)<br>Net Present Value |
|-----------------------|-------------------------|-------------------------------|---------------------------------|---------------------------|-----------------------------------|
| 0                     | \$10,363.94             | \$5,181.97                    | \$5,181.97                      | 1.000                     | \$5,181.97                        |
| 1                     | 10,363.94               | 5,181.97                      | 5,181.97                        | 0.952                     | 4,933.24                          |
| 2                     | 10,363.94               | 5,181.97                      | 5,181.97                        | 0.907                     | 4,700.05                          |
| 3                     | 10,363.94               | 5,181.97                      | 5,181.97                        | 0.864                     | 4,477.22                          |
| 4                     | 10,363.94               | 5,181.97                      | 5,181.97                        | 0.823                     | 4,264.76                          |
| 5                     | 10,363.94               | 5,181.97                      | 5,181.97                        | 0.784                     | 4,062.66                          |
| 6                     | 10,363.94               | 5,181.97                      | 5,181.97                        | 0.746                     | 3,865.75                          |
| 7                     | 10,363.94               | 5,181.97                      | 5,181.97                        | 0.710                     | 3,684.38                          |
| 8                     | —                       | —                             | —                               | —                         | —                                 |
|                       |                         |                               |                                 |                           | \$35,170.03                       |

Net Present Value of Costs of Leasing

To evaluate a lease you must first find the net cash outlay (not cash flow) in each year of the lease term. You find these amounts by subtracting the tax savings (which in the example are 50 percent of the payment) from the lease payment (see column 3 of Figure 2). This calculation gives you the net cash outlay for each year of the leases (column 4, Figure 2).

Each year's net cash outlay must next be discounted to take into account the time value of money. This discounting gives you the present value of each of the amounts.

The present value of an amount of money is the sum you would have to invest today at a stated rate of interest to have that amount of money at a specified

future date. Say someone offered to give you \$100 five years from now. How much could you take today and be as well off?

Common sense tells you you could take less than \$100, because you'd have the use of the money for the five year period. Naturally, how much less you could take depends on the interest rate you thought you could get if you invested the lesser amount. For example, to have \$100 five years from now at six percent compounded annually, you'd have to invest \$74.70 today. At 10 percent, you could take \$62.10 now and have the \$100 at the end of five years.

Thus, the present value of the net outlay under the lease (\$5,181.97 after tax savings) at the end of year six of the



lease term, for example, is something less than \$5,181.97. For the example in this Aid the appropriate interest rate for discounting the lease payment is the after tax cost (50 percent tax rate, remember) of the loan (set at 10 percent)—or five percent (.50 x 10% = 5%).

This low rate of interest is used because of the certain nature (you know exactly what they'll be) of the payments under a lease contract. So, at an annually compounded five percent interest rate, you would have to invest \$3,865.75 today to have \$5,181.97 at the end of six years.

Fortunately there are tables (Figure 3 is a very modest example) which provide the discount factors for present value calculations. In Figure 3 you will note that the factor for the present value of \$1 six years from now at five percent is .746. This factor (.746) times the after tax lease payment outlay (\$5,181.97) equals \$3,865.75, or exactly the amount you would have to invest today at five percent interest compounded annually to have \$5,181.97 six years hence. There are also relatively inexpensive special purpose pocket calculators programmed to make these calculations.

Figure 3  
Present Value of \$1

| Year * | 1%   | 2%   | 3%   | 4%   | 5%   | 6%   | 7%   | 8%   | 9%   | 10%  |
|--------|------|------|------|------|------|------|------|------|------|------|
| 1      | .990 | .980 | .971 | .962 | .952 | .943 | .935 | .926 | .917 | .909 |
| 2      | .980 | .961 | .943 | .925 | .907 | .890 | .873 | .857 | .842 | .826 |
| 3      | .971 | .942 | .915 | .889 | .864 | .840 | .816 | .794 | .772 | .751 |
| 4      | .961 | .924 | .889 | .855 | .823 | .792 | .763 | .735 | .706 | .683 |
| 5      | .951 | .906 | .863 | .822 | .784 | .747 | .713 | .681 | .650 | .621 |
| 6      | .942 | .886 | .836 | .790 | .746 | .705 | .666 | .630 | .596 | .564 |
| 7      | .933 | .871 | .813 | .760 | .711 | .665 | .623 | .583 | .547 | .513 |
| 8      | .923 | .853 | .789 | .731 | .677 | .627 | .582 | .540 | .502 | .467 |
| 9      | .914 | .837 | .766 | .703 | .645 | .592 | .544 | .500 | .460 | .424 |
| 10     | .905 | .820 | .744 | .676 | .614 | .556 | .506 | .453 | .422 | .386 |

\* Periods can be any time period; they do not have to be years.

Why bother with making these present value calculations? Well, you've got to make them to compare the actual cash flows over the time periods. You simply can't realistically compare methods of financing without taking into account the time value of money. It may seem confusing and complex at first, but if you work through the example, you'll begin to see that the technique isn't difficult—just sophisticated.

Figure 2 shows you the present value calculations over the full term of the proposed lease. The sum of the discounted cash flows, \$35,170.03, is called the **net present value of the cost of leasing**. It is this figure that will be compared with the final sum of the discounted cash flows for the loan and purchase alternative.

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Evaluation of the borrow/buy option is a little more complicated because of the tax benefits that go with ownership through the investment tax credit, loan interest deductions, and depreciation. In Figure 4, the steps in the calculation are shown above each column head. The interest portion of each loan payment is found by multiplying the loan interest rate (10% here) by the outstanding loan balance for the preceding period.

Note that in the last three years of the analyzed period the cash flow is positive, coming from the tax saving on depreciation and, in the eighth year, from depreciation and the assumption that the asset could be sold for a salvage value of \$12,000. Since these amounts in the last three years are coming in, they are subtracted after discounting from the amounts in the first five years (cash flowing out) to get the **net present value of costs of purchasing**.

As noted earlier, the salvage value is one of the advantages of ownership. It must be considered in making the comparison; however, it is discounted at a higher rate (the firm's assumed average cost of capital, 9%). This rate is used because the salvage value is not known with any certainty, as are the loan payment, depreciation, and interest payments.

When you compare the two alternatives you see that, purely on the basis of the numbers, the buy option looks like the least costly approach. The major difference in cost, of course, comes from the salvage value. If you ignore that value (a highly conservative approach), the alternatives are very close in their net present value of costs. Naturally, it's possible that salvage costs for real assets could be very high or be next to nothing. Salvage value assumptions need to be made carefully.

Thus, while this sort of analysis is useful, you can't make a lease/buy decision solely on cost analysis figures. The advantages and disadvantages discussed earlier in this Aid, while tough to quantify, may outweigh differences in cost—especially if costs are reasonably close.

## Look Before You Lease

A lease agreement is a legal document. It carries a long-term obligation. You must be thoroughly informed of just what you're committing yourself to. Find out the lessor's financial condition and reputation. Be reasonably sure that the lease arrangements are the best you can get, that the equipment is what you need, and that the term is what you want. Remember, once the





agreement is struck, it's just about impossible to change it.

The lease document will spell out the precise provisions of the agreement. Agreements may differ, but the major items will include:

The specific nature of the financing agreement,

Payment amount,

Term of agreement,

Disposition of the asset at the end of the term,

Schedule of the value of the equipment for insurance and settlement purposes in case of damage or destruction,

Who gets the investment tax credit,

Who is responsible for maintenance and taxes,

Renewal options,

Cancellation penalties, and

Special provisions.

Figure 4  
Evaluation of Loan Cost

| (1)         | (2)           | (3)        | (4)                            | (5)                            | (6)          | (7)                          | (8)                      | (9)             | (10)                                           |
|-------------|---------------|------------|--------------------------------|--------------------------------|--------------|------------------------------|--------------------------|-----------------|------------------------------------------------|
| End of Year | Payment       | Interest   | Principal Repayment<br>(2 - 3) | Outstanding Balance<br>(5 - 4) | Depreciation | Tax Savings<br>.05 x (6 + 3) | Net Cash Flow<br>(2 - 7) | Discount Factor | Net Present Value<br>(8 x 9)                   |
| 0           | \$ 15,000.00  |            |                                | \$45,000.00                    |              | \$6,000.00*                  | \$ 9,000.00              | 1.000           | \$ 9,000.00                                    |
| 1           | 11,670.89     | \$4,500.00 | \$ 7,370.89                    | 37,629.11                      | \$6,000.00   | 5,250.00                     | 8,820.89                 | 0.952           | 5,303.09                                       |
| 2           | 11,870.89     | 3,726.91   | 6,107.96                       | 29,521.13                      | 6,000.00     | 4,681.48                     | 6,989.43                 | 0.907           | 8,339.41                                       |
| 3           | 11,670.89     | 2,952.11   | 6,918.76                       | 20,602.35                      | 6,000.00     | 4,478.06                     | 7,394.83                 | 0.864           | 6,369.13                                       |
| 4           | 11,870.89     | 2,060.24   | 9,810.88                       | 10,791.89                      | 6,000.00     | 4,030.12                     | 7,840.77                 | 0.823           | 6,452.95                                       |
| 5           | 11,670.88     | 1,079.17   | 10,791.89                      |                                | 6,000.00     | 3,539.59                     | 6,331.27                 | 0.784           | 6,531.72                                       |
| 6           |               |            |                                |                                | 6,000.00     | 3,000.00                     | (3,000.00)               | 0.748           | (2,236.00)                                     |
| 7           |               |            |                                |                                | 8,000.00     | 3,000.00                     | (3,000.00)               | 0.711           | (2,133.00)                                     |
| 8           | (12,000.00)** |            |                                |                                | 6,000.00     | 3,000.00                     | (3,000.00)               | 0.877           | (2,031.00)                                     |
|             |               |            |                                |                                |              |                              | (12,000.00)              | 0.502***        | (6,024.00)                                     |
|             |               |            |                                |                                |              |                              |                          |                 | <b>Net Present Value of Cost of Purchasing</b> |
|             |               |            |                                |                                |              |                              |                          |                 | <b>\$28,580.30</b>                             |

\* Investment tax credit = 0.10 x \$60,000 = \$6,000.

\*\* Salvage value = book value = \$60,000 - 8 x \$6,000 = \$12,000.

\*\*\* Discount factor using average after tax cost of capital.



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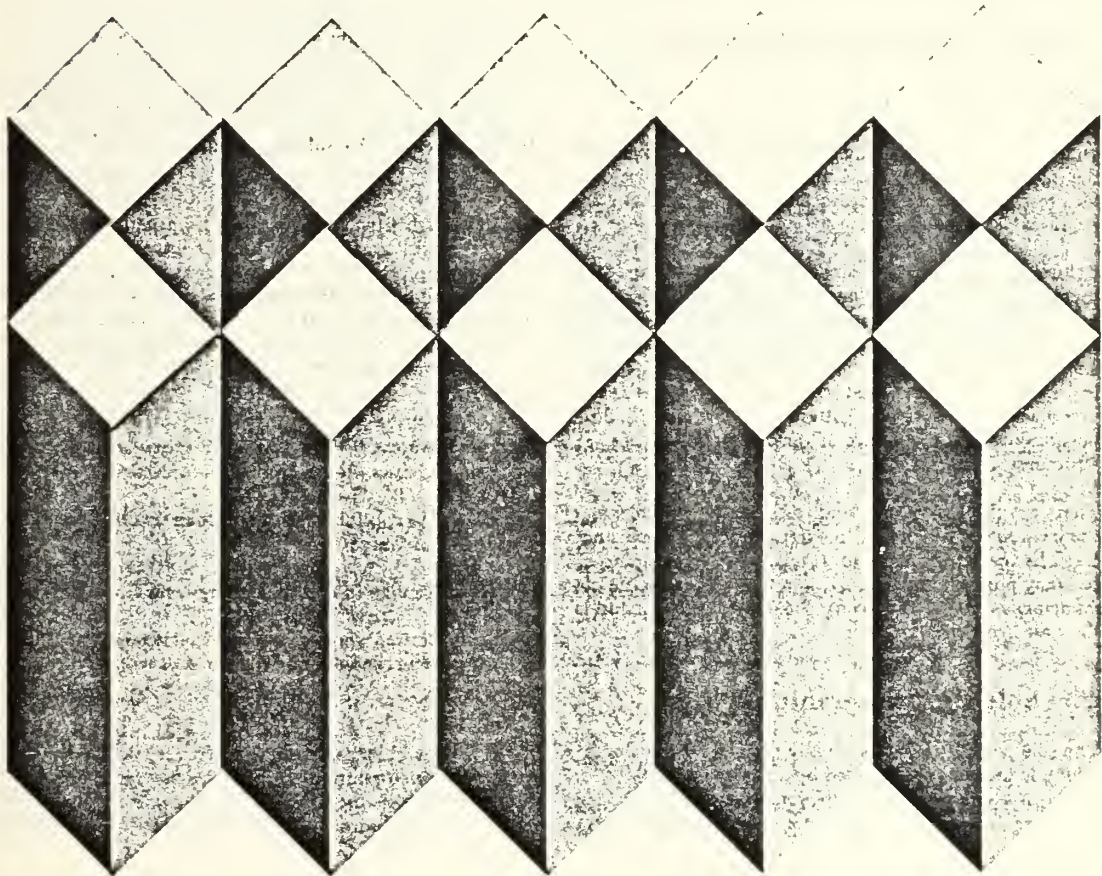
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**SBA**

# Selecting the Legal Structure for Your Firm

By **Antonio M. Olmi**  
Business Management Specialist  
Small Business Administration  
Albuquerque, New Mexico





## Summary

There are many reasons today for owner-managers of small businesses to look at the legal structure of their firms. The changing tax laws and fluctuating availability of capital are just two situations which require alert managers to review what legal structures best meets their needs.

Each form of business organization has its advantages and disadvantages. This Aid seeks to briefly identify them for the owner-manager who wants to know "what questions to ask" when seeking the proper professional advice.

If you were to make an analogy between starting a business and playing a card game, you might say, "The game is just for fun, but business is business." Well, you would be right. But let's consider some important similarities.

The game requires skill, strategy, planning, and, most important, a thorough knowledge of the rules. Going into business requires skill (the knowledge of your craft or trade), and it also requires strategy and planning. Most important, to be successful in business, you must understand the rules (or the laws) by which you must conduct your business. All planning and strategy must consider the multitude of local, state, and federal laws and business practices that govern the operation of the business.

Before you enter the complex arena of business and the myriad of laws which influence your freedom of choice and mobility of action, you must first choose the legal structure for your business that will best suit your needs and the needs of your particular business. In order to intelligently select the legal structure for your business, you must ask yourself, "What are my alternatives?" So, let's now look at the nature of various legal business structures.

There are three principal kinds of business structures: the proprietorship, the partnership, and the corporation. Each has certain general advantages and disadvantages, but they must all be weighted to reflect your specific circumstances, goals, and needs. The sole proprietorship is the first firm we'll consider.

## The Sole Proprietorship

The sole proprietorship is usually defined as a business which is owned and operated by one person. To establish a sole proprietorship, you need only obtain whatever licenses you need and begin operations.

Hence, it is the most widespread form of small business organization.

### Advantages of the Sole Proprietorship

**Ease of formation.** There is less formality and fewer legal restrictions associated with establishing a sole proprietorship. It needs little or no governmental approval and is usually less expensive than a partnership or corporation.

**Sole ownership of profits.** The proprietor is not required to share profits with anyone.

**Control and decision making vested in one owner.** There are no co-owners or partners to consult. (Except possibly your spouse.)

**Flexibility.** Management is able to respond quickly to business needs in the form of day to day management decisions as governed by various laws and good sense.

**Relative freedom from government control and special taxation.**

### Disadvantages of the Sole Proprietor

**Unlimited liability.** The individual proprietor is responsible for the full amount of business debts which may exceed the proprietor's total investment. This liability extends to all the proprietor's assets, such as house and car. Additional problems of liability, such as physical loss or personal injury, may be lessened by obtaining proper insurance coverage.

**Unstable business life.** The enterprise may be crippled or terminated upon illness or death of the owner.

**Less available capital, ordinarily, than in other types of business organizations.**

**Relative difficulty in obtaining long-term financing.**

**Relatively limited viewpoint and experience.** This is more often the case with one owner than with several.

NOTE: A small business owner might very well select the sole proprietorship to begin with. Later, if the owner succeeds and feels the need, he or she can form a partnership or corporation.



## The Partnership

The Uniform Partnership Act, adopted by many states, defines a partnership as "an association of two or more persons to carry on as co-owners of a business for profit." Though not specifically required by the Act, written Articles of Partnership are customarily executed. These articles outline the contribution by the partners into the business (whether financial, material or managerial) and generally delineate the roles of the partners in the business relationship. The following are example articles typically contained in a partnership agreement:

Name, Purpose, Domicile

Duration of Agreement

Character of Partners (general or limited, active or silent)

Contributions by Partners (at inception, at later date)

Business Expenses (how handled)

Authority (individual partner authority in conduct of business)

Separate Debts

Books, Records, and Method of Accounting

Division of Profits and Losses

Draws or Salaries

Rights of Continuing Partner

Death of a Partner (dissolution and winding up)

Employee Management

Release of Debts

Sale of Partnership Interest

Arbitration

Additions, Alterations, or Modifications of Partnership Agreement

Settlements of Disputes

Required and Prohibited Acts

Absence and Disability

Some of the characteristics that distinguish a partnership from other forms of business organization are the limited life of a partnership, unlimited liability of at least one partner, co-ownership of the assets, mutual agency, share of management, and share in partnership profits.

## Kinds of Partners

**Ostensible Partner.** Active and known as a partner.

**Active Partner.** May or may not be ostensible as well.

**Secret Partner.** Active but not known or held out as a partner.

**Dormant Partner.** Inactive and not known or held out as a partner.

**Silent Partner.** Inactive (but may be known to be a partner).

**Nominal Partner (Partner by Estoppel).** Not a true partner in any sense, not being a party to the partnership agreement. However, a nominal partner holds him or herself out as a partner, or permits others to make such representation by the use of his/her name or otherwise. Therefore, a nominal partner is liable as if he or she were a partner to third persons who have given credit to the actual or supposed truth of such representation.

**Subpartner.** One who, not being a member of the partnership, contracts with one of the partners in reference to participation in the interest of such partner in the firm's business and profits.

**Limited or Special Partner.** Assuming compliance with the statutory formalities, the limited partner risks only his or her agreed investment in the business. As long as he or she does not participate in the management and control of the enterprise or in the conduct of its business, the limited partner is generally not subject to the same liabilities as a general partner.

## Advantages of the Partnership

**Ease of formation.** Legal informalities and expenses are few compared with the requirements for creation of a corporation.

**Direct rewards.** Partners are motivated to apply their best abilities by direct sharing of the profits.





**Growth and performance facilitated.** In a partnership, it is often possible to obtain more capital and a better range of skills than in a sole proprietorship.

**Flexibility.** A partnership may be relatively more flexible in the decision making process than in a corporation. But, it may be less so than in a sole proprietorship.

**Relative freedom from government control and special taxation.**

#### **Disadvantages of a Partnership**

**Unlimited liability of at least one partner.** Insurance considerations such as those mentioned in the proprietorship section apply here also.

**Unstable life.** Elimination of any partner constitutes automatic dissolution of partnership. However, operation of the business can continue based on the right of survivorship and possible creation of a new partnership. Partnership insurance might be considered.

**Relative difficulty in obtaining large sums of capital.** This is particularly true of long term financing when compared to a corporation. However, by using individual partners' assets, opportunities are probably greater than in a proprietorship.

**Firm bound by the acts of just one partner as agent.**

**Difficulty of disposing of partnership interest.** The buying out of a partner may be difficult unless specifically arranged for in the written agreement.

## **The Corporation**

The corporation is by far the most complex of the three business structures. For the purpose of this *Aid*, we shall discuss only the general characteristics of the corporation, not its intricacies.

As defined by Chief Justice Marshall's famous decision in 1819, a corporation "is an artificial being, invisible, intangible, and existing only in contemplation of the law." In other words, a corporation is a distinct legal entity, distinct from the individuals who own it.

#### **Formation of the Corporation**

A corporation usually is formed by the authority of a state government. Corporations which do business in

more than one state must comply with the Federal laws regarding interstate commerce and with the state laws, which may vary considerably.

The procedure ordinarily required to form a corporation is that, first, subscriptions for capital stock must be taken and a tentative organization created. Then, approval must be obtained from the Secretary of State in the state in which the corporation is to be formed. This approval is in the form of a charter for the corporation, stating the powers and limitations of the particular enterprise.

#### **Advantages of the Corporation**

**Limitations of the stockholder's liability to a fixed amount of investment.** However, do not confuse corporate liability with appropriate liability insurance considerations.

**Ownership is readily transferable.**

**Separate legal existence.**

**Stability and relative permanence of existence.** For example, in the case of illness, death, or other cause for loss of a principal (officer or owner), the corporation continues to exist and do business.

**Relative ease of securing capital in large amounts and from many investors.** Capital may be acquired through the issuance of various stocks and long term bonds. There is relative ease in securing long term financing from lending institutions by taking advantage of corporate assets and often personal assets of stockholders and principals of guarantors (Personal guarantees are very often required by lenders.)

**Delegated authority.** Centralized control is secured when owners delegate authority to hired managers, although they are often one and the same.

**The ability of the corporation to draw on the expertise and skills of more than one individual.**

#### **Disadvantages of the Corporation**

**Activities limited by the charter and by various laws.** However, some states do allow very broad charters.

**Manipulation.** Minority stockholders are sometimes exploited.

**Extensive government regulations and required local, state, and federal reports.**



**Less incentive if manager does not share in profits.**

**Expense of forming a corporation.**

**Double tax - income tax on corporate net income (profit) and on individual salary and dividends.\***

\*You should be aware, also, of the possibility of selecting subchapter S status (IRC 1371-1379). The purpose of subchapter S is to permit a "small business corporation" to have its income taxed to the shareholders as if the corporation were a partnership. One objective is to overcome the double tax feature of our system of taxing corporate income and stockholder dividends. Another purpose is to permit the shareholders to have the benefit of offsetting business losses incurred by the corporation against the income of the shareholders.

Among the conditions for the making and maintenance of subchapter S election are that the corporation have ten or fewer shareholders, all of whom are individuals or estates, that there be no nonresident alien shareholders, that there be only one class of outstanding stock, that all shareholders consent to the election, and that a specific portion of the corporation's receipts be derived from active business rather than enumerated passive investments. No limit is placed on the size of the corporation's income and assets.

In summary, review the following eight questions:

1. What is the size of the risk? That is, what is the amount of the investors' liability for debts and taxes?
2. What would the continuity (life) of the firm be if something happened to the principal or principals?
3. What legal structure would insure the greatest adaptability of administration for the firm?
4. What are the influence of applicable laws?
5. What are the possibilities of attracting additional capital?
6. What are the needs for and possibilities of attracting additional expertise?
7. What are the costs and procedures in starting?
8. What is the ultimate goal and purpose of the enterprise, and which legal structure can best serve its purposes?

The small businessowner is required to wear many hats, but none can be expected to be a lawyer, certified public accountant, marketing specialist, production engineer, environmental specialist, etc. Therefore, you should get the facts before making decisions. When necessary and if possible, you should also get professional counsel to help you avoid misunderstanding technical or legal issues and avoid making bad decisions and false starts that require backtracking and added expense. This is especially true when you are deciding what legal form to adopt. This *Aid* has presented an introduction to the options and guidelines for selecting the best legal structure for your business.



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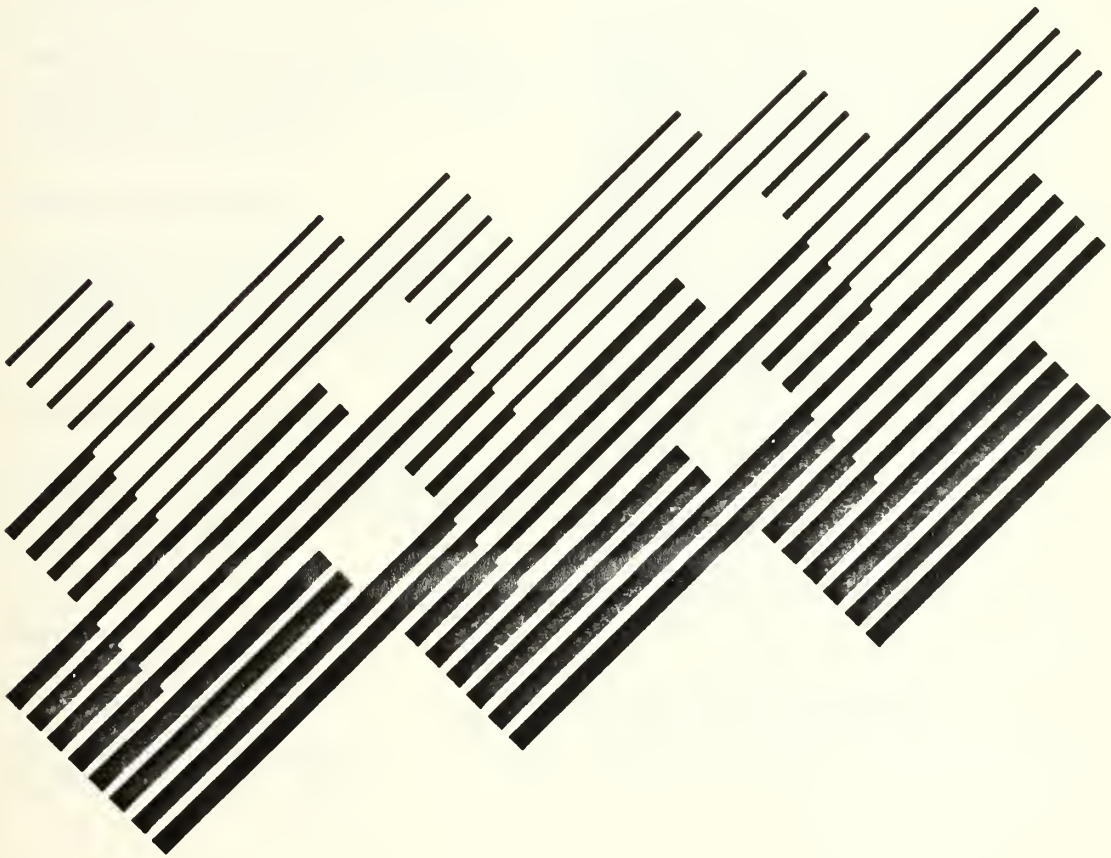
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**SBA**

# Feasibility Checklist for Starting a Small Business

By **Dr. Janelle C. Ashley**  
Dean of the School of Business  
Stephen F. Austin State University  
Nacogdoches, Texas  
And By **Dr. Danny R. Arnold**  
Associate Professor of Marketing  
Mississippi State University  
Mississippi State, Mississippi





## Summary

This AID is a checklist for the owner/manager of a small business enterprise or for one contemplating going into business for the first time. The questions concentrate on areas you must consider seriously to determine if your idea represents a real business opportunity and if you really know what you are getting into. You can use it to evaluate a completely new venture proposal or an apparent opportunity in your existing business.

Perhaps the most crucial problem you will face after expressing an interest in starting a new business or capitalizing on an apparent opportunity in your existing business will be determining the feasibility of your idea. Getting into the right business at the right time is simple advice, but advice that is extremely difficult to implement. The high failure rate of new businesses and products indicates that very few ideas result in successful business ventures, even when introduced by well established firms. Too many entrepreneurs strike out on a business venture so convinced of its merits that they fail to thoroughly evaluate its potential.

This checklist should be useful to you in evaluating a business idea. It is designed to help you screen out ideas that are likely to fail before you invest extensive time, money, and effort in them.

## Preliminary Analysis

A feasibility study involves gathering, analyzing and evaluating information with the purpose of answering the question: "Should I go into this business?" Answering this question involves first a preliminary assessment of both personal and project considerations.

## General Personal Considerations

The first seven questions ask you to do a little introspection. Are your personality characteristics such that you can both adapt to and enjoy small business ownership/management?

- |                                                | Yes   | No    |
|------------------------------------------------|-------|-------|
| 1. Do you like to make your own decisions?     | _____ | _____ |
| 2. Do you enjoy competition?                   | _____ | _____ |
| 3. Do you have will power and self-discipline? | _____ | _____ |
| 4. Do you plan ahead?                          | _____ | _____ |
| 5. Do you get things done on time?             | _____ | _____ |
| 6. Can you take advice from others?            | _____ | _____ |

- |                                              | Yes   | No    |
|----------------------------------------------|-------|-------|
| 7. Are you adaptable to changing conditions? | _____ | _____ |

The next series of questions stress the physical, emotional, and financial strains of a new business.

- |                                                                                                                                              |       |       |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| 8. Do you understand that owning your own business may entail working 12 to 16 hours a day, probably six days a week, and maybe on holidays? | _____ | _____ |
| 9. Do you have the physical stamina to handle a business?                                                                                    | _____ | _____ |
| 10. Do you have the emotional strength to withstand the strain?                                                                              | _____ | _____ |
| 11. Are you prepared to lower your standard of living for several months or years?                                                           | _____ | _____ |
| 12. Are you prepared to lose your savings?                                                                                                   | _____ | _____ |

## Specific Personal Considerations

- |                                                                                                 |       |       |
|-------------------------------------------------------------------------------------------------|-------|-------|
| 1. Do you know which skills and areas of expertise are critical to the success of your project? | _____ | _____ |
| 2. Do you have these skills?                                                                    | _____ | _____ |
| 3. Does your idea effectively utilize your own skills and abilities?                            | _____ | _____ |
| 4. Can you find personnel that have the expertise you lack?                                     | _____ | _____ |
| 5. Do you know why you are considering this project?                                            | _____ | _____ |
| 6. Will your project effectively meet your career aspirations?                                  | _____ | _____ |

The next three questions emphasize the point that very few people can claim expertise in all phases of a feasibility study. You should realize your personal limitations and seek appropriate assistance where necessary (i.e., marketing, legal, financial).

- |                                                                     |       |       |
|---------------------------------------------------------------------|-------|-------|
| 7. Do you have the ability to perform the feasibility study?        | _____ | _____ |
| 8. Do you have the time to perform the feasibility study?           | _____ | _____ |
| 9. Do you have the money to pay to have the feasibility study done? | _____ | _____ |

## General Project Description

- |                                                     |       |
|-----------------------------------------------------|-------|
| 1. Briefly describe the business you want to enter. | _____ |
|-----------------------------------------------------|-------|





2. List the products or services you want to sell. \_\_\_\_\_
3. Describe **who will use** your products/services. \_\_\_\_\_
4. **Why** would someone **buy** your product/service? \_\_\_\_\_
5. What kind of location do you need in terms of type of neighborhood, traffic count, nearby firms? \_\_\_\_\_
6. List your product/services suppliers. \_\_\_\_\_
7. List your major competitors—those who sell or provide like products/services \_\_\_\_\_
8. List the labor and staff you require to provide your products/services. \_\_\_\_\_

Yes No

4. Are there potential detrimental environmental effects? \_\_\_\_\_
5. Are there factors that prevent effective marketing? \_\_\_\_\_

### Requirements for Success

To determine whether your idea meets the basic requirements for a successful new project, you must be able to answer at least one of the following questions with a "yes."

- |                                                                                                                                                            | Yes   | No    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| 1. Does the product/service/business serve a presently unserved need?                                                                                      | _____ | _____ |
| 2. Does the product/service/business serve an existing market in which demand exceeds supply?                                                              | _____ | _____ |
| 3. Can the product/service/business successfully compete with existing competition because of an "advantageous situation," such as better price, location? | _____ | _____ |

### Major Flaws

A "Yes" response to questions such as the following would indicate that the idea has little chance for success.

- |                                                                                                                                                                                                                                                 |       |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|
| 1. Are there any causes (i.e., restrictions, monopolies, shortages) that make any of the required factors of production unavailable (i.e., unreasonable cost, scarce skills, energy, material, equipment, processes, technology, or personnel)? | _____ | _____ |
| 2. Are capital requirements for entry or continuing operations excessive?                                                                                                                                                                       | _____ | _____ |
| 3. Is adequate financing hard to obtain?                                                                                                                                                                                                        | _____ | _____ |

### Desired Income

The following questions should remind you that you must seek both a return on your investment in your own business as well as a reasonable salary for the time you spend in operating that business.

1. How much income do you desire? \_\_\_\_\_
2. Are you prepared to earn less income in the first 1-3 years? \_\_\_\_\_
3. What minimum income do you require? \_\_\_\_\_
4. What financial investment will be required for your business? \_\_\_\_\_
5. How much could you earn by investing this money? \_\_\_\_\_
6. How much could you earn by working for someone else? \_\_\_\_\_
7. Add the amounts in 5 and 6. If this income is greater than what you can realistically expect from your business, are you prepared to forego this additional income just to be your own boss with only the prospects of more substantial profit/income in future years? \_\_\_\_\_
8. What is the average return on investment for a business of your type? \_\_\_\_\_

### Preliminary Income Statement

Besides return on investment, you need to know the income and expenses for your business. You show profit or loss and derive operating ratios on the income statement. Dollars are the (actual, estimated, or industry average) amounts for income and expense categories. Operating ratios are expressed as percentages of net sales and show relationships of expenses and net sales.

For instance \$50,000 in net sales equals 100% of sales income (revenue). Net profit after taxes equals 3.14% of net sales. The hypothetical "X" industry average after tax net profit might be 5% in a given year for firms with \$50,000 in net sales. First you estimate or forecast income (revenue) and expense dollars and ratios for your business. Then compare your estimated or actual performance with your industry average. Analyze differences to see why you are doing better or worse than the competition or why your venture does or doesn't look like it will float.



These basic financial statistics are generally available for most businesses from trade and industry associations, government agencies, universities, and private companies and banks (Dun & Bradstreet, Robert Morris Associates, Accounting Corporation of America, National Cash Register Company, Bank of America, Federal Trade Commission, and Securities and Exchange Commission).

Forecast your own income statement. Do not be influenced by industry figures. Your estimates must be as accurate as possible or else you will have a false impression.

1. What is the normal markup in this line of business, i.e., the dollar difference between the cost of goods sold and sales, expressed as a percentage of sales? \_\_\_\_\_
2. What is the average cost of goods sold percentage of sales? \_\_\_\_\_
3. What is the average inventory turnover, i.e., the number of times the average inventory is sold each year? \_\_\_\_\_
4. What is the average gross profit as a percentage of sales? \_\_\_\_\_
5. What are the average expenses as a percentage of sales? \_\_\_\_\_
6. What is the average net profit as a percent of sales? \_\_\_\_\_
7. Take the preceding figures and work backwards using a standard income statement format and determine the level of sales necessary to support your desired income level. \_\_\_\_\_
8. From an objective, practical standpoint, is this level of sales, expenses and profit attainable? \_\_\_\_\_

| ANY SMALL BUSINESS, INC.<br>Condensed Hypothetical Income Statement<br>For year ending December 31, 19____ |           |                  |
|------------------------------------------------------------------------------------------------------------|-----------|------------------|
| Item                                                                                                       | Amount    | Ratio<br>Percent |
| Gross sales .....                                                                                          | \$773,888 |                  |
| Less returns, allowances,<br>and cash discounts .....                                                      | 14,872    |                  |
| Net sales .....                                                                                            | \$759,016 | 100.00           |
| Cost of goods sold .....                                                                                   | 589,392   | 77.65            |
| Gross profit on sales .....                                                                                | \$169,624 | 22.35            |
| Selling expenses .....                                                                                     | 41,916    | 5.52             |
| Administrative expenses .....                                                                              | 28,010    | 3.69             |
| General expenses .....                                                                                     | 50,030    | 6.59             |
| Financial expenses .....                                                                                   | 5,248     | 0.69             |
| Total expenses .....                                                                                       | 125,204   | 16.50            |
| Operating profit .....                                                                                     | 44,420    | 5.85             |
| Extraordinary expenses .....                                                                               | 1,200     | 0.16             |
| Net profit before taxes .....                                                                              | \$43,220  | 5.69             |
| Federal, state, and local taxes .....                                                                      | 19,542    | 2.57             |
| Net profit after taxes .....                                                                               | \$23,678  | 3.12             |

## Market Analysis

The primary objective of a market analysis is to arrive at a realistic projection of sales. After answering the following questions you will be in a better position to answer question eight immediately above.

### Population

1. Define the geographical areas from which you can realistically expect to draw customers. \_\_\_\_\_
2. What is the population of these areas? \_\_\_\_\_
3. What do you know about the population growth trend in these areas? \_\_\_\_\_
4. What is the average family size? \_\_\_\_\_
5. What is the age distribution? \_\_\_\_\_
6. What is the per capita income? \_\_\_\_\_
7. What are the consumers' attitudes toward business like yours? \_\_\_\_\_
8. What do you know about consumer shopping and spending patterns relative to your type of business? \_\_\_\_\_
9. Is the price of your product/service especially important to your target market? \_\_\_\_\_
10. Can you appeal to the entire market? \_\_\_\_\_
11. If you appeal to only a market segment, is it large enough to be profitable? \_\_\_\_\_

### Competition

1. Who are your major competitors? \_\_\_\_\_
2. What are the major strengths of each? \_\_\_\_\_
3. What are the major weaknesses of each? \_\_\_\_\_
4. Are you familiar with the following factors concerning your competitors:
  - Price structure? \_\_\_\_\_
  - Product lines (quality, breadth, width)? \_\_\_\_\_
  - Location? \_\_\_\_\_
  - Promotional activities? \_\_\_\_\_
  - Sources of supply? \_\_\_\_\_
  - Image from a consumer's viewpoint? \_\_\_\_\_
5. Do you know of any new competitors? \_\_\_\_\_
6. Do you know of any competitor's plans for expansion? \_\_\_\_\_
7. Have any firms of your type gone out of business lately? \_\_\_\_\_
8. If so, why? \_\_\_\_\_
9. Do you know the sales and market share of each competitor? \_\_\_\_\_
10. Do you know whether the sales and market share of each competitor are increasing, decreasing, or stable? \_\_\_\_\_
11. Do you know the profit levels of each competitor? \_\_\_\_\_



12. Are your competitors' profits increasing, decreasing, or stable? \_\_\_\_\_
13. Can you compete with your competition? \_\_\_\_\_

Yes No

**Sales**

1. Determine the total sales volume in your market area. \_\_\_\_\_
2. How accurate do you think your forecast of total sales is? \_\_\_\_\_
3. Did you base your forecast on concrete data? \_\_\_\_\_
4. Is the estimated sales figure "normal" for your market area? \_\_\_\_\_
5. Is the sales per square foot for your competitors above the normal average? \_\_\_\_\_
6. Are there conditions, or trends, that could change your forecast of total sales? \_\_\_\_\_
7. Do you expect to carry items in inventory from season to season, or do you plan to mark down products occasionally to eliminate inventories? If you do not carry over inventory, have you adequately considered the effect of **mark-down** in your pricing? (Your gross profits margin may be too low.) \_\_\_\_\_
8. How do you plan to advertise and promote your product/service/business? \_\_\_\_\_
9. Forecast the share of the total market that you can realistically expect—as a dollar amount and as a percentage of your market. \_\_\_\_\_
10. Are you sure that you can create enough competitive advantages to achieve the market share in your forecast of the previous question? \_\_\_\_\_
11. Is your forecast of dollar sales greater than the sales amount needed to guarantee your desired or minimum income? \_\_\_\_\_
12. Have you been optimistic or pessimistic in your forecast of sales? \_\_\_\_\_
13. Do you need to hire an expert to refine the sales forecast? \_\_\_\_\_
14. Are you willing to hire an expert to refine the sales forecast? \_\_\_\_\_

5. Do you know about the delivery schedules for each supplier? \_\_\_\_\_
6. Do you know the sales terms of each supplier? \_\_\_\_\_
7. Do you know the credit terms of each supplier? \_\_\_\_\_
8. Do you know the financial condition of each supplier? \_\_\_\_\_
9. Is there a risk of shortage for any critical materials or merchandise? \_\_\_\_\_
10. Are you aware of which supplies have an advantage relative to transportation costs? \_\_\_\_\_
11. Will the price available allow you to achieve an adequate markup? \_\_\_\_\_

**Expenses**

1. Do you know what your expenses will be for: rent, wages, insurance, utilities, advertising, interest, etc? \_\_\_\_\_
2. Do you need to know which expenses are Direct, Indirect, or Fixed? \_\_\_\_\_
3. Do you know how much your overhead will be? \_\_\_\_\_
4. Do you know how much your selling expenses will be? \_\_\_\_\_

**Miscellaneous**

1. Are you aware of the major risks associated with your product? Service? Business? \_\_\_\_\_
2. Can you minimize any of these major risks? \_\_\_\_\_
3. Are there major risks beyond your control? \_\_\_\_\_
4. Can these risks bankrupt you? (fatal flaws) \_\_\_\_\_

**Venture Feasibility**

1. Are there any major questions remaining about your proposed venture? \_\_\_\_\_
2. Do the above questions arise because of a lack of data? \_\_\_\_\_
3. Do the above questions arise because of a lack of management skills? \_\_\_\_\_
4. Do the above questions arise because of a "fatal flaw" in your idea? \_\_\_\_\_
5. Can you obtain the additional data needed? \_\_\_\_\_
6. Can you obtain the additional managerial skills needed? \_\_\_\_\_
7. Are you aware that there is less than a 50-50 chance that you will be in business two years from now? \_\_\_\_\_

**Supply**

Yes No

1. Can you make a list of every item of inventory and operating supplies needed? \_\_\_\_\_
2. Do you know the quantity, quality, technical specifications, and price ranges desired? \_\_\_\_\_
3. Do you know the name and location of each potential source of supply? \_\_\_\_\_
4. Do you know the price ranges available for each product from each supplier? \_\_\_\_\_



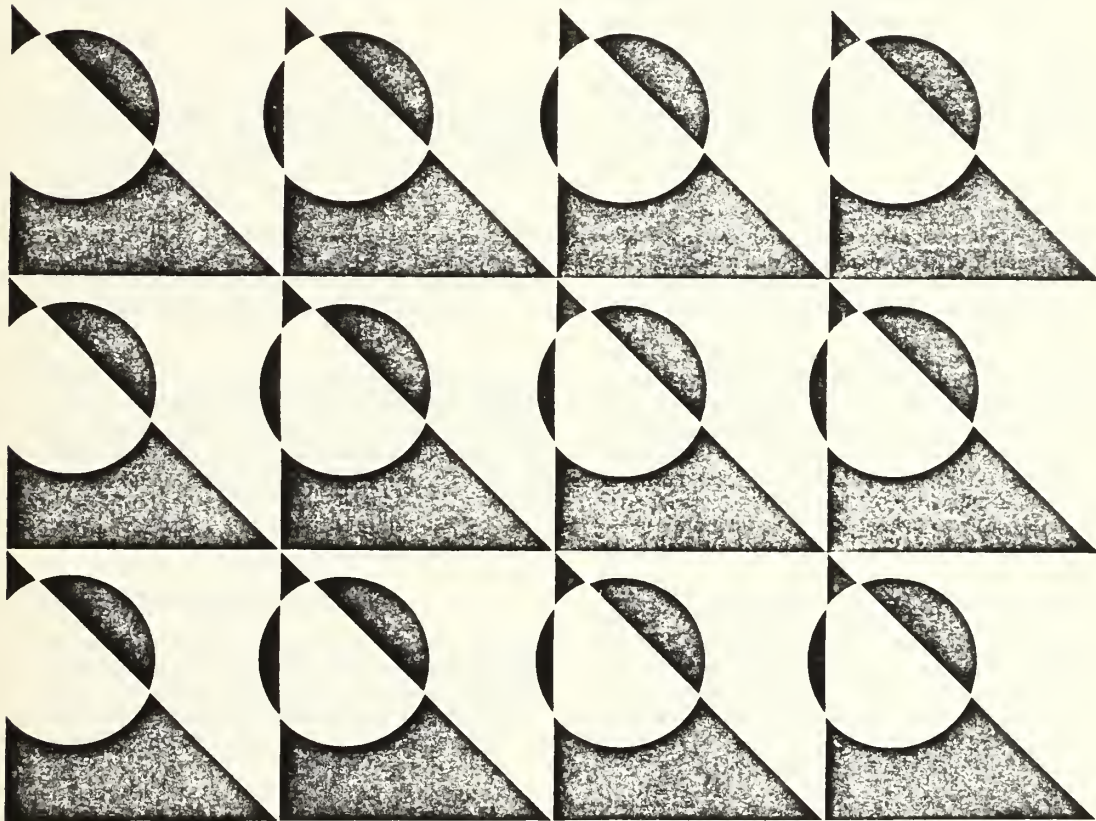
U.S. Small Business Administration  
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Management Aids  
Number 1.011

**SBA**

# Analyze Your Records to Reduce Costs

By Alfred B. Abraham, CPA  
Managing Director  
Business Diagnostics  
New York, NY







## Summary

**Increasing profits through cost reduction must be based on the concept of an organized, planned program. Unless adequate records are maintained through a proper accounting system, there can be no basis for ascertaining and analyzing costs.**

**Cost reduction IS NOT simply attempting to slash any and all expenses unmethodically. The owner-manager must understand the nature of expenses and how expenses inter-relate with sales, inventories, cost of goods sold, gross profits, and net profits.**

**Cost reduction does not mean only the reduction of specific expenses. You can achieve greater profits through more efficient use of the expense dollar. Some of the ways you do this are by increasing the average sale per customer, by effectively using display space and thereby increasing sales volume per square foot, by getting a larger return for your advertising and sales promotion dollar, and by improving your internal methods and procedures.**

Profit is in danger when good merchandising and cost control do not go hand in hand. A big sales volume does not necessarily mean a big profit, as one small retailer, Carl Jones\*, learned.

Jone's pride was stocking stylish and well assorted lines of merchandise. Each year, sales volume increased. This increase was attributed to good merchandising which Jones felt took care of the steady rise in expenses.

But Mr. Jones began to have doubts when he found it necessary to get bank loans more often than had been his practice. When he discussed the problem with his banker, Jones was advised to check expenses. As the banker said, "A large and increasing sales volume often creates the appearance of prosperity while behind-the-scene expenses are eating up the profit."

## Paying The Right Price

Your goal should be to pay the right price for prosperity. Determining that price for your operation goes beyond knowing what your expenses are. Reducing expenses to increase profit requires you to obtain the most efficient use of the expense dollar.

\*Names are fictitious in Aids.

Look, for example, at the payroll expense. Salesclerks are paid to sell goods, and their productivity is the key to reducing the payroll cost.

If you train a salesclerk to make multiple sales at higher unit prices, you increase productivity and your profits without adding dollars to your payroll expenses. Or if four salesclerks can be trained to sell the amount previously sold by seven, the payroll can be cut by three persons.

An understanding of the worth of each expense item comes from experience and an analysis of records. Adequate records tell what has happened. Their analysis provide facts which can help you set realistic cost and profit goals. When you attain these goals, you are paying the right price for your store's prosperity.

## Analyze Your Expenses

Sometimes you cannot cut an expense item. But you can get more from it and thus increase your profits. In analyzing your expenses, you should use percentages rather than actual dollar amounts.

For example, if you increase sales and keep the dollar amount of an expense the same, you have decreased that expense as a percentage of sales. When you decrease your cost percentage, you increase your percentage of profit.

On the other hand, if your sales volume remains the same, you can increase the percentage of profit by reducing a specific item of expense. Your goal, of course, is to do both: to decrease specific expenses and increase their productive worth at the same time.

Before you can determine whether cutting expenses will increase profits, you need information about your operation. This information can be obtained only if you have an adequate recordkeeping system. Such records will provide the figures to prepare a profit and loss statement (preferably monthly for most retail businesses), a budget, break-even calculations, and evaluations of your operating ratios compared with those of similar types of business.

**Break-even.** A useful method for making expense comparisons is break-even analysis. Break-even is the point at which gross profit equals expenses. In a business year, it is the time at which your sales volume has become sufficient to enable your over-all operation to start showing a profit. The two condensed profit and loss statements, in the accompanying example, illustrate the point. In statement "A", the sales volume is at the break-even point and no profit is made. In Statement



"B" for the same store, the sales volume is beyond the break-even point and a profit is shown. In the two statements, the percentage factors are the same except for fixed expenses, total expenses, and operating profit.

|                       | A                 |                  | B             |                  |
|-----------------------|-------------------|------------------|---------------|------------------|
|                       | Break-Even Amount | Percent of Sales | Profit Amount | Percent of Sales |
| Sales.....            | \$500,000         | 100              | \$600,000     | 100              |
| Cost of Sales.....    | 300,000           | 60               | 360,000       | 60               |
| Gross Profit.....     | 200,000           | 40               | 240,000       | 40               |
| Operating Expenses    |                   |                  |               |                  |
| Fixed.....            | 150,000           | 30               | 150,000       | 25               |
| Variable.....         | 50,000            | 10               | 60,000        | 10               |
| Total.....            | 200,000           | 40               | 210,000       | 35               |
| Operating Profit..... | \$ NONE           | 0                | \$ 30,000     | 5                |

As shown in the example, once your sales volume reaches the break-even point, your fixed expenses are covered. Beyond the break-even point, every dollar of sales should earn you an equivalent additional profit percentage.

It is important to remember that once sales pass the break-even point, the fixed expenses percentage goes down as the sales volume goes up. Also the operating profit percentage increases at the same rate as the percentage rate for fixed expenses decreases—provided, of course, that variable expenses are kept in line. In the illustration, fixed expenses in Statement "B" decreased by 5 percent and operating profit increased by 5 percent.

## Locating Reducible Expenses

Your profit and loss (or income) statement provides a summary of expense information and is the focal point in locating expenses that can be cut. Therefore, the information should be as current as possible. As a report of what has already been spent, a P and L statement alerts you to expense items that bear watching in the present business period. If you get a P and L statement only at the end of the year, you should consider having one prepared more often. At the end of each quarter might be often enough for some firms. Ideally, you can get the most recent information from a monthly P and L.

Regardless of the frequency, for the most information, two P and L statements should be prepared. One statement should report the sales, expenses, profit and/or loss of your operations cumulatively for the current business year to date. The other should report on the same items for the last complete month or quarter. Each of the statements should also carry the following

information: (1) this year's figures and each item as a percentage of sales, (2) last year's figures and the percentages, (3) the difference between last year and this year—over or under, (4) budgeted figures and the respective percentages, (5) the difference between this year and the budgeted figures—over and under, (6) average percentages for your line of business (industry operating ratio) when available, and (7) the difference between your annual percentages and the industry ratios—under or over.

This information allows you to locate expense variation in three ways: (1) by comparing this year to last year, (2) by comparing expenses to your own budgeted figures, and (3) by comparing your percentages to the operating ratios for your line of business.

The important basis for comparison is the percentage figure. It represents a common denominator for all three methods. When you have indicated the percentage variations, you should then study the dollar amounts to determine what kind of corrective action is needed.

Because your cost cutting will come largely from variable expenses, you should make sure that they are flagged on your P and L statements. Variable expenses are those which fluctuate with the increase or decrease of sales volume. Some of them are: advertising, delivery, wrapping supplies, sales salaries, commissions, and payroll taxes. Fixed expenses are those which stay the same regardless of sales volume. Among them are: your salary, salaries for permanent non-selling employees (for example, the bookkeeper), depreciation, rent, and utilities.

## Taking Action

When you have located a problem expense area, the next step obviously is to reduce that cost so as to increase your profit. A key to the effectiveness of your cost-cutting action is the worth of the various expenditures.

As long as you know the worth of your expenditures, you can profit by making small improvements in expenses. Keep an open eye and an open mind. It is better to do a spot analysis once a month than to wait several months and then do a detailed study.

Take action as soon as possible. You can refine your cost-cutting action as you go along.

Be persistent. Sometimes results may be slower than you might like. Keep in mind that only persistent analysis of your records and constant action can keep expenses from eating up profit.



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**SBA**

# Budgeting in a Small Service Firm

By Phyllis A. Barker  
Associate Professor of Accounting,  
Indiana State University  
Terre Haute, Indiana





## Summary

**Budgeting is a tool for dealing with the future. It helps you turn expectations into reality.**

**An increase in profit should be the first consideration when you think about the prospects for your small service business in the next year. Working up a budget helps you to determine whether or not your profit goal is within reach.**

**When the figures are all together, you have answers to questions such as: What sales will be needed to achieve the desired profit? What fixed expenses will be necessary to support these sales? What variable expenses will be incurred in producing the services?**

**Because small business is not a cut-and-dried affair, the first budget often will uncover problems and suggest choices. Working up additional budgets will help you decide what changes to make in order to have a workable plan for next year.**

**Many owner-managers run their businesses without a planned goal. In trying to survive from week to week and from month to month, such owner-managers overlook an important management tool—budgeting. Whether the plan is for next year, for the next 3 years, or for the next 5 years, budgeting can help just as a map helps you to keep on the right road.**

## Why Budget

A budget is a plan that enables you to set a goal and list the steps which are necessary to reach that goal.

Thus, a budget helps you think about what you want your business to do in the future. By planning, you are in a better position to act to prevent crises.

In its simplest form a budget is a detailed plan of future receipts and expenditures—a projected profit and loss statement. Thus once the period for which you have budgeted is completed, you can compare actual results with anticipated goals. If some of your expenses, for example, are higher than you expected, you can start looking for ways to cut them. Conversely, if you have fallen short of your goal, you may want to look for ways to increase your income.

Budget makers can start either with a forecast of sales and work down or with a forecast of profits and work up. Most small service businesses use the latter method. In other words, you decide what profit you want to make and then list the expenses that you will incur in order to make that predetermined profit.

2

## A Plan For Increased Profit

Before you can use a budget as a plan for increased profit, you have to be sure that your present profit is what it should be. In a service business, the year-end profit should be large enough to make a return on your investment and a return on your own work—pay you a salary.

**Value Of Owner's Service.** Skilled crafts people who own service businesses are kidding themselves if their firms' profits are less than they can earn working for someone else. Your net profit after taxes should be at least as much as you can earn if you worked at your trade for a weekly pay check.

**Return On Investment.** The year-end profit is too low if it does not also include a return on the owner-manager's investment. That investment includes the money you put into the firm when you started it and the profit of prior years which you left in the firm—retained earnings. You should check to be sure that the rate of return on your investment is what it should be. Your trade association should be able to provide guidelines about the rate of return on investment in your line of business. Your accountant and banker are also sources of help.

**Your Targeted Income.** After you know what you made last year, you can set a profit goal for next year. Be sure that your goal includes a return on your services and a return on your investment. Your goal should also include an amount for State and Federal taxes. For example, if you want to make \$10,000 after taxes, your goal before taxes should be about \$13,333. You have to add this \$3,333 to take care of State and Federal taxes. Keep in mind that the larger your goal, the larger the amount which will have to be added to account for taxes. Your accountant can help you determine that amount.

## Can You Reach The Goal

Once you have decided on your profit target, the next step in preparing a budget is to determine whether you can achieve it. To do this, you must project your fixed costs and your variable costs. From these three figures—profit, fixed expenses, and variable expenses—you can determine your "hoped for" total income.

In gathering figures, keep in mind that without accurate information planning becomes guessing. The owner-manager who has never budgeted should talk with an accountant about a recordkeeping system. Changes may be needed to provide the necessary budget information. It may be that your present system does not break costs down into fixed and variable expenses, or it may be that





you need to have a profit and loss (or income) statement at more frequent intervals to determine the seasonal fluctuations of your revenues and expenses.

**Fixed Expenses.** Regardless of sales, fixed expenses stay the same. Several examples of fixed expenses are insurance, rent, taxes on property, wages paid to salaried employees, depreciation of equipment, interest on borrowed money, building maintenance costs, office salaries, and office expenses.

**Variable Expenses** This type of expense varies with sales. In some service businesses, the cost of labor is the biggest factor. Sales commissions, payroll taxes, insurance, advertising, and delivery expenses are other examples of variable expenses.

**Determine Your Expected Service Income** Your expected service income contribution is the difference between sales and the variable expenses that are necessary to produce these sales. When this difference equals fixed expenses and the desired profit, you have a workable budget.

## Lucy's Beauty Shop

Lucy's Beauty Shop\* illustrates the principals of budgeting in a small service business. The owner-manager is Mrs. Lucy Doe. The shop's income is from two sources: (1) from beauty services which are performed by three operators and (2) from cosmetics and perfumes which are sold by the receptionist. The receptionist also answers the telephone, keeps the shop's daily records, and prepares the checks for Mrs. Doe to sign.

**Targeted Income** In making a budget, Mrs. Doe decided that she wanted to increase her net profit after taxes. She set the goals at \$10,000 for net profit after taxes. This figure meant that the shop's profit before taxes had to be about \$13,333 because she figured that her taxes would amount to about \$3,333.

This goal was an ambitious one because her previous year's net profit before taxes was \$8,390. For details on that year see page four. "Lucy's Beauty Shop—Profit and Loss Statement."

**Determining Fixed Expenses.** As shown in the table, "Lucy's Beauty Shop—Profit and Loss Statement," the shop's fixed expense items are: depreciation of equipment, receptionist's salary, insurance, rent, interest on equipment obligations, and utilities (heat and air conditioning). In addition, about one half of the laundry and shop maintenance expense is fixed. In budgeting her fixed expenses for next year, Mrs. Doe took into account:

(1) the raise she intended to give the receptionist, (2) a change in amount of interest, and (3) a change in her insurance expense.

She estimated that her fixed expenses for next year would be \$11,000.

**Determining Variable Expenses.** In Mrs. Doe's beauty shop, the variable expenses—those that vary with sales—are cost of cosmetics sold, shop supplies, payroll taxes and costs, utilities (water and electricity), about one-half of laundry and shop maintenance, and operator's salaries. These salaries are variable because each operator receives one-half of the total price charged the customer.

When determining variable expenses, Mrs. Doe uses her trade journals for information on budgeted percentages. For budgeting purposes, all costs are expressed as a percentage of the sales dollar. In her case, the percentages are: beauty shop supplies 10; laundry, including uniforms 3; water and variable utilities 1; and payroll costs 5.

\*Names in Aids are Fictitious



**Lucy's Beauty Shop  
Profit And Loss Statement  
For the Year Ended December 31, 19\_\_\_**

|                                 |                  |               |              |                       |
|---------------------------------|------------------|---------------|--------------|-----------------------|
| <b>Revenue:</b>                 |                  |               |              |                       |
| Merchandise                     |                  |               |              | \$12,000              |
| Beauty Shop Service             |                  |               |              | <u>42,000</u>         |
| <b>Total Revenue</b>            |                  |               |              | <b>\$54,000</b>       |
| <b>Cost of Merchandise Sold</b> |                  |               |              | <u>6,000</u>          |
| <b>Gross Margin</b>             |                  |               |              | <b>\$48,000</b>       |
| <b>Expenses</b>                 | <u>Variables</u> | <u>Fixed</u>  | <u>Total</u> |                       |
| Depreciation                    |                  | 300           | 300          |                       |
| Salaries and wages              | 21,000           | 2,700         | 23,700       |                       |
| Supplies                        | 4,200            |               | 4,200        |                       |
| Insurance                       |                  | 110           | 110          |                       |
| Rent                            |                  | 4,800         | 4,800        |                       |
| Payroll taxes and costs         | 2,370            |               | 2,370        |                       |
| Interest                        |                  | 250           | 250          |                       |
| Utilities                       | 420              | 1,000         | 1,420        |                       |
| Laundry and Shop maintenance    | <u>1,260</u>     | <u>1,200</u>  | <u>2,460</u> |                       |
|                                 | <u>29,250</u>    | <u>10,360</u> |              | <u>\$39,610</u>       |
| <b>Net Income Before Taxes</b>  |                  |               |              | <u><u>\$8,390</u></u> |

She estimates her total payroll costs at 5 percent of gross revenue from service or 10 percent of salaries. Payroll taxes both—State and Federal—account for 7.9 percent of the 10 percent, and payment's for workers' compensation and other employee insurance account for 2.1 percent.

**Determining Expected Service Income.** The next step in preparing a budget for Lucy's Beauty Shop is to determine the expected service income contribution. The basis for estimating this income for next year is the average revenue for each operator's appointment with one customer. This figure is \$4. See the following table, "Service Income Contribution."

One half of the \$4 belongs to the operator. Other variable expenses take 76 cents. Thus, from each \$4 unit of services that is sold, \$1.24 is left for service income contribution.

The service revenue for 12 months is shown in the table, "Determination of Total Service Contribution." Mrs. Doe arrived at these estimates as follows:

1. From the appointment book, she learned that each operator averages 15 appointments a day.

2. The shop's income from each operator is \$30 a day (15 times \$2).
3. Each operator works 5 days a week.
4. Each operator contributes \$630 a month to the shop's income (21 days times \$30).

**Service Income Contribution  
Expressed as a Percent of Sales Dollar**

|                                          |               |             |
|------------------------------------------|---------------|-------------|
| <b>Average Service Revenue</b>           | <b>\$4.00</b> | <b>100%</b> |
| <b>Variable Expenses</b>                 |               |             |
| Operator salaries                        | \$2.00        | 50%         |
| Beauty supplies                          | .40           | 10%         |
| Laundry and uniforms                     | .12           | 3%          |
| Water                                    | .04           | 1%          |
| Payroll costs                            | <u>.20</u>    | <u>5%</u>   |
| <b>Total Variable Expenses</b>           | <u>2.76</u>   | <u>69%</u>  |
| <b>Income Contribution From Services</b> | <b>\$1.24</b> | <b>31%</b>  |



On this \$630, the shop clears \$390.60 because 76 cents of each \$2 that the shop receives from an operator's work goes for variable expenses (see the table, "Service Income Contribution").

The shop's cosmetic sales contribute a net revenue of 50 cents on the sales dollar. Mrs. Doe estimated, based on past experience, that she could get a 50 percent increase in the sales of cosmetics without additional advertising.

**Comparing Revenue and Cost.** After Mrs. Doe determines her variable expenses, fixed expenses, and the service income contribution, she is ready to test her budget. She does this by adding her total fixed expenses of \$11,000 and the desired gross profit of \$13,333. This total comes to \$24,333.

But her estimated service revenue (see the table, "Determination of Total Service Contribution,") is only \$23,061. It will not cover her fixed expenses and desired profit. Resources will be about \$1,300 short of the desired goal.

#### Determination Of Total Service Contribution

|                                                                                |                 |
|--------------------------------------------------------------------------------|-----------------|
| Revenue Per Operator For The Year<br>( $\$1,260$ per month $\times$ 12 months) | <u>\$15,120</u> |
| Service Income Contribution Per Operator<br>( $\$390.60$ $\times$ 12 months)   | <u>4,687*</u>   |
| Total Service Contribution From Beauty Shop<br>(3 operators $\times$ \$4,687)  | 14,061          |
| From Cosmetic Sales<br>( $\$18,000$ $\times$ 50%)                              | <u>9,000</u>    |
| Total Service Contribution Based<br>On Present Outlook                         | <u>\$23,061</u> |

\*Figures are rounded to the nearest dollar.

## Where Can She Go?

Because resources are not enough to cover fixed expenses and the desired profit, Mrs. Doe has to adjust her budget. She can go in at least three directions. One possibility is to add another operator. Another is to try to increase cosmetic sales. A third solution is to reduce her expected profit. In order to decide what to do, Mrs. Doe needs answers to several questions about each possibility. She may have to work up several tentative budgets to determine what to do.

**Add Another Operator.** This possibility poses the following questions: Is the relationship between fixed expenses and revenue in line with industry trends? Is there space for an additional booth? What additional fixed expenses will be incurred? Can another operator be

kept busy? If so, the additional revenue can help to offset Mrs. Doe's rent which is slightly higher than the average for her line of business. That average is 10 percent of gross beauty service income. The shop has sufficient space for another booth. However, if a booth is added, fixed expenses will increase because equipment for the new booth will mean additional financing costs.

**Increase Cosmetic Sales.** This possibility seems to be a logical way to increase income because each dollar of sales will increase the revenue by 50 cents. The first question is how much of an increase in cosmetic sales will be needed? Mrs. Doe calculated that these sales must be increased by about 95 percent rather than by 50 percent as she originally planned. Other questions to answer here are: By what method will sales be increased? By what additional advertising? By offering the receptionist and operators a commission on cosmetic sales? By reducing prices? What effect will these methods have on revenue? How much additional inventory will be needed? How will it be financed? Is storage and display space sufficient to accommodate increased sales?

**Reduce Expectations.** Sometimes the only practical solution is to reduce the expected profit. Mrs. Doe decided that \$10,000 net profit after taxes was not in the picture next year. Based on her knowledge of the beauty shop business, she felt that her shop was not quite ready to add another operator. For one thing, she foresaw the possibility of personnel trouble if a new operator was not kept busy.

She also felt that trying to push cosmetic sales up by more than 50 percent could cause customer dissatisfaction. She reminded herself that customers regarded the shop's beauty service highly and decided that any major growth in sales must come from that end of the business. Another operator and \$10,000 or more net profit after taxes might be feasible the year after next. She would keep the possibility in mind as she moved into next year.

## Periodic Feedback And Control

A budget provides a tool for control. You start building this facility when your budget for 12 months is completed. Break it down into quarters. Such a breakdown allows you to check for any discrepancies that may not show up readily in a 12 month budget. When many items are added together, it is easy for an error to creep into the totals.

During the year, this quarterly division provides a handle for getting a hold on expenses and other activities.



For example, by looking at next quarter's budget you can anticipate peak periods and schedule stock and labor to handle peak sales volume. You can plan vacations, special promotions, and inventory taking for the slow periods.

A monthly or quarterly profit and loss statement allows you to keep the items in your budget in line with operations. Ask your accountant to show the actual and the planned revenues and expenses on the income statement so you can compare them. Thus, you can pinpoint and work on the problems that have occurred during the month or the quarter. Your objective is to guide your activities toward the most profitable type of operations.

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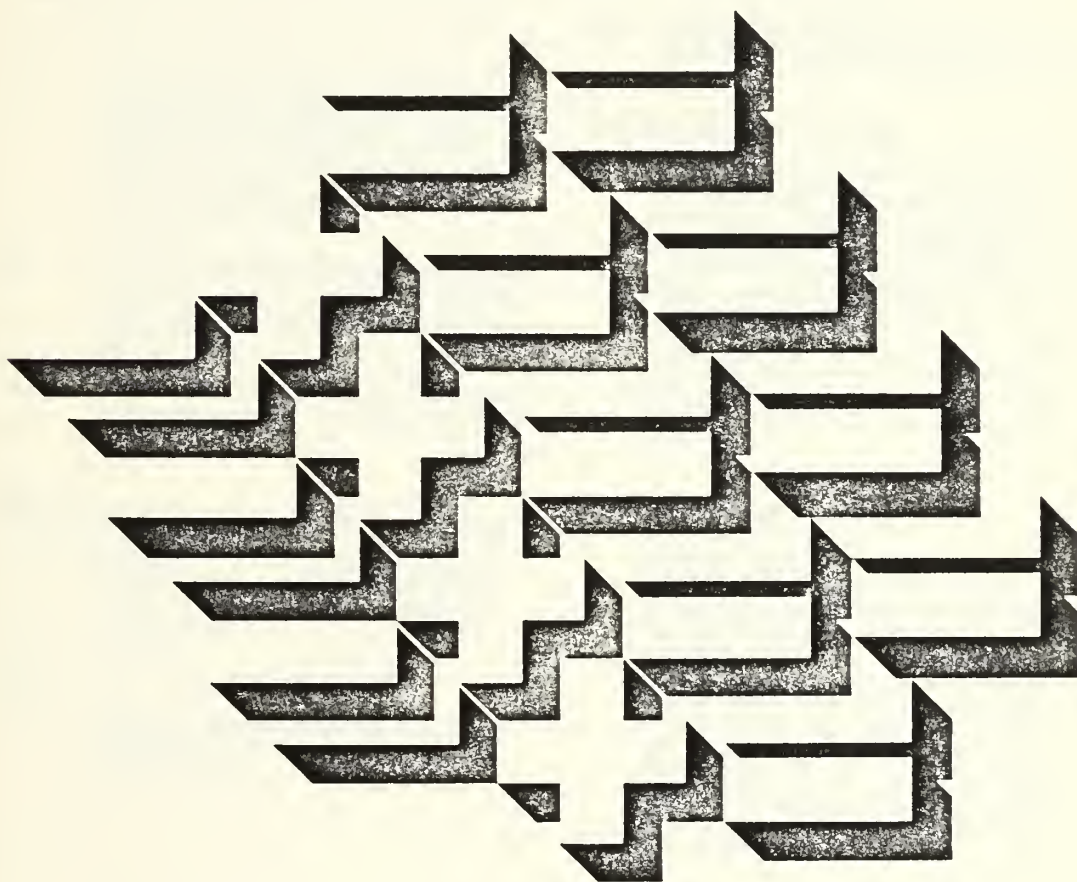
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**SBA**

# Breakeven Analysis: A Decision-Making Tool

**By Fred C. Hammel**  
Retired Certified Public Accountant  
and Member of SCORE  
Fort Lauderdale, Florida

**Peter G. Goulet**  
Assistant Professor of Management  
University of Northern Iowa  
Cedar Falls, Iowa





## Summary

Breakeven analysis is not a panacea. It's only one of the many tools available to the business decision maker. But it's a good tool with which to begin to approach decision problems.

Through first a simplified and then a detailed illustration, this Aid illustrates ways in which breakeven analysis can be applied to sales, profit, cost, and selling price problems and how it can be used to help make sound decisions for employing idle plant capacity, planning advertising, granting credit, and expanding production.

## Part One

This illustration, as a conversation between a business counselor (C) and the owner-manager of a small store (O-M), discusses a simplified method of calculating the breakeven point for a small retail operation. While this method is not appropriate for manufacturers or large retailers, it provides a financial planning takeoff point for small stores.

O-M: I'm ready to expand. I've just had a great fourth quarter. I've got a chance to move to a larger store in a good location. I really think I'm on my way. Still, though, I don't want to take any unnecessary chances and lose what I've built up these first three years. What do you think I should do?

C: Let me answer your question with a question: What's your breakeven point now and what will it be if you assume the added expansion cost?

O-M: I'm not exactly sure, but after that last quarter I've got money in the bank and I'm paying all my bills on time.

## What Bank Balances May Not Reveal

C: I'm glad to hear you're in good shape, but you can't make an intelligent expansion decision based on your bank balance at a given moment.

O-M: You ought to know, but why not?

C: Take your balance now, for example. It's a lot better than it was at the end of the first quarter, isn't it?

O-M: Sure, but the first quarter's usually slow. It's a fact of retail life.

C: And the fourth quarter is usually good, right?

O-M: Yes, that's a fact, too. But mine was outstanding—it was the best I've ever had.

C: I'm sure it was, but it can distort the picture. If you're relying on your bank balance for a feel for your breakeven point, you may just be guessing. Many things influence your bank balance that may not necessarily have a direct bearing on the breakeven point for you store. Seasonal fluctuation is just one of them.

O-M: There are more?

C: Sure, capital expenditures, extraordinary repairs, unusual outlays . . .

O-M: Okay, I get the point. My bank balance is meaningless. What about this breakeven thing?

## What Breakeven Means

C: Breakeven is simply the point where costs equal what you're taking in—no profit, no loss—over a relevant sales range. To calculate this point you must work with only two factors, fixed expenses (like insurance or rent) and variable costs (like cost of goods or sales commissions).

O-M: I sure wish my costs were fixed. Everything goes up for me. My insurance, for example, looks like it's going up 25 percent over last year.

## Fixed and Variable Costs

C: Well, actually "fixed costs" is something of a misnomer. Sure, rents, property taxes, insurance, even the salary you pay yourself may fluctuate—but on a yearly basis and not in relation to sales. For the purpose of break-even analysis every cost that doesn't vary in relation to sales is called "fixed." Your rent, for instance, stays the same for the year whether you sell \$250,000 or \$2.50 worth of goods, though we know some rents are tied to volume and vary. The same is usually true of utilities, depreciation, and similar expense items.



O-M: I see the point. Variable costs, then, are basically my cost of sales? I have to buy more if I sell more. If I paid commissions, I'd be paying more for more sales, and that sort of thing.

C: That's right. There can be other variable costs, but we're simplifying. In addition, you'll probably find costs that seem to be part variable, part fixed.

O-M: You mean they're "semi-variable" or "semi-fixed?"

C: Yes, they're costs that remain fixed up to a certain sales volume and then jump as that volume is exceeded. For example, office costs, or delivery expenses may fit in this category.

O-M: How do I treat them?

C: Use your good business judgment and split them between fixed and variable costs in what you consider a reasonable proportion. The important thing to hold in mind for simple breakeven analysis is to keep it simple. Oversimplicity is, of course, a drawback of this method. But simple break-even analysis really helps you to see your way into a planning problem and to establish its perimeters.

O-M: I like the idea of simplicity, but I don't think break-even sounds simple so far.

C: I think you'll see how easy it is if we work through an example. Here, take a look at this hypothetical income or profit and loss statement for the B-E Retail Store.

**B-E Retail Store  
Income Statement**  
For the year ending December 31, 19\_\_\_\_

| Item          | Amount        | Percent |
|---------------|---------------|---------|
| Sales         | \$60,000      | 100     |
| Cost of Sales | <u>42,000</u> | 70      |
| Gross Profit  | <u>18,000</u> | 30      |

| Expenses:       |               |     |
|-----------------|---------------|-----|
| Rent            | \$ 1,800      | 3   |
| Wages           | 12,600        | 21  |
| Utilities       | 2,400         | 4   |
| Insurance       | 1,200         | 2   |
| Taxes           | 600           | 1   |
| All Other       | <u>600</u>    | 1   |
| Total Expenses  | <u>19,200</u> | 32  |
| Loss for Period | (\$ 1,200)    | (2) |

O-M: B-E doesn't seem to have broken even.

C: Correct. Let's find out what kind of sales volume B-E needed to break even in that year. For simplicity (there's that word again) let's consider cost of sales (which is 70 percent of sales) as the total variable costs and the expense items of \$19,200 as the fixed costs. We calculate the break-even point by using an algebraic formula.

O-M: A simple one, I hope.

C: Of course. It's just  $S = F + V$ , where:  
S = Sales at the break-even point,  
F = Fixed expenses, and  
V = Variable costs and expenses as a percent of sales.

O-M: All right, we know B-E's variable and fixed costs. How do we get sales?

C: Let's plug in the figures:  
 $S = \$19,200 + .70S$   
 $10S = \$192,000 + 7S$

O-M: Excuse me, 10S?

C: I multiplied the whole equation by 10 to get rid of the decimal fraction, because I think it's easier to work with whole numbers. Anyway, we get:  
 $10S - 7S = \$192,000$   
 $3S = \$192,000$   
 $S = \$64,000$

O-M: B-E needed \$64,000 total sales to break even? Anything less, they'd have a loss; anything more they'd make a profit?



C: You've got it. Let's check it, though, just to confirm it:

|                    |                                 |
|--------------------|---------------------------------|
| Sales              | \$84,000                        |
| Less Cost of Sales | <u>-\$44,800 (70% of sales)</u> |
| Gross Profit       | \$19,200                        |
| Less Expenses      | <u>-\$19,200</u>                |
| Profit or Loss     | \$0                             |

O-M: Okay, so B-E has broken even. But what about my problem?

## Break-even Analysis for Planning

C: Break-even analysis is just what you need. It's primarily a planning tool. I've looked at your Income Statement and divided it into fixed and variable costs. As I see it, your cost of sales, which we'll consider as your total variable costs, comes to about 60 percent of sales. Your fixed expenses ran about \$60,000. So for last year:

$$S = \$60,000 + .60S$$

$$10S = \$600,000 + 6S$$

$$4S = \$600,000$$

$$S = \$150,000$$

You had to sell only \$150,000 worth of merchandise to break even.

O-M: As you can see, I sold \$200,000 worth, but I didn't make a \$50,000 profit.

C: Right, you made a \$20,000 profit just as the bottom line indicates. Remember, you still had those variable costs on sales even after all of your fixed expenses were covered at the \$150,000 level.

O-M: Oh, I see, it's like this:

$$S = F + V + \text{Profit}$$

$$S = \$60,000 + .60S + \$20,000$$

$$10S = \$600,000 + 6S + \$200,000$$

$$4S = \$800,000$$

$$S = \$200,000$$

C: Now you've got it. Let's consider your expansion question. How much will your rent increase?

## Using Breakeven Analysis to Examine Expansion Feasibility

O-M: It would be about \$5,000 more. I figure the utilities for the larger space will be \$2,000 more than I paid last years. Taxes, the "fixed" ones, I expect to run about \$1,000 more and my insurance will increase about \$500. I also think I may need to hire another sales person.

C: Let's say you do. What do you plan to pay?

O-M: I'd pay an experienced sales clerk about \$9,000. I'm toying with the idea of instituting a 2 percent commission on sales as an incentive, too.

C: All right. We know it's not as simple as we'll lay it out, but I think the analysis will give you an idea of whether or not to explore the expansion idea more carefully and in greater detail.

O-M: Fine.

C: Your fixed expenses will rise by \$17,500, if you include hiring another employee. That brings them to \$77,500, assuming no other increases from last year's \$60,000. For simplicity's sake let's assume your cost of sales (your variable costs) will increase only by the 2 percent commission. That means 62 percent of sales for variable costs. So:

$$S = \$77,500 + .62S$$

$$100S = \$7,774,000 + 62S \text{ (multiplied by 100 to eliminate fraction)}$$

$$38S = \$7,775,000$$

$$S = \$205,000 \text{ (approximately)}$$

O-M: Only \$5,000 more than I did last year? I can do that easily.

C: And be \$20,000 in profits worse off than last year. Let's put last year's \$20,000 profit in—in an expansion you still might want to do at least as well:

$$S = \$77,500 + .62S + \$20,000$$

$$100S = \$7,750,000 + 62S + \$2,000,000$$

$$38S = \$9,750,000$$

$$S = \$257,000 \text{ (approximately)}$$

O-M: Hm, that's approximately a 25 percent sales increase just to make the same profit as last year.





## Business Judgment Still Necessary

**C:** Do you think you can boost sales by that much? Perhaps you see long range benefits from expansion that justify sacrificing some profit for the short run.

**O-M:** I'm not sure. I'll have to give it more thought, look at the trends in my business and in this area. My pricing policy may need adjustment. Maybe I can cut some costs. But now at least I've got a starting point, a dollar figure I can work with and from. Most importantly of all, I have a technique to help me attack my problem and help point me toward a rational decision.

**C:** That's what breakeven analysis is all about.

## Part Two

Breakeven analysis can be more than a simple tool. It can be an approach for dealing intelligently with uncertainty. There are always difficulties in estimating uncertain variables such as demand, but by specifying the levels of other variables like costs or profit that affect the income of a firm, a required—or minimum—level can be found for the unknown quantity. Any problem requiring income estimation can be set up so that the most difficult variable to estimate is isolated for solution.

Imagine a firm, the Acme Company. Acme has a vacant plant equipped sufficiently to produce a number of new products. Fixed costs for this facility are \$250,000. Acme is looking at a potential new product for production in this plant. The product, an electric fork, will sell for \$10 apiece and has variable cost for materials, labor, overhead, and other items of \$7.50 per unit.

At present management feels certain that the market for this product is 2 million units per year. The physical capacity of the plant is 15,000 units per month or 180,000 per year.

## Simple Breakeven Analysis

Should Acme make electric forks in its vacant plant? To begin to answer we need to find the contribution margin (CM) for the product. Contribution margin is simply what's left of revenue to cover fixed costs and profits after direct out-of-pocket (i.e. variable) costs have been subtracted; that is:

$$\text{CM} = \text{Revenue} - \text{Variable Costs (VC)}$$

When you subtract fixed costs (FC) from the contribution margin, you get earnings (before interest and taxes). You can then calculate the breakeven level by dividing fixed costs by CM. If CM is expressed on a per unit basis, the breakeven volume will be expressed in units. If it's expressed as a percent of revenue, the breakeven volume will be in dollars.

Let's look at Acme's electric fork project to see how this works.

### Contribution on a Per Unit Basis

$$\begin{aligned}\text{CM} &= \text{Revenue (Price)} - \text{Variable Cost (VC)} \\ &= \$10 - \$7.50 \\ &= \$2.50\end{aligned}$$

$$\begin{aligned}\text{Breakeven volume} &= \frac{\text{Fixed Costs (FC)}}{\text{CM}} \\ &= \frac{\$250,000}{\$2.50} \\ &= 100,000 \text{ units}\end{aligned}$$

### Contribution as a Percent of Revenue

$$\begin{aligned}\text{CM \%} &= \frac{\text{Price} - \text{VC}}{\text{Price}} \\ &= \frac{\$10 - \$7.50}{\$10} \\ &= \frac{\$2.50}{\$10} \\ &= 25\%\end{aligned}$$

$$\begin{aligned}\text{BE} &= \frac{\text{FC}}{\text{CM \%}} \\ &= \frac{\$250,000}{25\%} \\ &= \frac{\$250,000}{.25} \\ &= \$1,000,000\end{aligned}$$

Note that you can get the breakeven dollar total by multiplying the breakeven volume in units by the selling price or the number of units by dividing total revenue dollars at breakeven by price.



What's the answer to Acme's question? Well, the simple answer is that it should go ahead with the project. To breakeven they need to capture only 100,000 units worth or 5% of the estimated market of 2 million units per year. Second, they'll be operating well under the plant's physical capacity of 180,000 units per year at breakeven. Acme ought to be able to make a good profit using the vacant facility, if they can capture more than 5% of the market. With production and sales at capacity it looks like they'd make a profit of \$200,000 before taxes (80,000 units x \$2.50 = \$200,000), since all fixed costs will be covered at the 100,000 unit level.

Unfortunately, this is the simple answer. There are some difficulties with this easy as pie approach to Acme's product question.

## Some Shortcomings of Breakeven Analysis

The major problem is that no project really exists in isolation. There are alternative uses for the firm's funds in every case. For example, in Acme's case the vacant plant could be leased to another company for some return. It could also be used for another product. We must, therefore, always consider not only the value of an individual project, but how it compares to other uses of the funds and facilities.

Nor does breakeven analysis permit proper examination of cash flows. It's generally accepted in basic financial theory that the appropriate way to make investment or capital decisions is to consider the value of a proposed project's anticipated cash flows. If the discounted value of the cash flows exceeds the required investment outlay in cash, then the project is acceptable.

There are other objections. Breakeven analysis makes many restrictive assumptions about cost-revenue relationships; in normal use it's basically a negative technique, defining constraints rather than looking at benefits; and it's essentially a static tool for analyzing a single period. What all this theory boils down to is that breakeven analysis is too simplistic a technique to be used to make *final* investment decisions.

You might well ask then: If that's true, what is breakeven analysis good for?

## Some Basic Uses for Breakeven

1. It's a cheap screening device. Discounted cash flow techniques require large amounts of expensive-to-get

data. Breakeven can tell you whether or not it's worthwhile to do more intensive (and costly) analysis.

2. It provides a handle for designing product specifications. Each design has implications for cost. Costs obviously affect price and marketing feasibility. Breakeven permits comparison of possible designs before the specifications are frozen.

For example, in many small businesses a new product with an uncertain volume is often more feasible if it's made with temporary hand tools and jigs rather than with expensive production tooling. The first method typically has higher variable costs, but lower fixed costs. This often results in a lower breakeven for the project — and lower risks and potential profits. The more automated approach, on the other hand, raises the breakeven, but also raises the risks and profit potential for the company. Breakeven lets you examine these trade-offs.

3. It serves as a substitute for estimating an unknown factor in making project decisions. In deciding whether to go ahead on a project or to skip it, there are always variables to be considered: demand, costs, price, and miscellaneous factors. When most expenses can be determined, only two missing variables remain, profit (or cash flow) and demand. Demand is usually tougher to estimate. By deciding that profit must at least be zero (the breakdown point), you can then fairly simply find the demand you must have to make the project a reasonable undertaking.

You still have to compare the demand figure at breakeven with the market share you think you can capture to judge the worthiness of the project, and you'll have to use your business sense here. But breakeven gives you a way to attack uncertainty, to get onto the target if not into the bull's-eye. Let's look at some examples.

## Breakeven Applied to Uncertainty

**Profit Margin.** The typical breakeven approach develops the volume needed for producing no profit. What if you think you're in business to make a profit?

Using the Acme example, let's say we'd like a 10% profit margin on the project. The original contribution margin for the electric fork was 25%, but that was at zero profit. In effect, our 10% profit acts like a variable cost, so we must adjust CM% accordingly:  $25\% - 10\% = 15\%$ . Now we can calculate breakeven (BE) using the percent of revenue approach:



$$\begin{aligned}
 BE &= \frac{FC}{CM\%} \\
 &= \frac{\$250,000}{15\%} \\
 &= \mathbf{\$1,666,667} \text{ (or 166,667 units at \$10 each)}
 \end{aligned}$$

This is still below plant capacity. Acme can now look at the market and make a judgment on the probability of selling that many electric forks.

**Dollar Profit.** What if Acme wants a fixed dollar profit of \$150,000? Here we treat the profit as a fixed cost, so we've got to add it to the fixed cost established for the plant:  $\$150,000 + \$250,000 = \$400,000$ . We can now calculate the breakeven volume using the per unit approach:

$$\begin{aligned}
 BE &= \frac{FC}{CM} \\
 &= \frac{\$400,000}{(\$10 - \$7.50)} \\
 &= \frac{\$400,000}{\$2.50} \\
 &= \mathbf{160,000 \text{ units (or \$1,600,000)}}
 \end{aligned}$$

Again this is below capacity. And again somebody has to make a judgment on the likelihood of selling this many units.

**Maximum Out-Of-Pocket Cost.** Suppose Acme's management can forecast sales with a degree of assurance. They judge that they can sell 150,000 of the new electric forks each year. What out-of-pocket expenses can they incur and still breakeven? First, we've got to change the breakeven formula around a little:

$$\begin{aligned}
 BE_{VOL} &= \frac{FC}{CM} \\
 BE_{VOL} \times CM &= FC \\
 CM &= \frac{FC}{BE_{VOL}}
 \end{aligned}$$

Now we can find the CM for these circumstances:

$$\begin{aligned}
 CM &= \frac{\$250,000}{150,000 \text{ units}} \\
 &= \mathbf{\$1.67}
 \end{aligned}$$

Subtracting the CM of \$1.67 from the selling price of \$10, we get \$8.33, the variable cost Acme can incur on each unit and still break even. Similarly, if a \$200,000 profit is desired at the proposed volume, we find that the contribution margin equals \$450,000 divided by

150,000 units or \$3. At this level of desired profit, variable costs must be held to \$7/unit.

This example shows how to use breakeven analysis to help set product specifications. By isolating the allowed cost structure, the right product structure restrictions can be determined and the product engineered to the cost requirements or abandoned.

**Selling Price.** Assume again that variable costs for producing the fork are \$7.50/unit and there are \$250,000 in fixed costs. Add to those data the known sales volume of 150,000 forks and a desire to make a profit of \$100,000 per year. What's the selling price?

$$\begin{aligned}
 CM &= \frac{FC}{BE_{VOL}} \\
 &= \frac{\$250,000 + \$100,000}{150,000 \text{ units}} \\
 &= \frac{\$350,000}{150,000} \\
 &= \mathbf{\$2.33}
 \end{aligned}$$

The price must equal variable cost plus fixed cost:  $\$7.50 + \$2.33 = \$9.83$ . This \$9.83 selling price can now be compared to the existing market price to determine if the Acme fork has a good chance of selling or if the specifications must be altered to get the price down. This approach works well for bidding.

**Advertising Decisions** Advertising is essentially a fixed cost. Any added fixed costs raise a firm's breakeven point and thus require added revenue (or lowered variable costs) to pay for them. The money for fixed costs comes from the contribution margin.

In the Acme electric fork example CM% is 25%. Thus, four additional dollars of revenue are required to cover each additional dollar of fixed cost:  $\$1 \div 25\% = \$4$ . (If the Acme project's CM% were 40%, it would take \$2.50 to cover each additional fixed cost dollar, \$10 if the CM% were 10%.)

So, if Acme is considering a \$2500 expenditure for an ad, it knows it will need  $4 \times \$2500$  or \$10,000 in extra sales just to cover the cost of the ad. Here management isn't trying to guess how much in sales they'll get from the ad. Instead, they know how much they must get to be only as well off as they would be without any advertising. This approach provides a built-in standard for judging the results of advertising. If after an appropriate period added sales aren't enough to justify the cost of the ad, it can be abandoned as an approach.



**Granting Credit.** Suppose Acme is examining a prospective electric fork distributor as a potential credit customer. The distributor expects to buy 500 units per month from Acme. Terms will be net 30 days and it's conservatively estimated the account will turn over eight times per year. What should Acme do?

First of all, when a new account is taken on, the potential loss for the supplier of credit is the variable cost of the balance carried. In addition, the creditor incurs the costs of carrying and administering the account. Assume in this case that carrying costs amount to 10% of the average balance and administrative costs are fixed at \$500 per year for the new account. The average expected balance is found by taking total sales and dividing by turnover.

$$\begin{aligned} \text{Average expected balance} &= \frac{500 \text{ units} \times \$10 \text{ per unit} \times 12 \text{ months}}{8 \text{ times}} \\ &= \frac{\$60,000}{8} \\ &= \mathbf{\$7500} \end{aligned}$$

Fixed costs for taking on this account are, therefore, 10% of this average balance plus the administrative cost:  $FC = (\$7500 \times 10\%) + \$500 = \$1250$ .

To these fixed costs must be added the variable cost of the average balance, 75% of \$7500 in this instance. (That's the \$7.50/unit variable cost divided by the \$10 price—Acme incurs the \$2.50/unit fixed cost up to breakeven regardless of granting credit or, indeed, selling forks.) So, the potential total cost, including possible loss of the outstanding balance, is:

$$\begin{aligned} \text{Total cost} &= (\$7500 \times 75\%) + \$1250 \\ &= \$5625 + \$1250 \\ &= \mathbf{\$6875} \end{aligned}$$

Taking into account that with the fork's CM% of 25%, \$4 of revenue is needed to cover \$1 of additional cost:

$$\begin{aligned} \text{BE}_{\text{account}} &= \$6875 \times 4 \\ &= \mathbf{\$27,500} \end{aligned}$$

Thus, Acme needs \$27,500 in sales to the distributor to insure that the account at least breaks even. Since expected yearly sales are \$60,000, the account should hit that volume in under six months. Again, we've reached the point that managerial judgment must be brought into play.

This is not the most sophisticated approach to credit granting ever proposed, but it does show the expected exposure to loss the account would add. The smaller the contribution margin and the slower the turnover, the higher the risks will be. Knowing the financial circumstances of the firm seeking credit, management can usually judge easily whether or not that firm can pay its bills for six months or whatever the breakeven period turns out to be. This is the creative treatment of risk analysis.

**Labor Costs.** So far the examples have been simple and straightforward. Business life, alas, isn't. In the traditional version of breakeven analysis variable costs generally include items such as material, labor, and overhead. In reality, however, some of these costs may not be variable over the operating range of the company.

Here are the figures from the original Acme example in more detailed form:

|                |                  |                |
|----------------|------------------|----------------|
| Product Price  |                  | \$10.00/unit   |
| Variable Costs |                  | \$ 7.50/unit   |
| From:          | Material         | \$4.50/unit    |
|                | Overhead & Other | \$ .50/unit    |
|                | Labor            | \$2.50/unit    |
| Fixed Costs    |                  | \$250,000/year |

The labor cost is based on five crews of five people each at \$10,000 per person per year with each crew producing 20,000 forks annually.

For simplicity we assumed originally that at any level of production total variable costs were \$7.50/unit. People, however, cannot in reality be shifted that smoothly. Thus, in a narrow range of production some labor costs become fixed in effect. This fact can change the breakeven point of the firm. It also affects the contribution margin and pricing, promotion, and similar decisions.

Using the traditional approach it looked as though the breakeven point was 100,000 units. It also appeared that, if another 10,000 units were made and sold, Acme would make a profit of \$25,000 (10,000 unit  $\times$  \$2.50 contribution margin per unit). In reality, however, the original breakeven represents the effective capacity of the firm. An extra 10,000 units could be produced only if a new crew is put on at a cost of \$50,000. At the 110,000 unit level we actually find:

|       |                           |             |
|-------|---------------------------|-------------|
| Sales | 110,000 units @ \$10/unit | \$1,100,000 |
| Less: | Material @ \$4.50/unit    | 495,000     |
|       | Overhead @ \$ .50/unit    | 55,000      |
|       | Labor: 6 crews            | 300,000     |
|       | Fixed Costs               | 250,000     |
|       | <b>Profit</b>             | <b>0</b>    |





The firm is merely breaking even.

Here, labor has essentially become a fixed cost; overhead and material costs are the only true variable expenses. The CM for the product has changed:

$$\begin{aligned}\text{CM} &= \text{Price} - \text{VC} \\ &= \$10 - (\$4.50 + \$5.00) \\ &= \mathbf{\$5.00/\text{unit}} \text{ (or } 50\% \text{ )}\end{aligned}$$

Fixed costs are the facility costs plus the labor costs for six crews:  $\text{FC} = \$250,000 + (6 \times \$50,000) = \$550,000$ . So now,

$$\begin{aligned}\text{BE}_{\text{VOL}} &= \frac{\text{FC}}{\text{CM}} \\ &= \frac{\$550,000}{\$5.50} \\ &= \mathbf{110,000 \text{ units}} \text{ (or } \$1,100,000\text{)}\end{aligned}$$

Where does that get us? In general, it tells us that the important thing to keep in mind when using breakeven analysis is the true nature of the firm's cost structure. Some firms have a flexible labor force and standard analysis works well.

In many service businesses, however, such as restaurants where idle labor cannot be manipulated smoothly, management must treat such costs differently. In many small businesses certain skilled workers can't be laid off without being lost to competitors. A small printing company with a good press operator or typesetter, for example, can't afford to lay off these key people when business is slow without the risk of losing them permanently. The key to success is to increase revenue to help cover their costs. Pricing these necessary extra sales and making sound advertising and promotion decisions can be greatly aided by using the variations of breakeven analysis discussed.

Breakeven analysis requires above *all* realistic definition of costs, both in amount and type. For many small businesses nearly all costs are fixed. Key people can become fixed costs. To deal with slow periods owner-managers must try to get new business by pricing favorably—marginally. Their products can be sold at a small margin over variable costs, offsetting some fixed costs.

If Acme in the example above were to produce the 10,000 additional forks for which it has available labor capacity and sell them at something above the \$5/unit variable costs, it would make a profit. As long as new business is added to an existing vacancy in capacity, any contribution to covering fixed costs will increase profits or at least reduce losses.



APPENDIX H

Section E

COUNSELLING NOTES



## Small Volume Home Building

(By David J. Rollison, Director of Business Management,  
National Association of Home Builders)

The home building business in the past has offered an attractive opportunity for small businesspeople. Over half of the new single-family homes provided in the United States have been constructed by small volume builders. The small volume builders constructs an average of 20 homes a year, many are built on site for specific buyers. Others are constructed, or "spec" built in anticipation of a buyer.

Traditionally, small builders learn the business from experience in the building and construction trades. However, in today's housing industry abilities beyond trade skills are needed. Marketing, finance, land acquisition, negotiation, work coordination (including planning, forecasting, and subcontracting), accounting, and other skills are required. It is also important that builders keep up with the latest industry developments in cost saving devices, federal housing programs, and local construction regulations. Builders must be familiar with interest rate trends and mortgage market developments. The small builder must be aware of all national forces that eventually will effect local housing markets.

There are basically two types of single-family builders, the custom builder and the speculative or tract builder. Basically both operate out of homes or small offices. The custom builder obtains a contract to build a house for a fixed fee or percentage over cost. The builder may use subcontractors on every phase of construction.

The "spec" builder who builds in hope of finding a buyer should plan to have enough working capital to live on for two years. The "spec" builder will need down payment for land, which usually cost 20 percent of the house sales price. Builder will need to arrange for a construction loan in order to build the "spec" house. A good credit rating is essential because builders are personally liable on all loans and notes. Ideally, the home builder should make a net profit before taxes of 10 percent.

Equipment needs vary with the scale of a builder's operation. Most builders need a pick-up truck, electric generator, storage space, possibly a heating device, and eventually an office and associated equipment.

Small businesspeople have been the backbone of the single-family home building industry. In recent years, however, changes such as rising materials costs, higher interest rates, rising land prices, and inadequate cash flow have reshaped those elements that in the past brought builders success.



As a result of these changes, the successful builder must conduct some form of market research before beginning a new project. Basically, market research is defining the housing needs of the region the builder services (or market) in terms of price and specified types of housing people desire. Typical marketing research endeavors would include analyzing the reasons for the success or failure of a competitor's recent project, researching the age and income distributions of the population in an area and from it predicting future trends. For example: If an increasing number of young married couples are moving into a community, the housing needs of the community will rise. A builder might then try to learn the income distribution of this group. This data will then give a contractor a clue to the specific type of housing and price range that will respond to the needs of these young couples. When the builder feels a survey has correctly been completed, plans can then be developed for both the types of housing to be constructed and also the sales promotion activities to follow.

Builders may be required to be licensed and to follow local building codes. Specific information in these areas generally can be obtained from local authorities. The latest mortgage and Federal agency information is available from the National Association of Home Builders, Mortgage Bankers Association, Federal Home Loan Bank Board, and local savings and loan associations.

The sources of information shown below may be helpful to anyone planning to enter the small volume home building industry.

Federal Home Loan Bank Board  
101 Indiana Avenue, N.W.  
Washington, D.C. 20552

Mortgage Bankers Association of America  
1125 15th Street, N.W.  
Washington, D.C. 20005

National Association of Home Builders  
15th and M Streets, N.W.  
Washington, D.C. 20005

How to Start Your Own Small Business, Drake Publishers, Inc., New York, 1973.

Construction Company Organization and Management, George E. Deatherage, McGraw Hill, 1964.

"Business Plan for Small Construction Firms," Management Aid No. 221. Small Business Administration, U.S. Government Publications (Free)

"Starting and Managing a Small Business of Your Own," Starting and Managing Series No. 1:15:1, Small Business Administration, Superintendent of Documents, Washington, D.C. 20402.

Small Business Administration  
Office of Management Information and Training

Revised  
March 1979





## Roofing Contractors

By Fred C. Good  
National Roofing Contractors Association  
Oak Park, Illinois

Roofing contracting is a part of the construction industry. The roofing contractor often acts as both a sub-contractor and as a direct or general contractor. In performing sub-contract work, the roofing contractor may be employed by a general contractor or a home remodeler and bid work to the general contractor. Essentially, work is performed for the general contractor. In the field of direct contracting, the roofing contractor may work directly for the building or home owner. In either case the owner of the business is involved in the construction process. The contractor must be prepared to estimate and bid for work; have labor available to perform the work; to be able to effectively purchase materials to be installed; and to see that the work is completed efficiently, according to specification, and within a prescribed period of time.

Long hours—often 12 to 14 a day—are common. A contractor takes great pride in work that is acceptable and feels a definite part of the community as he/she is a part of the construction process.

To be a successful small business person, it is important that the individual has some experience with the process of roof construction, including knowledge of the materials used, types of construction involved, management of labor, and coordination with other building trade contractors that may be involved in the process.

In the roofing/contracting business, there are firms that pursue only the large industrial/commercial type of construction. There are many smaller firms that pursue residential shingling and remodeling roofing types of work. The capital requirements of the person beginning in the roofing business will, of course, vary, depending on the type of work pursued. A person starting a small business will do some residential contracting and perhaps some maintenance and repair work on homes and smaller two, four and six-flat apartment buildings. Estimated capital requirements would be \$10,000 to \$20,000. Purchases would require at least one truck and some equipment for the handling of materials, including a hoist and trailer, a kettle and some brooms, shovels, and buckets. These can often be purchased second-hand

or, if purchased new, can be financed over a three-year period.

A suitable location from which to operate the business and some storage space for working materials and equipment will be required. For dealings with the supply houses, the small roofing contractor should have established a good credit rating, or have adequate cash on hand for materials until a good relationship with supplier is formed.

The small business owner will need to investigate the various legal and regulatory requirements necessary for business. Insurance is mandatory and bonding should be available for some work projects. Workers compensation insurance for the work force will be required and business licenses and permits, depending on the particular locality in which the work is being performed. There must be compliance with the Occupational Safety and Health Act (OSHA), and should the contractor perform any work involving the use of Federal funds, there has to be compliance with the equal employment and affirmative action programs. This of course will apply to contracting work done for all levels of Government, for instance a small repair on a local school or on a municipal building.

On the limited capital investment that has been proposed, the contractor should anticipate doing a volume of \$50,000 to \$60,000 annually in sales. This sales volume should guarantee a salary to the owner/manager of about 20 percent of annual sales and should allow a small return on capital investment. As business continues, contractor should plan to increase sales to a volume of \$100,000 to \$150,000 annually, which should increase the return on investment and allow purchase of additional equipment and additional sources of business.

One of the advantages of a profession in the roofing industry is the relative stability of the industry. There is always need for basic shelter and for roofing on all types of new construction. Additionally, there is always a need to repair and maintain existing structures. The roofing contracting business is an industry that can



survive periods of recession. The business is often thought to be seasonal. While it is true that outside work can only be done in suitable weather, inside repairs and estimating work can be carried on continuously.

**For Further Information:**

National Roofing Contractors Association  
1515 North Harlem Avenue  
Oak Park, Illinois 60302  
Publications: *The Roofing Spec*;  
*Action Information* (bulletin)

United Union of Roofing  
Waterproofing and Allied Workers (RWA)  
1125 17th Street, N.W.  
Washington, D.C. 20036



## Paint and Decorating Centers

(By Professor John E. Trotter, Concord College, Athens, W. Va., in consultation with the National Decorating Products Association, St. Louis, Mo.)

Paint and wallcovering stores have evolved into more than 14,000 Decorating Centers in the United States, many of which are a part of large corporation-owned chains. Despite the competition from large corporations, the independent decorating center has flourished over the past decade. The greatest strength of the independent decorating center is in small town and rural America, yet many have been highly successful in big cities. The key to this success is long hours and product knowledge.

Much of the independent decorating center's business results from the ability of the store personnel to counsel with their customers. It is important to know what type of paint should be used on what type surface, how the surface should be prepared before painting or hanging wallcoverings, what type adhesive is used with what type wallcovering, what type paint applicator should be used on various jobs, and so forth. Many store owners either attend or send employees to decorating and interior designer schools so that they can advise customers on the total decorating job. Unlike most retail stores, decorating centers have not gone to check-out counters because this destroys the personal relationship with customers.

### Equipment Selection

Decorating Centers have broadened their product line by moving into such fields as art materials, wall decorations, floorcoverings, window treatments, picture frames, and spray equipment. Today, the average Decorating Center does approximately 75 percent of total sales in the paint and wallcoverings departments and 25 percent in other product lines. The growth trend in the "other product category" is still continuing, especially the window treatments department.

### Capital Requirements and Operating Patios

The investment required to open a Decorating Center will vary from one area of the country to another and from one part of town to another, depending upon the occupancy costs and salary rates. In addition to these expenses, store fixturing, signs and inventory stock represent an investment of \$50,000 to \$70,000. Many paint manufacturers, since theirs is the largest volume line in most stores, are willing to help with initial financing or to offer 60-90 day billing on the paint inventory. This is particularly true in the case of a decorating store manager with proven sales ability and knowledge.



Often a Decorating Center requires 9 to 15 months to reach the break-even point. Sales should reach \$150,000 by the end of the second year, and \$200,000 by the end of the third, with a net profit of about 15 percent before taxes. The general gross profit margin on decorating products is 40 percent before expenses. As a rule, one employee is required for each \$50,000 to \$60,000 in sales.

#### Store Operations and Marketing

The paint manufacturer can be of great help within the scope of operations and marketing. Many paint companies have a special department devoted entirely to site selection, store layout and design, and inventory selection. Other companies have salespeople or regional managers in these areas. Also, most paint manufacturers offer a co-op advertising program. This program will include payment of part of the advertising expenses, layout for newspaper advertising, radio commercials, and store display material.

All State and Federal regulations regarding the operation of a retail business apply.

Sales growth for Decorating Centers has been at the rate of 15 percent per year in recent years and this is expected to continue.

#### Information Sources

National Paint, Coatings Association  
1500 Rhode Island Avenue, N.W.  
Washington, DC 20005

National Decorating Products Association  
9334 Dielman Industrial Drive  
Saint Louis, Mo 63132

Wallcoverings Manufacturing Association  
Wallcoverings Information Bureau  
P.O. Box 359  
Springfield, NJ 07081





APPENDIX H

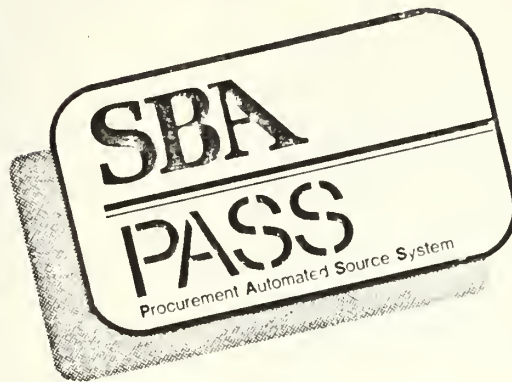
Section F

PROCUREMENT AUTOMATED SOURCE SYSTEM

(PASS)



U.S. Small Business Administration  
Office of Procurement Assistance



*For Buyers and Suppliers--*

*Get the PASS to sales and  
purchasing opportunities.*



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## What Is PASS?

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Every work day, businesses and governments award contracts and subcontracts for supplies and services valued at millions of dollars. In 1977, U. S. Small Business Administration (SBA) established the Procurement Automated Source System (PASS) to assist small businesses in competing for these opportunities.

PASS is a national automated directory of small suppliers of goods and services. Presently, it lists profiles of almost 150,000 companies, including over 26,000 minority-owned and 27,000 women-owned firms.

PASS provides benefits to both buyers and suppliers. It enables procurement offices to quickly identify small companies meeting their procurement needs. At the same time, it provides small businesses with a valuable marketing avenue for entering the Federal marketplace or expanding their existing Federal contracts.



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## SUPPLIERS - Why List Your Company In PASS ?

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By listing your firm in PASS, you can increase your marketing opportunities. PASS is actively used by purchasing officials from private industry and the public sector to find potential suppliers of goods and services. Although no one can guarantee new business, listing your firm in PASS is an effective addition to your regular marketing and sales efforts.

### WHAT DOES IT COST?

Listing your company in PASS is free. Increasing the number of companies in the directory makes PASS more valuable to its users--and, ultimately, to you.

### WHO CAN APPLY?

To qualify for PASS, your firm must be an established, independently-owned small business that is operated for profit in the United States.

### HOW TO LIST YOUR COMPANY

To list your company's profile in PASS, obtain a PASS COMPANY PROFILE form from your nearest local SBA office or by writing to the address shown below. Fill out the form as completely as possible. Your company will be listed under the goods, services, special capabilities, and general categories that you write on the form. Then return the postage-paid form to:

U.S. Small Business Administration  
PASS Program--Room 600  
1441 L Street, N. W.  
Washington, D. C. 20416



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## **BUYERS - Why Use PASS?**

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PASS saves you time and money. Below are just a few of the system's features:

### **PASS is FAST**

Why waste frustrating hours leafing through phone books, old catalogues, files, and scraps of paper? Simply enter your purchasing criteria to the computer, and get a list of profiles for small businesses that provide the needed goods or services.

### **PASS is FLEXIBLE**

If the listing is too long or too short, simply alter the criteria for a new list of business profiles. PASS offers a wide variety of search criteria, such as the company's product or service, geographic location, labor surplus area, and type of business (e.g., minority-owned). The system will also allow searches by SIC Codes and Federal Supply Codes. Information about a firm's Quality Assurance program and DUNS number will also be available.

### **PASS is COMPREHENSIVE**

PASS is the most comprehensive data base of small business suppliers now available. Presently, PASS lists profiles for almost 150,000 companies and more businesses are continually being added. Up to 200 profiles can be printed at once.

### **PASS is ACCURATE**

Maintaining an accurate data base is a top priority for the PASS system. Annually, each business listed in PASS is sent an update form. If no response is received, the business is dropped from the system.

### **PASS is EASY to LEARN and USE**

Learning and using PASS is simple and straightforward. Periodically, SBA schedules special training support around the country. However, for people who have a basic familiarity with personal computers, SBA provides a self-instructional training package, including a training diskette and a users manual. In most cases, this is all that is necessary to learn PASS quickly.

### **PASS includes technical SUPPORT**

SBA's PASS contractor provides a free HOTLINE to assist you in learning and using PASS. This service is available during business hours throughout the country and provides quick support for PASS users.

### **PASS is EASY to INSTALL**

PASS can be easily installed on almost any computer capable of connection to a 300-1200 baud modem. This computer, or terminal, with a modem and a good quality telephone line is required for direct access. Chances are the equipment you already have will work. If you have questions, the PASS contractor will provide the necessary technical assistance.

### **PASS is REASONABLY PRICED**

The cost of installation varies with the type of terminal/computer you use, the features you require, etc. The PASS contractor will advise you. The charge for using PASS, which is determined by the amount of "on-line" use, is reasonable. There are no registration fees or minimum use requirements. Bills are issued quarterly.













Thesis

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Small business administration impacts on



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