

Competitive Contracting: Opportunities to Improve Service Delivery and Save Money

May, 1995



Office of the City Auditor
Portland, Oregon



CITY OF
PORTLAND, OREGON
OFFICE OF CITY AUDITOR

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May 30, 1995

TO: Mayor Vera Katz
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Commissioner Charlie Hales
Commissioner Gretchen Kafoury
Commissioner Mike Lindberg
Carlton Chayer, City Purchasing Agent

SUBJECT: Competitive Contracting : Opportunities to Improve Service Delivery
and Save Money, Report #179

Attached is our evaluation of City competitive contracting practices and opportunities. The audit was conducted in accordance with our FY 1994-95 audit schedule. A summary of results is provided at the beginning of the report.

The Mayor's Office, the Purchasing Agent, Bureau Directors and Union Officials have reviewed the report and are in agreement with the information presented. Written responses to the report are included in the final appendix.

We hope this report will help managers throughout the City improve service quality and save money. Model guidelines and procedures are included to facilitate these goals.

In accordance with City Charter Section 2-505 (b), we ask for a written status report from the City Purchasing Agent in six months, indicating what actions have been taken on our report recommendations. This status report should be circulated to the City Auditor, the Mayor and the City Commissioners.

We appreciate the cooperation and assistance received from Bureau Managers and the Purchasing Agent in conducting this audit.

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A Report by the Audit Services Division
Report #179

Office of the City Auditor
Portland, Oregon

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Opportunities to Improve Service
Delivery and Save Money**

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Summary

Portland and other cities buy a variety of goods and services from private businesses. In addition to items such as office supplies and equipment, many governments buy services from the private sector that were traditionally provided by public employees. Two common examples are garbage pickup and street repairs. Last year alone the City of Portland contracted over \$100 million of construction, engineering, and other professional services.

We evaluated competitive contracting in Portland and other city governments to assess successes and failures and to identify factors that lead to effective contracting. We conducted an extensive literature search and tested the soundness of a *cost comparison methodology* recently developed by Portland's Water Bureau.

Contracting Public Services: Results Are Mostly Positive

We found that municipal governments use private vendors to provide almost any type of service. Public works and business services are most commonly contracted out but some cities have used private companies to provide fire protection, libraries, and personnel services. Cities contract services for several major reasons:

- to gain cost savings

- to add flexibility to changing workload demands
- to gain specialized skills and equipment
- to acquire higher quality products or services

As more governments begin to compare the cost and quality of services provided by public employees to those provided by private firms, public managers are finding benefits other than cost reduction. Specifically, public services subjected to market competition become more innovative and productive, and public employee morale improves as employees learn to succeed in a competitive environment. The cities of Phoenix, Indianapolis, and Philadelphia all report that public employees learned how to compete effectively against private providers, offering quality services at a lower cost. Here in Portland, too, public employees in the Water Bureau are finding ways to do things more economically in order to compete with private firms for specific construction projects.

Contracting Also Has Risks

We also found that privatization experiences are not always successful. Portland and other cities and states report that contracting public services sometimes results in higher costs, poorer services, missed deadlines, and significant corruption and waste. For example, New York City contracted parking citation collections to a company which sought to ensure their business by bribing city officials to award contracts without competitive bidding. Also, a company hired by Washington, D.C. to haul and dispose wastewater sludge failed to obtain business permits and equip-

ment financing, causing the city to incur an additional \$6 million in expenses to remove the waste. Moreover, two of our nation's biggest government programs, Medicare and military weapons procurement, are provided largely by the private sector and have been reported to have run up billions of dollars in waste and fraud.

Key Steps to Success

Our research shows that significant opportunities exist to introduce the benefits of public-private competition to the City of Portland. However, a number of specific conditions need to be in place to provide some assurance of success. In particular, the City should pursue a systematic approach to competitive contracting that includes the following principles:

Broad and open competition

The benefits of the market place are achieved by competition rather than by whether the service is delivered by public or private employees. Public providers should compete fairly and openly with private firms to reduce the inefficiencies of monopolies, public or private. Adequate competition between a sufficient number of rivals is needed to produce innovation.

Thoughtful selection of services to bid

A number of real barriers exist to successful contracting: lack of competitors, political resistance, a high risk of failure, unclear or unmeasurable performance requirements, need for government control, and adverse impact on public employees. If real barriers cannot be removed or miti-

gated, competitive contracting may not be feasible or advisable.

Credible cost comparison and selection process

Private and public competitors must believe they will be treated fairly. The methods for comparing costs should be clear, reasonable, and unambiguous. Bid review and selection should be managed by an independent third party.

Effective contract management

The contract must contain clear performance standards, measurable success targets, and incentives and/or penalties to reduce poor performance. It must be monitored carefully and enforced fairly to ensure that providers meet desired expectations. Periodic audits should check results.

We believe Portland citizens would benefit if all appropriate services in the City of Portland are subjected to a meaningful test in the competitive market. Obviously, some services are not well suited for contracting, for example, policy making, regulation, and oversight. Nevertheless, many services provided by public employees in Portland offer likely opportunities for competitive contracting. Portland bureau managers have identified several candidates. Other cities report good track records in services Portland should consider competitively contracting.

Recommendations

We recommend that bureaus throughout the City test the quality and cost competitiveness of services. After the determination that a service is a good prospect for competitive contracting, initiation of a formal bidding process may

be the best way for larger programs to proceed. Smaller services may benefit from informal bidding or by comparing costs with private and other public providers.

To help the City of Portland improve competitive contracting, we present several tools and models in this report. A simplified cost comparison methodology is summarized from a detailed and rigorous method developed by the Water Services Partnership Group for Improvement. The competitive contracting process flowchart was developed with assistance from the Purchasing Agent and Water Bureau staff. We also use feasibility analysis worksheets from the State of Colorado.

Introduction

Audit Objectives Governments around the country are actively exploring ways to provide public services more effectively and efficiently. Contracting for services is one method used by many. We conducted this audit because competition appears to offer opportunities to improve service delivery and lower costs. The audit had four objectives:

- assess the extent to which Portland and other cities contract for services
- find out whether there are additional opportunities for Portland to contract for services
- identify and evaluate contracting benefits and problems by reviewing research and literature and interviewing managers about their experiences
- identify methods and procedures that hold promise for improving contracting practices in the City of Portland

Background Information As citizens grow more concerned with the cost and quality of government services, finding ways to control spending has become an important focus of all government officials. When government services are public monopolies, they lack market incentives to control costs and promote qual-

ity. The solution advocated by some is to introduce private businesses into government service delivery.

Over the past twenty years all levels of government have involved private sector providers in service delivery. President Ronald Reagan created the Grace Commission in the 1980s to explore government efficiencies and privatization efforts in the federal government. More recently, Vice President Gore's National Performance Review advocated contracting for government services as one method to help reinvent government so that it would work better and cost less. The states of Colorado, Texas, and Massachusetts report a number of successful experiences with service contracting.

Local governments have also been active in introducing private sector competition to government service delivery. Phoenix, Indianapolis, Philadelphia and Cincinnati report millions of dollars saved by introducing private sector competition.

As governments experiment with private sector contracting and learn more about competition in government service delivery, it is clear that there are a number of ways to involve the private sector in service delivery. The three basic approaches are to privatize, to contract out, and to introduce public-private competition.

Privatize

With this approach, governments give up responsibility for the service. Responsibility is transferred to the free-enterprise marketplace and service becomes a private matter. Although this approach is common in Europe and in countries with a history of nationally owned industries, governments in the United States rarely use this method

because America has generally kept enterprises and assets private to begin with.

Contract out

This approach is the most commonly used method for introducing the private sector into government. Government retains responsibility for the performance of services but selects a private company or another agency to carry out the function. Service performance is usually defined in contract specifications and monitored by a good project/contract manager. If a contractor fails to satisfy the terms of the agreement, legal remedies are available to redress the problem.

Public-private competition

This new approach takes the idea of competition beyond the usual private versus public terms. It allows governments to compete against private sector firms for the right to provide services. This approach seeks to maximize competition without making prior judgements about which sector, private or public, should provide the service. Government retains responsibility for the service but participates in a competitive market to help lower costs and improve services.

Scope and Methodology

To address our audit objectives, we researched the literature and current studies, interviewed managers, union representatives and private-sector vendors, and reviewed contracting efforts in Portland and other cities. Our comprehensive literature review identified the most relevant and current studies, articles, and reports on the topics of government contracting, privatization, and public-private

competition. We used the Internet to access information from federal, state, and local governments and non-profit and academic institutions. We also worked with the International City/County Managers Association (ICMA) to obtain data from their 1992 survey of contracting practices in 850 cities. Appendix A lists the most relevant information we reviewed.

To identify opportunities for additional contracting in Portland, we interviewed more than 30 managers from nine different City of Portland Bureaus in the fall of 1994. We also met with representatives from employee unions and from private construction contractors to identify specific concerns and obtain their ideas regarding contracting for government services.

We also reviewed three specific contracting and privatization efforts carried out in Portland over the past few years. Both the Office of Transportation and the Bureau of General Services analyzed the feasibility and cost of contracting out several services currently provided by public employees. We also reviewed a current major effort underway at the Water Bureau. We contracted with Dr. Lawrence Martin from Columbia University to evaluate the reasonableness of the cost comparison methodology developed by the Water Bureau Labor-Management Committee to compare public employee project costs to project costs bid by private vendors. Finally, we met with the Bureau of Purchases, the Office of Finance and Administration, and representatives from the Mayor's and Commissioners' offices to obtain input on administrative, management, and policy issues.

We conducted our review in accordance with generally accepted government auditing standards.

1

Cities Use Private Vendors to Provide a Wide Variety of Services

Our literature research and interviews with City of Portland managers indicates that Portland and other cities use the private sector to provide a great number and variety of services. A 1992 study issued by the ICMA surveyed over 850 cities regarding their contracting practices. The ICMA found that all cities reported at least some service contracting. Twenty cities comparable in size to Portland (250,000 to 500,000 population) reported significant use of contracting and other service delivery alternatives.

Donald Kettl of the Brookings Institute, in his recently published book, *Sharing Power: Public Governance and Private Markets*, concluded that almost everything can be and has been contracted out, that almost everyone contracts out something, and that everyone contracts out different things. Tables 1 and 2 show the services most and least frequently contracted, at least in part, in cities similar in size to Portland, according to the ICMA 1992 survey. Some categories of service that are significant sources of contracting were not included in the ICMA survey including engineering, construction, and printing services.

Table 1 Most Frequently Contracted Public Services

Service	% of Cities responding *
Operation of homeless shelters	100
Disposal of Hazardous waste	100
Drug/Alcohol Treatment	100
Mental Health Programs	100
Transit Operations/Maintenance	92
Public Health Programs	90
Commercial Solid Waste Collection	90
Vehicle Towing/Storage	89
Operation of Cultural/Arts Programs	89
Ambulance Service	86
Child Welfare Programs	86
Tree Trimming/Planting	85
Street Repair	79
Solid Waste Disposal	79
Building Security	78
Daycare Facility Operation	75
Parking Lot/Garage Operation	74
Elder Programs	73
Prisons/Jails	71
Heavy Equipment Maintenance	70

* Twenty cities surveyed, 250,000 to 500,000 population

SOURCE: Alternative Service Delivery in Local Government 1982-92, ICMA Municipal Yearbook (1994).

Table 2 Least Frequently Contracted Public Services

Service	% of Cities responding *
Payroll	0
Traffic Control/Parking Enforcement	5
Personnel Services	10
Fire Prevention/Suppression	10
Data Processing	15
Water Treatment	15
Inspection/Enforcement of Buildings	15
Insect/Rodent Control	15
Sanitary Inspection	15
Crime Prevention/Patrol	20
Police/Fire Communication	20
Parking Meter Maintenance/Collection	24
Water Distribution	25
Library Operation	25
Secretarial Service	30
Recreation Facility Operation/Maintenance	32
Public Relations	32
Utility Meter Reading	33
Traffic Sign/Signal Installation/Maintenance	35
Park Landscaping/Maintenance	37

* Twenty cities surveyed, 250,000 to 500,000 population

SOURCE: Alternative Service Delivery in Local Government 1982-92, ICMA Municipal Yearbook (1994).

The Mercer Group, a consulting firm from Atlanta, Georgia, found in their “1990 Privatization Survey” that most local governments contract for engineering, management consulting, major construction, food services, legal services, and architectural services. More than a quarter of 120 cities contacted by Mercer reported contracting for janitorial services, solid waste collection, building maintenance, security, towing, and landscape and park maintenance. The largest contract amounts were for construction, fire protection, transportation services, data processing, landfill operations, and street maintenance and repair.

Portland’s contracting practices are similar to other cities of Portland’s size. Portland provides a full range of municipal services, and many services are provided fully or partially by the private sector in accordance with various contracts and agreements. In FY 1993-94 the City hired private contractors for \$88 million of construction, including street repairs, water lines, sewers, and buildings. In addition to construction, the city spent over \$16 million on various professional consultants including engineers, lawyers, architects, telecommunications experts, and auditors. Some of the major municipal services provided either fully or partially by private contractors in Portland are shown in Table 3.

Table 3 Examples of services provided by private contractors in the City of Portland

Partially	Fully
Health/Life Insurance	Parking Lot Management
Computer Programming	Garbage/Recycling
Fleet Maintenance	Building Janitors
Insurance Claims Handling	Parking Meter Coin Collection
Parks Recreation Classes	Tennis Center Management
Street/Road Maintenance	Building Security

SOURCE: City Auditor interviews with Portland bureau managers in 1994.

In addition to large service contracts, the City purchases a significant amount of smaller goods and services, including temporary secretarial help, banking and financial services, and graphic arts and communications. The remaining contract areas, equipment and supplies, are satisfied through purchase orders.

2

Managers Believe Opportunities Exist to Compare Public and Private Service Costs

Portland managers we interviewed believe there are additional opportunities for competitive contracting of services, and several bureaus have compared public and private costs. In the fall of 1994 we interviewed 30 managers and staff members representing nine different bureaus. We asked managers four basic questions:

- What are the major activities/services your bureau provides through contracts with private vendors/companies?
- Are there other activities/tasks/services that you conduct with public employees that could be performed by private companies -- competitively bid?
- What do you believe are the major barriers to competitively bidding activities that are currently provided by public employees?
- Any ideas/suggestions for helping overcome barriers to competitive contracting?

A number of factors were barriers to more experimentation. Table 4 shows that most managers we talked to believe there are opportunities to contract for services currently provided by public employees. However, managers also identified significant barriers to contracting out.

Table 4 Opportunities and Barriers to Competitive Contracting: City Bureau Managers' Opinions

Interviewed Bureaus	Opportunities to Contract?		Major Identified Barrier
	Yes	No	
Office of Finance and Administration	✓		Managers are threatened
Water Bureau	✓		Employees are threatened
Bureau of Environmental Services	✓		Policy issues require in-house control
Parks and Recreation	✓		Lack of actual costs/ sufficient program descriptions
Transportation	✓		Lack of a consistent cost comparison methodology
Police		✓	ORS restriction on delegating police powers
General Services	✓		Union restrictions
Bureau of Buildings	✓		Shortage of qualified labor
Fire, Rescue & Emergency Services	✓		Union restrictions

SOURCE: City Auditor interviews with Bureau Managers in 1994.

Table 5 lists some of the services currently provided by public employees which were mentioned most frequently as likely candidates for cost comparison with private providers. In addition to specific services, managers also identified situations which provide opportunities for contracting.

Use of expert or specialty skills could be expanded. Seasonal or temporary work opportunities exist to level the workload or respond to short-term labor requirements.

Table 5 Portland City Services Offering the Most Potential for Competitive Contracting

Landscape & Grounds Mainten.	Mail Presorting
Telephone System Maintenance	Construction
Recruitment and Selection	Ambulance Service
Golf Course Maintenance	Horticultural Services
Engineering Services	Personnel Arbitration
Traffic Signal Maintenance	Urban Forestry
Adult Athletics	Recreation Classes

SOURCE: City Auditor interviews with Portland bureau managers in 1994.

Several bureaus have studied competitive contracting as a means of reducing costs. The Office of Transportation compared in-house costs to private vendor costs for asphalt overlay projects and for engineering inspection. In the paving comparison it was found that private and City crews were able to accomplish a similar amount of work but the City crew paving density was better. A disagreement over cost savings focused on how costs were allocated. The Office of Transportation report also concluded that con-

tracting a significant portion of the resurfacing program would negatively impact a variety of bureau programs and other bureaus which rely on Bureau of Maintenance services.

The second Office of Transportation study examined the costs of filling seasonal peak demand for street inspection services. The demand had been met by hiring part-time construction inspectors, but qualified personnel were difficult to locate and retain. Eighteen projects were contracted out. Analysis of the projects showed that both private and City inspectors performed acceptably in terms of cost and quality of performance. All projects were completed on time and on budget but the consultant-supplied private inspectors saved approximately \$78,000 in salaries over the cost of hiring permanent staff.

Parks and Recreation examined contracting opportunities in two programs in 1993. The study looked at City and contractor concerns raised by contracting services provided by the Horticulture and Forestry departments. Each function was assessed against a technical factors model. A test competition was conducted with bids developed for services found appropriate for contracting. Private contractor bids were solicited and compared to Bureau bids by an independent committee. City costs were lower than the contractor bids for the services studied.

The most comprehensive and thorough evaluation of public and private service costs in the City of Portland has been conducted by the Bureau of Water Works using a group of representatives from a labor, management, and elected officials called the Water Service Partnership Group

for Improvement (WSPGI). The WSPGI was established in 1993 to study ways to improve the quality and lower the costs of Water Bureau services. Over an 12-month period, a subcommittee of WSPGI studied and developed a methodology to compare in-house costs with private sector costs for selected Water Bureau construction projects. Comparing City crew costs with bids from seven other private vendors showed public services could be competitive.

Because we believe the cost comparison methodology developed by the Water Bureau's WSPGI holds great potential for application City-wide, we hired an independent expert to evaluate the soundness of the methodology. A more complete description of the methodology and results of our independent assessment is contained in the next section of this report (pages 29-33) and in appendices C and D.

3

Contracting Produces Good Results, But Not All Experiences are Positive

Research shows that the contracting of services offers governments significant benefits. The most comprehensive and empirical research efforts have been conducted by the following groups: U. S. Department of Housing and Urban Development (1984), Touche Ross (1987), and the International City/County Managers Association (1982, 1988 & 1992). In addition, a number of academicians around the country have written books and articles that provide evidence of the value of contracting and the conditions needed to ensure success. However, we also found some governments efforts to contract services did not succeed. Experts believe certain conditions in place provide assurance that contracting will be successful.

Many studies and researchers found that contracting with the private sector saved money. An extensive study of cities in the Los Angeles area, conducted in 1984 by Ecodata, Inc., for the federal Department of Housing and Urban Development (HUD) found cost advantages when private contractors were used. This study looked at eight services in 20 different cities and found that for every service except for payroll preparation, using private contractors provided a statistically reliable cost advantage. As

Table 6 Percent Municipal Costs Exceed Private Contractor Costs

Service	Percent Over Private Costs
Asphalt Overlay	96%
Janitorial	73
Traffic Signal Maintenance	56
Street Cleaning	43
Turf Maintenance	40
Trash Collection	28-42
Tree Maintenance	37
Payroll	0

SOURCE: "Delivering Municipal Services Efficiently: A Comparison of Municipal and Private Service Delivery" Ecodata, Inc., for U.S. Dept. of Housing and Urban Development, 1984.

shown in Table 6, the excess cost of municipal delivery ranged from 37 percent higher for tree maintenance to 96 percent for asphalt laying.

A survey of 1,086 American cities and counties in 1987 by Touche Ross found similar results. Cost savings was the major motivation for contracting specific services. Most reported savings of 10 percent to 30 percent. Ten percent of respondents reported savings of 40 percent or more.

The reasons most frequently cited for contracting for services are identified in research done by Harry Hatry of the Urban Institute. These objectives are to:

- reduce service delivery costs
- provide a higher-quality product or service
- compare costs between in-house and outside service delivery
- gain access to specialized skills and equipment
- avoid high start-up costs
- provide flexibility in adjusting the size of a government program, service, or activity

Success stories The literature we reviewed provided a number of examples of specific successes with contracting for services. Here are four of the most impressive.

- Indianapolis opened 150 services to competitive contracting. The competition achieved a reported annual savings of \$28 million. Six of the contracts were awarded to existing public work groups. These groups averaged savings of 25 percent over the previous services costs.
- Massachusetts reported savings of \$273 million in 1993 from opening services to competition. Savings came from reduced operating costs, avoided capital costs and more revenues. Massachusetts also saw quality improvements through accreditation of previously unaccredited hospitals, improved hospital bed utilization, and recreation service expansion.
- In the early 1980's the City of Gresham, Oregon expanded and improved its wastewater treatment plant. However, because existing city employees lacked expertise to operate the

new equipment, a private firm was hired to operate the plant. Over the past ten years, the city has rebid the operating contract twice, selecting private operators each time. According to management, plant operating costs and quality compare very favorably to other publicly operated plants in the state.

- Phoenix opened a variety of services to competition. Refuse collection costs were reduced by \$13.8 million over a fourteen-year period during which city and private contractors each won the contract three times. The City won a competition for emergency transportation services, producing savings of \$2.9 million over 10 years and improving response times.

Risks and Failures

Contracting for services does not always result in cost savings or improved performance. Several of the federal government's largest programs, including medicare and military weapons procurement, are provided largely by the private sector and have reported billions of dollars of waste and abuse. We found numerous examples of failures and unsuccessful contracting. For example:

- New York City parking citation collections were contracted out in the mid-1970s. Contractors earning \$15 million annually, sought to ensure renewal of contracts by bribing city officials to award the contracts without competitive bidding and by hiring former city officials to lobby the Parking Violations Bureau to influence contract awards. In 1986 more than a dozen federal indictments resulted in several convictions related to bribery and influence.

- In 1980 the District of Columbia entered a five-year, \$20 million sludge hauling contract. The private contractor had no experience in the sludge hauling business and was unable to secure the necessary permits and equipment. Thus, unable to perform, the contractor defaulted on the contract. The District was then saddled with an additional \$6 million expense to ensure that the sludge was properly disposed of.
- In 1990 the City of Portland hired a private firm to repair and maintain four new street sweeping machines under a three year contract. Although street sweepers had been previously maintained by City fleet maintenance staff, maintenance managers hoped to lower costs by using a private contractor. However, after the first year when the machines were under warranty, the contractor continually claimed that repairs were necessary because of operator negligence and not covered by the contract. After the second year, the company went bankrupt and walked away from the contract. City attempts to sue were fruitless because the company had few assets. Subsequent requests for bids produced no bidders and the City once again maintains the sweepers.
- Alameda County, California awarded a hospital management contract to a private firm in 1978 after passage of the Proposition 13 tax limitation. The firm made a number of cuts in administrative costs but fell behind in collecting bills due the hospital. At the end of the two-year contract, the county did not renew it

because the company had lost \$6 to \$8 million in charges due the hospital that were not collected on time.

- The City of Fairfax, Virginia looked at contracting pre- and post- school daycare services for children in kindergarten through sixth grade. Parents of these children strongly objected to the change in service. The plan was cancelled before implementation.

4

Systematic Competitive Contracting Offers Best Chance for Success

Our research indicates that the benefits of private sector delivery of public services can be enhanced, and the risks reduced, by pursuing a process that includes:

- broad competition
- thoughtful analysis of which services to submit to competition
- credible cost comparison and selection processes
- effective management and monitoring of results

Competition

According to the experts, it matters less who provides services (private versus public) than how services are provided (competition versus monopoly). According to academic and policy analyst, Donald Kettl, “Private monopolies are just as subject to inefficiencies as is the government monopoly. It is the presence of competition, not the locus of power, that matters.”

Similarly, Harvard professor and policy analyst, John Donahue, states, “The kick from privatization [contracting out] comes from the greater scope for rivalry . . . not from

private provision per se.” Mayor Stephen Goldsmith of Indianapolis says, “We in Indianapolis are not actually in favor of privatization. Instead, we are in favor of competition.”

Organizations with diverse interests and ideologies are promoting and supporting the idea of broad public-private competition. Both the Reason Foundation, a nonprofit organization supporting privatization of government services, and the American Federation of State, County and Municipal Employees, the largest public employee union in the country, have supported competitive contracting efforts that allow public employees to compete against private firms for the right to provide services.

Dr. Lawrence Martin of Columbia University in New York, a foremost authority on public-private competition, writes: “Under the new competition, in-house government departments are going head-to-head with private sector organizations for the right to provide a variety of government services. In many instances, the in-house government departments are beating their private sector competitors . . . winning back the right to provide services they lost to privatization and contracting out in the 1980s.”

This change to broad public-private competition, however, creates some significant challenges to carrying out the competitive process effectively, fairly, and credibly.

Feasibility analysis

While competition is critical to successful contracting, another key to success is a systematic process to identify appropriate services for competition. Several states have developed processes that help identify the most critical

barriers to competitive contracting and take steps to mitigate or remove the barriers. These approaches are intended to help avoid many negative consequences which can result from inappropriate contracting. Columbia's Dr. Lawrence Martin says public managers need, "... access to tools for evaluating the technical feasibility and cost implications of contracting out. Without some standardized tool for evaluating the technical feasibility of contracting out, public managers may overlook important factors bearing on the decision."

We reviewed three methods to assess the feasibility of competitive bidding used by Colorado, Texas, and Massachusetts. We identified nine factors that should be analyzed before proceeding with detailed cost analysis and formal competition. We summarize the factors identified by the Colorado State Auditor below and present their complete forms in Appendix B.

Market environment - Are there multiple providers willing and able to compete for delivery of the service?

Political resistance - Would the public, elected officials, unions, and other interest groups support a change in service delivery?

Potential for savings - Assuming quality and service level remain unchanged, are costs expected to decrease?

Quality performance - Can a change in providers maintain the effectiveness, timeliness, or thoroughness of the service?

Impact on employees - Is it possible to avoid job losses or layoffs?

Legal barriers - Do laws or regulations allow different providers?

Risk - Would a change in providers increase City risks of abuse and waste or adversely impact health, safety or welfare? Would a change in providers change liability exposure?

Efficiency - Would a switch to another provider help improve the use of public resources?

Government control - Does the government agency have the ability/skill to manage a contractor? Is the quality and performance of this service easy to measure and control?

This approach helps managers focus on solutions to barriers. A thorough review and analysis of each of these factors can not only help assess the potential for successful contracting but also lead to identifying ways to solve or mitigate problems. For example, it may be possible to improve the market environment by changing the scope or size of the contract to attract more bidders or by offering a multi-year contract so contractors can recoup start-up costs. Conversely, if managers cannot clearly define the performance they want and measure whether they are getting it, they should not contract for the services.

Selection Process

When a service appears appropriate for competitive contracting after feasibility analysis has been conducted, the City must obtain bids or estimates from various competitors, including in-house providers. For small and limited-scope services an informal bid approach is adequate. However, for most public-private competitions, our research

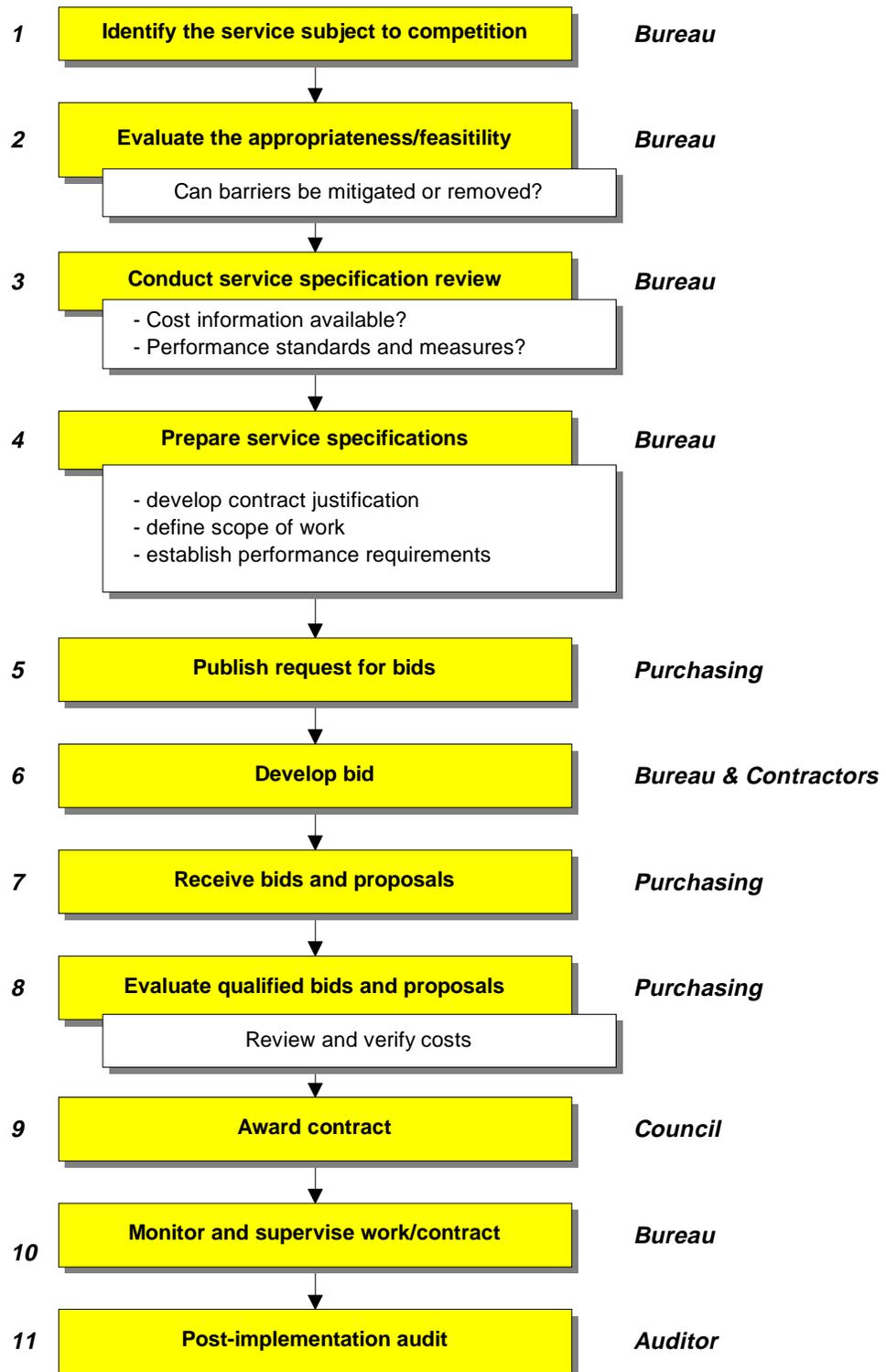
supports using a more formal bidding system. According to a recent report by the Seattle City Auditor, formal bidding:

- provides better cost information
- produces better qualitative information on service performance
- sends a strong message to prospective bidders that the competition is open and the best candidate will be selected
- motivates in-house providers to find new, more efficient ways to provide services
- commits the in-house provider to produce the services at a set cost

Based on discussions with the City's Purchasing Agent, Water Bureau representatives, and other bureaus, we conclude that the bid process should be managed and administered by an organization independent from the service provider and sufficiently qualified to compare bid specifications and assess bid amounts. Specifically, we recommend that the Office of Purchases and Stores, directed by the City Purchasing Agent, review and verify in-house cost estimates, bids, and proposals, and select the most responsive bid at the most reasonable cost.

To help the City do competitive contracting, we developed a process flowchart (Figure 1) showing the specific steps the City may wish to take. As shown, bureaus should begin by identifying competitive contracting opportunities, identifying and mitigating barriers, and ensuring that the bureau has the information and resources necessary to adequately develop and monitor contracted work.

Figure 1 Competitive Contracting Process



SOURCE: Developed by Office of City Auditor

Cost comparisons Accurate comparison of public and private costs is not simple; yet sound cost comparison is critical to ensure the process is fair and the goals of competition are achieved. Key to achieving good cost comparison is a clear policy on how in-house costs will be determined and compared to private bids. Our research shows that, while it is relatively easy to determine the direct labor and materials cost of services, it is more difficult to determine three other cost areas: overhead costs, contract administration costs, and start-up and transition costs.

Overhead costs

Overhead costs can be allocated fully or incrementally. Overhead or indirect costs do not usually directly link to a specific service but are assumed to contribute to all City services in some way. Overhead costs in Portland might include City Council, personnel, budgeting, accounting, and auditing. The fully allocated approach assigns all overhead costs to the various services. The incremental approach considers only the costs that will change with the selection of a service provider. Fully allocated overhead costs result in higher calculations for in-house costs. The incremental method is most common in government contracting and in private sector “make or buy” decisions.

Contract administration

Contract administration costs are costs incurred by a public entity to develop, monitor, and supervise the contract of a private vendor. Experts say that contract administration costs are often ignored or overlooked in assessing the costs of contracting. Failure to include contract administration costs results in underestimating the true costs of a private bid.

Transition Costs

Transition costs are usually one-time costs that are incurred when a public service is converted to a private provider, or vice versa. These costs can include retraining, unemployment insurance, and payment of vacation or sick leave benefits. Governments can also incur transition costs if they assume the cost of unused facilities or equipment. Transition costs generally have little to do with how the direct costs of public delivery compare to private delivery but can contribute enough one-time costs to make a significant difference over a certain period of time.

Water Bureau cost comparison methodology

In 1993 the Bureau of Water Works formed a quality improvement group called the Water Service Partnership Group for Improvement (WSPGI). This group, a cooperative effort of labor and management, is exploring a number of ways to improve water services. One major effort was to develop a comprehensive methodology for comparing public and private costs. The group developed and field-tested a cost comparison methodology in 1994 and found this methodology useful for determining the least-cost service provider for Water Bureau construction projects. Appendix C includes a complete copy of the Water Bureau's report on their cost comparison.

To find out if the cost methodology was based on sound cost principles which considered both in-house and private costs fairly and fully, we contracted with Dr. Lawrence Martin of Columbia University to review the methodology. We asked Dr. Martin to determine the soundness of the

Water Bureau cost methodology and its utility as a general tool for Portland managers. Specifically, Dr. Martin reviewed the methodology, compared it to other methods, assessed its strengths and weaknesses, and considered whether it would be applicable citywide.

His report to us (Appendix D) found the methodology to be sound. He determined the methodology is appropriate and suitable as an element of a citywide policy governing public-private competition. He found it fair and balanced, and a good starting point for other City bureaus conducting cost comparisons. Dr. Martin stated that the methodology generally creates a level playing field for both contractors and City departments and that the incremental cost methodology was reasonable and justified on both theoretical and practical grounds.

Figure 2 is a summary of the Water Bureau's cost comparison methodology. This summary is a generic cost comparison approach that incorporates the most important principles identified in the WSPGI methodology. It could be used by any bureau to guide cost comparisons of in-house and private costs. The method uses incremental overhead cost allocation.

After calculating both in-house and contract performance costs, the two figures should be compared. Where the in-house costs are significantly higher, contracting may present an opportunity for savings.

Figure 2

Cost Comparison Methodology

City Costs

Direct Labor & Supervision <i>(all wages/benefits)</i>	\$ _____
Operating Costs <i>(e.g. supplies, professional services, training, travel)</i>	\$ _____
Internal Services <i>(e.g. rent, utilities, insurance)</i>	\$ _____
Capital/Equipment <i>(depreciation or replacement)</i>	\$ _____
Allocated Overhead <i>(management, central administration)</i>	\$ _____
Total City Costs	\$ _____

Contracting Costs

Contractor Bid Amount <i>(job bid and contingency)</i>	\$ _____
Transition Costs <i>(re-training City employees, benefits pay-off, unused assets)</i>	\$ _____
Administration Costs <i>(bid and contract preparation, contract monitoring and management)</i>	\$ _____
Revenue Offsets <i>(e.g. deduct business income tax paid by contractor)</i>	\$ _____
Total Contracting Costs	\$ _____

Contract management, monitoring, and auditing

To provide sufficient assurance that the benefits of competition actually materialize, the City must manage, monitor, and audit contract performance. Regardless of who wins the contract competition, the successful party needs to be held to specified timelines, performance levels and cost agreements. Our readings clearly show that when governments skimp on contract oversight, they risk poor quality, higher costs, or even service failure.

Several steps may help governments conduct more successful contract management and oversight.

- ***Hire and train contract managers:*** Bureaus need to hire and train employees who are able to develop clear, enforceable contract specifications, negotiate with potential service providers, obtain and evaluate performance information, and review results.
- ***Develop clear policies to guide approval of cost increases:*** Each contract should specify how and under what conditions contract costs may be increased. Standard contingencies can apply, but increases above specified levels must be justified and approved.
- ***Establish and enforce penalties for nonperformance:*** Successful contract performance is less likely if contractors believe there are few consequences for poor performance. Performance incentives (such as bonuses for early completion or superior performance), cost penalties for overruns or delays, and parameters for contract extension or termination of contracts should be considered.

- **Conduct periodic independent audits of contract performance:** Independent third-party audits of contract performance can be performed periodically to ensure that contracts are achieving their intended benefits. These audits could be performed under direction of the City Auditor.

Recommendations

Competitive contracting of public services appears to offer real benefits to those governments that implement it well. However, enthusiasm for the curative powers of competition should be tempered with an understanding of the risks to face and the problems to solve. While some cities achieve significant savings and service improvements, others found contracting out promised more than it delivered.

To help the City of Portland benefit from competition, we make the following recommendations to City Council, Bureau managers, and employees.

- 1. All City of Portland bureaus should subject public services to market competition.***

Each bureau should develop a competitive contracting plan, to be implemented over several years, that would systematically test services for market competition potential. Bureaus could also consider competing for the right to provide services that are currently provided under contracts with private companies. Bureaus should use a feasibility analysis similar to the one in Appendix B of this report to identify both advantages and barriers. Likely services and projects should undergo a formal bidding process. For less likely

services, managers should attempt to mitigate barriers to contracting or else drop the service from consideration.

2. *The Mayor and City Council should support bureaus in removing barriers to competitive contracting.*

Council may need to waive various rules or policies that limit the ability of City services to compete successfully with private contractors. For example, some current personnel rules may limit the ability of City bureaus to add or reduce staff when they win or lose bidding. Also, Council may wish to adopt new initiatives such as redeployment or early retirement options, to offset the impact on public employees.

3. *Bureaus should use the existing Productivity Improvement Committees to steer the process of competitive contracting.*

Labor and management cooperation is a prerequisite for success in introducing private sector competition. These committees ensure that all relevant information is considered, and build credibility for the City with the public.

4. *The Purchasing Agent should take lead responsibility for developing an impartial and trustworthy process for public-private competition.*

With assistance from bureaus and approval from Council, the Purchasing Agent should develop

procedures to guide competitive contracting. The Purchasing Agent should independently review and verify public cost bids and provide assurances that all competitors will be treated fairly. The process should include methods for both the formal and informal bidding of services.

5. ***The Purchasing Agent should develop, test, and issue a standardized cost comparison methodology to be used in analyzing public and private bids.***

The Purchasing Agent should obtain technical advice and assistance from the Office of the City Auditor, the Office of Finance and Administration, the Water Bureau, and other interested bureaus in preparing a cost comparison methodology. The methodology used should be an incremental overhead cost approach and include both administration and transition costs in the analysis.

6. ***Bureau managers should establish methods to ensure that in-house contracts are accountable for performance and cost bids.***

To maintain objectivity, contract evaluators should be organizationally independent from project managers. Change orders should be reviewed and approved by top management, and periodic independent audits/evaluations should be made to check performance.

To help City Council judge the success of competitive contracting in the City, the Audit Services Division will prepare a status report for the FY 1997-99 biennial budget session. The report will assess the appropriateness of competition decisions, and identify cost savings or other benefits gained from competitive contracting.

Appendix A

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Appendix B

Analytical Model for Assessing Competitive Contracting Feasibility

Adapted from *Privatization Assessment Workbook*,
Colorado State Auditor's Office, 1989

Contents

Part I Preliminary Qualitative Analysis

Market Strength	B-1
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Impact on Employees	B-5
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Efficiency	B-8
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Part II Service Specification Review

Service Specification Review	B-10
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Market Strength

Market strength is the commercial characteristics of the service. Is the private sector able and interested in delivering the service?

Factors to Consider:

- What service providers are potential bidders for the service?
- Can the private sector provide the service?
- Are there enough potential providers to ensure competition in response to a request for bids?
- Is the financial commitment too large, frustrating providers from wanting to deliver the service? Is it feasible for providers to recoup their initial investment in a reasonable time frame?
- Would a monopoly result from the selection of service provider? Some monopolies eliminate competition and may increase costs because they can unfairly raise the price of services. However, some monopolies are helpful because they are more efficient. If a monopoly is not desirable for the service, and the potential for a monopoly exists, this would support the government side of the scale.
- Is the service considered complex or simple? Less complex functions are easier to consider.

	Low Market Strength				High Market Strength		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Possible actions to change low market strength rating

- Sharing responsibility for the service among service providers or between the government agency and the private firm.
- Expand the number of private providers to decrease the chance of a monopoly.
- Write contracts to ensure multiple vendors and competition exists.
- Determine if long-term contracts can be written to facilitate recoveries of investments for contractors.
- Break down the size of the service into smaller projects. In high risk services, pilot contracts, can be desirable before full-scale privatization is attempted.

Political Resistance

Political resistance is the amount of opposition to change in service providers. Resistance can come from the public, users of the service, interest groups, or public officials.

Factors to Consider:

- Would the public, users of the service, interest groups, or public officials be highly resistant to changes in the providers of the service?
- Is the service a new or existing function? New services may be easier to award through a competitive contracting process.
- Is the service critical to public safety or health?

	High Resistance				Low Resistance		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Possible actions to change high resistance

- Reschedule implementation until a better time of year or date which avoids the resistance.
- Focus on new or emerging services.
- Focus on services which are not provided well.
- Involve various groups in the decision making process.

Potential for Savings

The potential for savings refers to the probability that costs will be reduced through competition, assuming no change in the level or quality of service.

Factors to Consider:

- Will costs increase or decrease if the service provider is determined through competition, assuming that service quality and quantity are unchanged?
- Will savings be passed on to service clients? If the cost to both the government and the client are reduced, this supports competitive selection of a service provider.

	Cost More				Cost Less		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Possible actions to reduce contractor costs

- Provide contractual incentives for controlling costs.
- Review bid or contract specifications to determine if changes would result in lower costs to provide the service.

Quality of Service

Quality of service is the expected impact competition would have on the effectiveness, timeliness, and thoroughness of the service provided.

Factors to Consider:

- Will the quality of the service likely increase or decrease as a result of competitive contracting?
- Do outside contracts threaten user confidentiality or impartiality toward users?
- Would an outside contract adversely affect the general public?
- Will target populations be neglected if a service is privately provided?
- Would accountability likely increase or decrease if work is competitively awarded?
- Can the objectives of the service be well defined and easily measured? If yes, this supports competitive award of the service.

	Low Quality				High Quality		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Actions to encourage high quality

- The agency can place more emphasis on oversight for quality control.
- The agency might be able to develop good measures of the quality of service.
- Contracts and agreements should be written to ensure quality levels and allow for immediate termination of contracts for poor performance.
- Quality ratings can be conducted by service recipients or clients.
- Build incentives to providers for quality of service.
- Pilot projects can determine how well a contractor is able to provide services.
- Private firms can be bonded to ensure adequate performance.

Impact on Employees

Impact on employees is the effect that contracting will have on government employees. This factor also considers the impact on the community.

Factors to Consider:

- Will the impact on government employees be negative or positive?
- How many employees will be affected?
- Will civil service policies such as affirmative action be weakened if the service provider is changed?
- What will be the effect of the economy and the community? Is the agency a primary employer in the community?

	Low Impact				High Impact		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Possible actions to reduce impact on employees

- Provide job transfers into other employment opportunities.
- Civil service policies can be written into contract terms.
- Displaced employees can be given employment preference with a private service provider.
- Focus on new services that are not currently provided by government agencies.
- Extend retirement and health benefits to displaced employees.
- Provide early retirement options.
- Provide job placement and training to employees.

Legal Barriers

Legal barriers refer to the effect any laws have on the contracting decision.

Factors to Consider:

- Are there any laws that mandate who should actually provide the service?
- Do laws allow for the change of service providers?
- Are there interrelationships with other programs, prescribed by law, that inhibit or prohibit a change in service providers?
- Are there any federal grant restrictions that will interfere with the decision to award the service through competitive contracting?
- Do current labor contracts prohibit service changes?
- Will contracting be compatible with legislative intent?

	High Barriers				Low Barriers		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Possible actions to reduce legal barriers

- Are the legal limits applicable to a separable portion of the program?
- Could laws be changed to allow the change in service providers?
- Is the legislative climate conducive to supporting change?
- Are sponsors available and willing to support the legislation?
- Can labor negotiations change existing contract provisions?

Risk

Risk is the degree to which changes in service provider will expose City to hazards, liabilities, and service failures.

Factors to Consider:

- How great is the chance that a contractor may fail to provide the service?
- If the service is interrupted, will the consequences be major or minor? Will the consequences occur quickly or will they be delayed?
- Is there a risk that service will be reduced or stopped if financial losses occur?
- Does the risk of corruption or abuse increase with use of a private provider?
- What are the consequences of service interruption if a contractor fails to provide the service? Can service be restored quickly?
- Could the government benefit from sharing some of the risks with a private provider?
- Who will be responsible for cost overruns?

	High Risk				Low Risk		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Possible actions to reduce risk

- Write contract provisions to reduce the risk of service interruption, such as strict reporting requirements.
- Retain ownership of all capital equipment.
- Develop an emergency plan to deal with service interruption.
- Rent critical equipment and facilities to a private provider.
- Maintain a list of alternative providers.
- Require contractors to be bonded.
- Phase in private contractors to ensure capability and reliability.
- Include cost adjustments in the contract to adjust for inflation and service demand changes.

Efficiency

Will a change help improve efficient use of existing government assets?

Factors to Consider:

- Does the private sector have expertise that is too costly to develop or retain in a government agency? Does the government have a staffing expertise or abilities not available in the private sector?
- Are there any time constraints which favor a service provider? A budget process may be too slow to respond to crises. Private providers may be able to respond well to service demand spikes.
- Does the private sector possess needed equipment or facilities not currently owned by government? Or Vice -Versa?
- Are there operating efficiencies that will be lost if services are switched to a private provider?
- Will a change in service provider extend or reduce project completion dates?

	Decreases Efficiency				Increases Efficiency		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Possible actions to increase efficiency

- Government agencies may be able to sell or rent out resources it holds.
- Lease purchase agreements might allow a public agency to take over ownership of private sector resources.
- Resources might be shared among agencies for greater efficiency.
- Better planning by the agency may help avoid resource inefficiencies.

Management Control

Management control is the government's ability to efficiently oversee the provision of the service and ensure performance.

Factors to Consider:

- Is the quantity and quality of the service easy to define, measure and evaluate?
- Can “good performance” be measured quantitatively and objectively?
- Does the government agency have access to contractor records to monitor process and results?
- Does the government agency have employees with contract development and management skills?
- Can penalties or incentives be established for good/poor performance?

	Low Control				High Control		
Rating:	-3	-2	-1	0	+1	+2	+3
	(anti-competitive contracting)				(pro-competitive contracting)		

Rationale for Rating: _____

Mitigation Suggestions:

Negative indications for private contracting may be mitigated by:

- Write more detail into the contract to ensure control.
- Require that the contractor maintain records that allow easy oversight.
- Teach contract writing, management and evaluation skills to existing employees.

Service Specification Review

Service: _____

Bureau: _____

Date: _____

1. Purpose

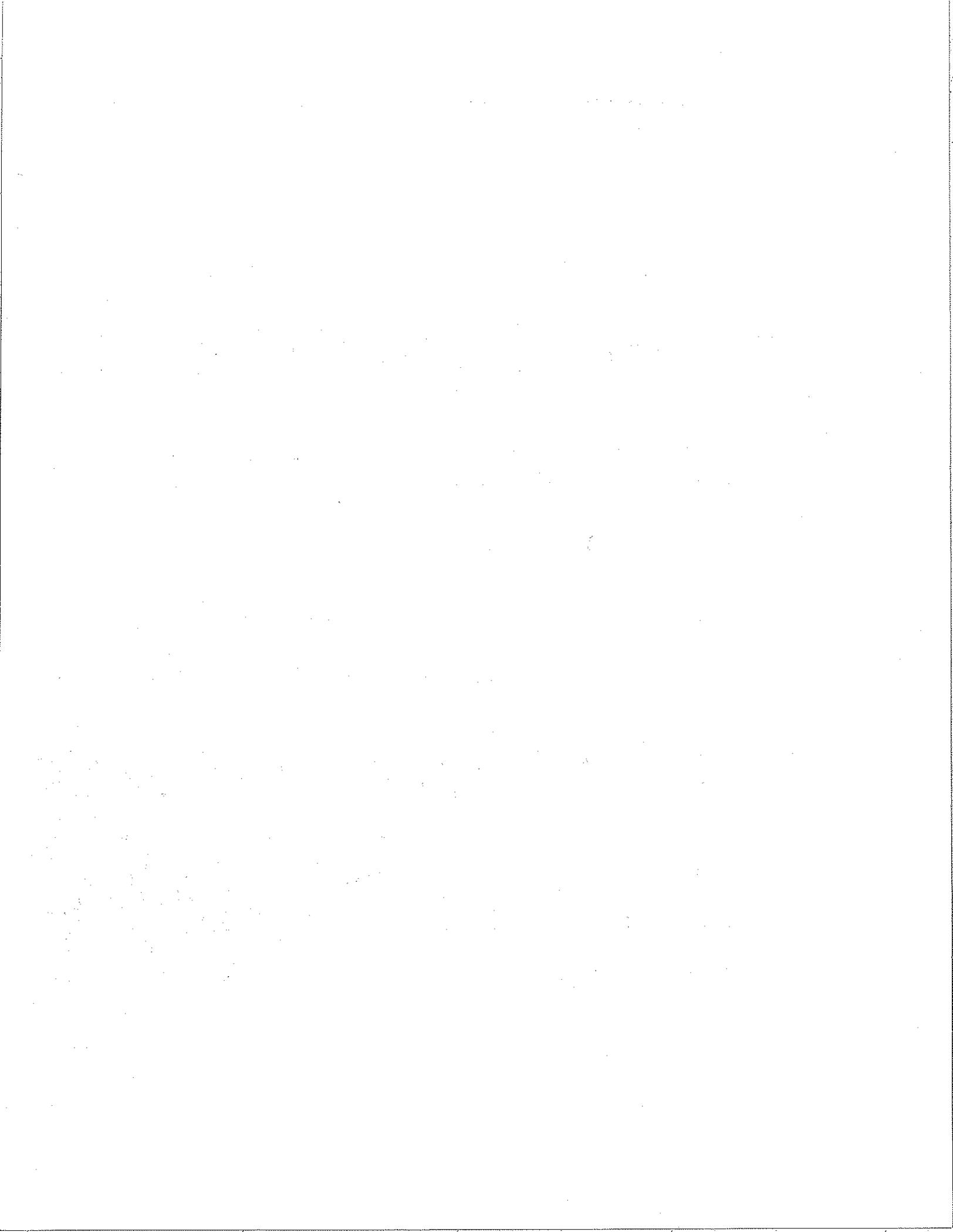
To develop and define specifications to provide the best (*service / program*) as efficiently and as effectively as possible.

2. Service Definition and Specification

This section should define the required services, the performance standards and acceptable quality levels each service must meet, the workloads associated with the services, and the facilities and other services the government will provide to support the conduct of the defined work. The service definition and specification will be used to identify the most efficient and effective method for performing the service. The service definition and specification should clearly state what is to be done to satisfy governmental and/or contract requirements. The service definition and specification becomes a major factor in ensuring that the service provider understands the scope of the work, that the government receives the service it needs, and the government is able to hold the contractor accountable for the work.

- A. Scope of work
- B. Key required personnel
- C. Quality control responsibility of the provider
- D. Quality assurance responsibility of the government
- E. Security responsibilities of both the government and the provider
- F. Contingency requirements, i.e. extended service requirements resulting from known contingencies
- G. Government furnished property
- H. Government furnished services
- I. Specific tasks
- J. Applicable statutes, regulations, technical orders, specifications, and manuals
- K. Performance requirements
- L. Estimated work load
- M. Required reports
- N. Quality assurance plan

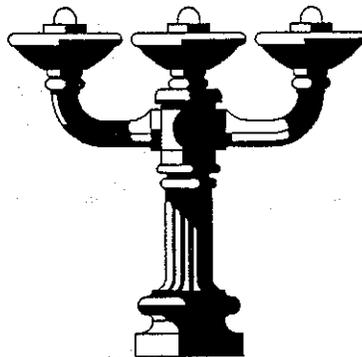
Appendix C
Report on Cost Comparison
Methodology (Water Services
Partnership Group for Improvement)
December, 1994



REPORT ON

COST COMPARISON

METHODOLOGY

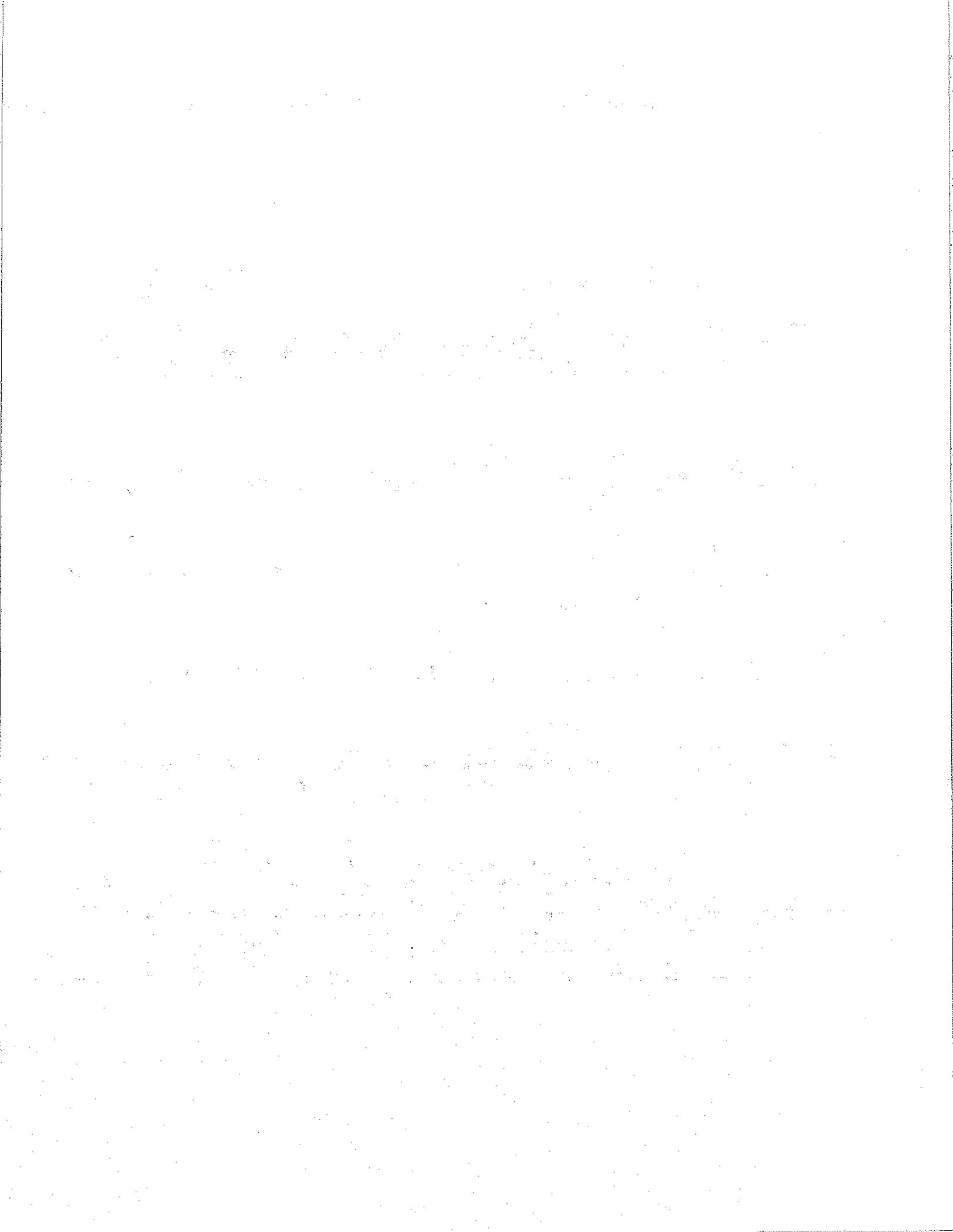


PORTLAND WATER BUREAU

DECEMBER 1994

SPONSORED BY: Water Services Partnership Group for Improvement

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CITY OF

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MEMORANDUM

DATE: January, 1995
TO: Interested Parties
FROM: Water Services Partnership Group for Improvement
SUBJECT: Transmittal of the Water Bureau's Cost Comparison Methodology.

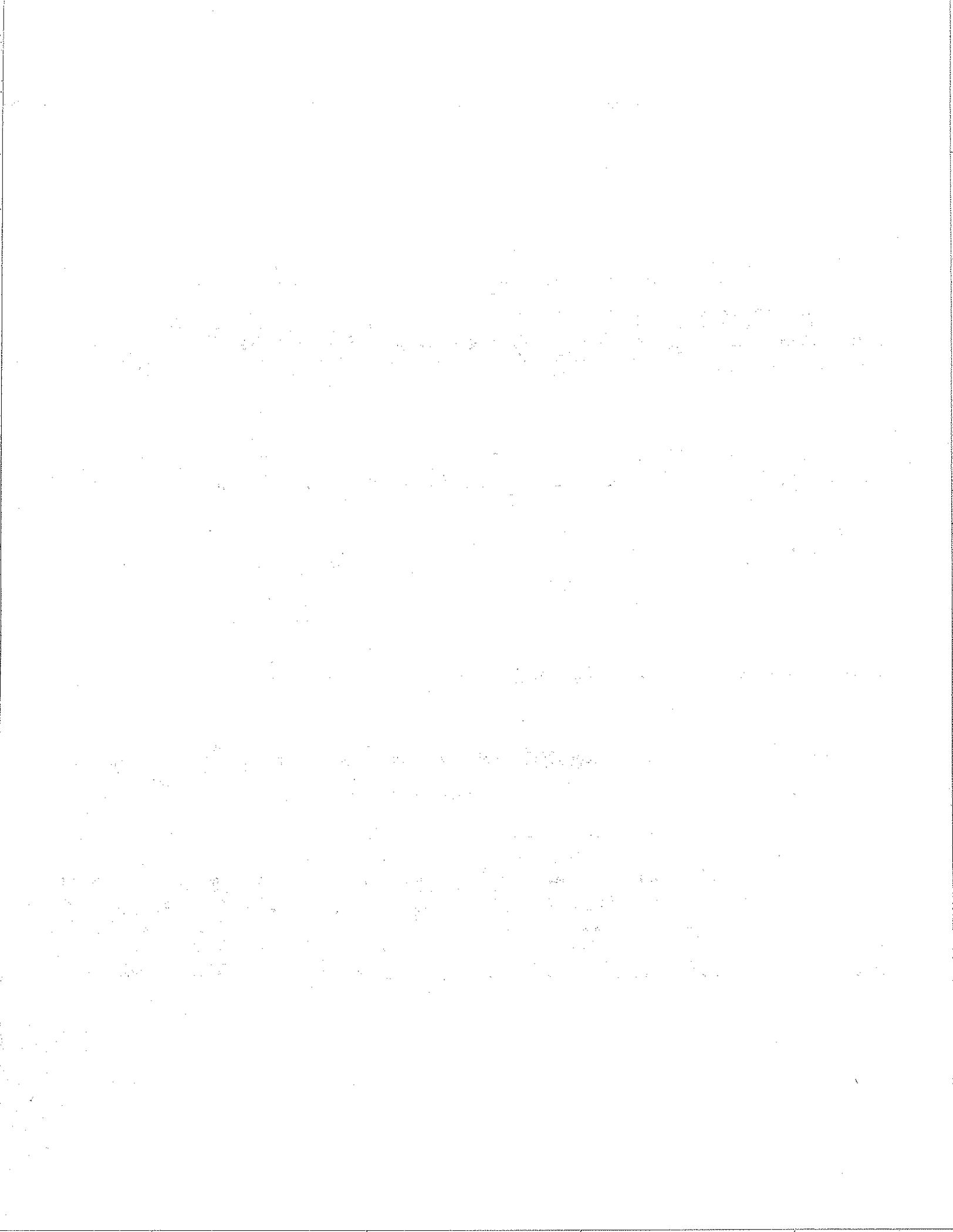
Attached are two discussion documents recently prepared by the Water Bureau that we hope will lead to a "level playing field" comparison of Water Bureau services with those offered by the private sector. The first document is a brief paper that sets the context for and introduces the second document - the Bureau's Cost Comparison Methodology.

Both of these documents were jointly written in a truly collaborative effort by a committee of the Bureau's management and union leaders. In addition, the documents have been reviewed and, through this memorandum, are being forwarded by the Bureau's Water Services Partnership Group for Improvement (WSPGI) to all interested persons. The WSPGI, is comprised of the Bureau's Management Team, Labor leaders from AFSCME, Electrical Workers (IBEW), Operating Engineers Local 701 and COPPEEA (City of Portland Planners & Engineers Employee Association), and representatives from Commissioner Lindberg's and Mayor Katz's Offices. Together, the WSPGI sponsors efforts to make improvements in the Bureau's operations that lead to providing more effective and efficient delivery of water services.

Please take time to read these two documents. If you are an interested party, then we consider you a stakeholder in the outcome of our efforts. We welcome your comments. You can give us your written comments if you wish by addressing them to the WSPGI, c/o the Water Bureau address above. If you'd like to talk with someone, call one of the WSPGI representatives listed on the roster on the back of this memorandum.

Thanks for taking the time to read these documents. Your comments and concerns can only lead to a better product.

costtran.mem



A CONTEXT PAPER

CONTINUOUS IMPROVEMENT AND CONTRACTING PORTLAND WATER BUREAU

December 8, 1994

The Water Bureau is dedicated to the principle of *Continuous Improvement*. The leadership role (i.e. "sponsorship," which is ensuring that the conditions for improvement are in place in the organization) lies with the Bureau's Water Services Partnership Group for Improvement (WSPGI).

WSPGI is composed of key members of three groups – Bureau Management, Labor and Elected Officials. Specifically, the members are the Bureau's Management Team, an official of each Labor Union or Association that represents employees of the Water Bureau, and a liaison from Commissioner Lindberg's office and the Mayor's office. It sponsors and directs process improvement efforts undertaken by Bureau personnel.

Fundamentally, the WSPGI feels that continuous improvement, which results in the best service to customers, is the collective responsibility of management, labor and elected officials. Furthermore, it feels that competition between public sector and private sector providers is healthy, and that by collaboration of management and labor, the Water Bureau will be as competitive as it can be. If management and labor cannot collaborate, it will be difficult, if not impossible, to be competitive.

The attached document is part of one such improvement effort. It is a cost methodology, which will be used by the Water Bureau to compare the cost of service provided by the Water Bureau with that of private service providers. It is a tool we need to gather the analytical information used with other criteria, to decide whether a given service should be provided in-house or contracted for.

The collective assumption of the WSPGI is NOT that the Bureau should necessarily contract its work out to the private sector or bring into the Bureau work now contracted out. The assumption is that the Bureau should do what makes sense. To make that determination, there needs to be an equitable, accountable and scientific methodology in place to provide the basis for the decision. That is what this cost methodology is.

In the larger context of organization improvement, it is important to understand that several things need to be in place. We have identified the following processes or products that need to be developed and accompany the proposed "Cost Methodology" before the Bureau can proceed with any large scale contracting in or out programs.

Selecting Functions for Bidding

In preparing its cost methodology, the Bureau examined and based its proposal for comparing private and Bureau cost on its water mains construction function, a function now provided by the private sector when project costs are expected to exceed \$50,000. It also plans on applying the methodology through bidding to a portion of its grounds maintenance function. This function is now performed by Bureau employees.

These functions represent only a small fraction of all functions needed to operate a water utility. Some Bureau functions may not be appropriate for contracting out and some may. Some functions now provided by the private sector may be best provided by the Bureau and vice versa. For example, is it appropriate to open competitive bidding for reading of water meters, or should the Bureau pursue the acquisition of new automatic meter reading technology? Is operation of the Bureau's water intake and disinfection facilities in the Bull Run a function that could be competitively bid by the Bureau, along with the private sector? Should the Bureau compete with the private sector to transport chlorine. Is fountain maintenance most effectively done by the private sector? Are office and engineering functions cost competitive with the private sector? And, should the Bureau bid its services for work now provided by the private sector to other city Bureaus such as construction inspection for the Mid-County Sewer Program?

To decide which functions should be subjected to competitive bidding, the Bureau and its other City service providers need to develop a criteria based selection process. Potential selection criteria might involve consideration of regulatory liability, public health risk, reliability of the water system, potential for savings and the presence of unique skills and expertise in the private sector to perform functions that have traditionally been municipally operated.

The WSPGI is now considering membership and a charge for sponsoring a labor/management committee within the Bureau to develop a selection process and to recommend a prioritized list of Bureau functions where competitive bidding can be applied.

Develop a Contracting and Audit Strategy

In contracting Bureau functions in or out, the Bureau must develop a contracting strategy which maximizes effectiveness and minimizes costs while avoiding monopoly of the function. For example, should the Bureau bid its services on every water main construction project or should it only demonstrate its cost effectiveness on every tenth project or every other year? If it bids every project under the proposed methodology, it is likely that the Bureau will not successfully compete in all bidding situations. Although the private sector must recover its costs over the long run, it does not necessarily have to recover fully its costs on all projects. If the Bureau fails to secure the bid when a private contractor bids below cost (but with full recovery averaged over all of the contractor's projects), how does the Bureau maintain a viable construction crew to compete in the next bidding situation? Once the Bureau loses its work force capacity and skills, how can the Bureau assure it can ever be competitive or even make timely response to large scale emergencies?

In addition, the Bureau needs to be able to assure itself and the public that the actual cost of performing the work is what it was intended to be. We believe that the City's accounting systems can be used to track cost accurately. But, should the City Auditor review the accounting system and provide periodic audits of bid functions and report to council and the public?

These issues require the development of a contracting strategy and auditing process that assures the public that any large scale contracting in or out process will result in the most effective and least cost service when measured over the long term. To address this need, the WSPGI must develop and propose a contracting strategy guiding a wide variety of bidding situations throughout the Bureau. In addition, the City Auditor must be involved to lend integrity and promote confidence in the competitive bidding process.

Develop a Employee Resource Management Plan

Perhaps the most important and fundamental action by the Bureau is the adoption of a policy of "no layoffs" as a result of improved efficiencies. This is critical and, in fact, can be done. The fact is that the people who do the work (whatever it is) know the most about how to improve it. However, if their improving it costs them their job, it is difficult to get the motivation in place to make the improvements. So how do we deal with that?

We deal with it by the development of an Employee Resource Management Plan that clearly identifies the skills needed in the Bureau in the next few years; compares the needs to expected retirements, resignations, etc.; assesses the potential for displacing workers as a result of process improvements; ensures continued improvement in reaching affirmative action goals; and identifies the retraining requirements to match the displaced workers to the needed skills of the organization (the "organization" can be more than just the Bureau, but the City as a whole).

By addressing the displacement issues of continuous improvement in the context of a detailed Employee Resource Management plan, we hope to be able to provide the security employees need to be motivated to improve, and also ensure that we have a diversity of employees in the Bureau, with the skills we need.

Further, it is important to note that displacements will occur not only from improved ways of providing service (whether work is contracted out or we simply do it better with fewer people ourselves), but also through changes in technology. For example, the Water Bureau built a new control center and automated much of the water system's operation. One outcome of the new facility's more efficient operation was that four field operators were retrained and transferred. These four employees filled vacant positions necessary in the Bureau, with no new hires. This example reveals the need for an Employee Resource Management Plan designed in a larger context than just contracting in and out. The plan needs to complement all improvement efforts by the Bureau.

Conclusion

In conclusion, the attached cost comparison methodology is an important tool. The Bureau intends to move forward with it to engage in competitive bidding with the private sector in water mains construction and grounds maintenance functions. However, any larger scale application in the Bureau must be preceded by the development of an Employee Resource Management Plan, a contracting strategy and a careful process to select appropriate functions for bidding. To take this action, we count on the support of all our stakeholders; the public, employees, elected officials, labor and management leadership, and other City bureaus.

REPORT ON COST COMPARISON METHODOLOGY

December, 1994

This report was prepared
by a joint labor/management group:

The Water Bureau Cost Committee

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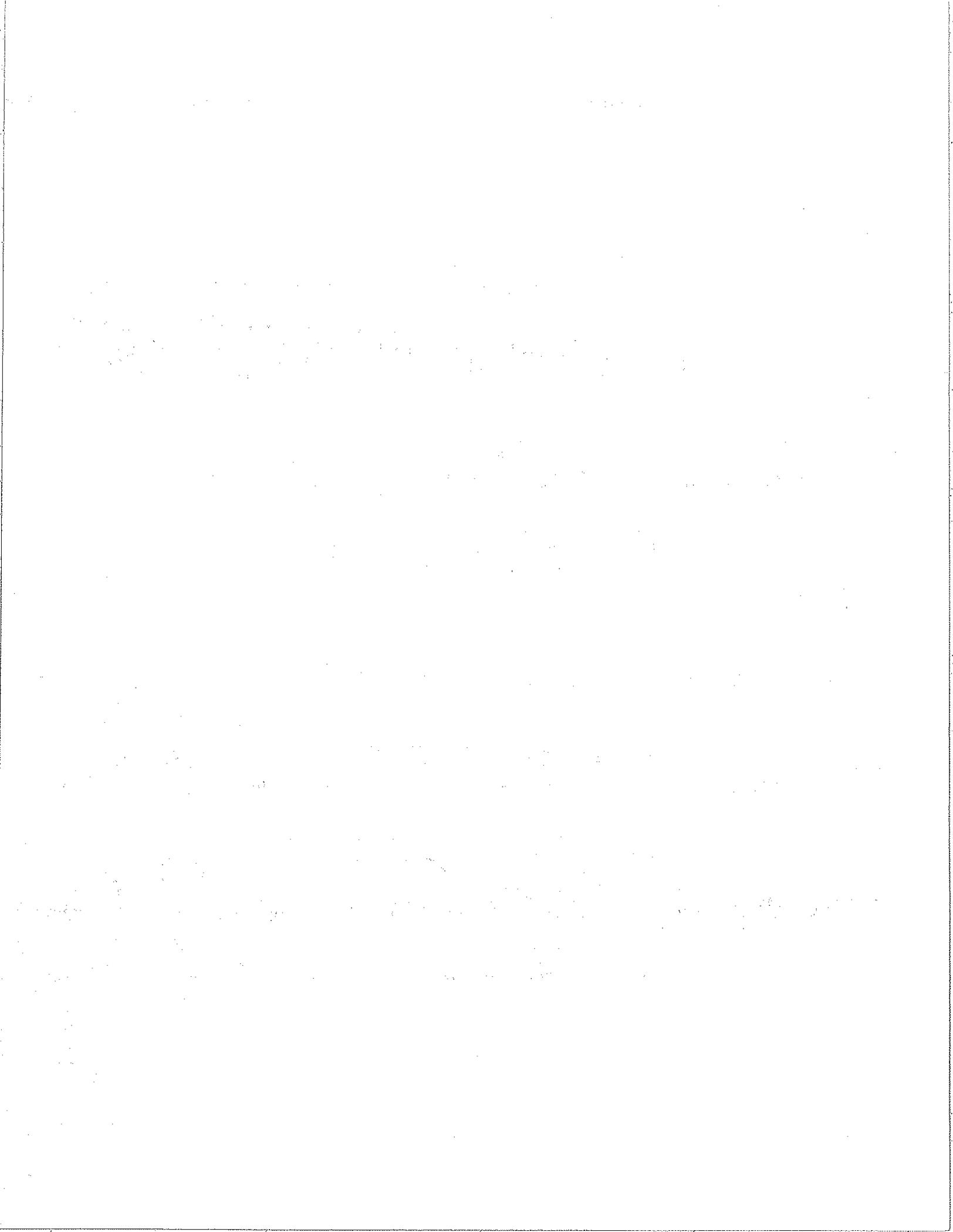


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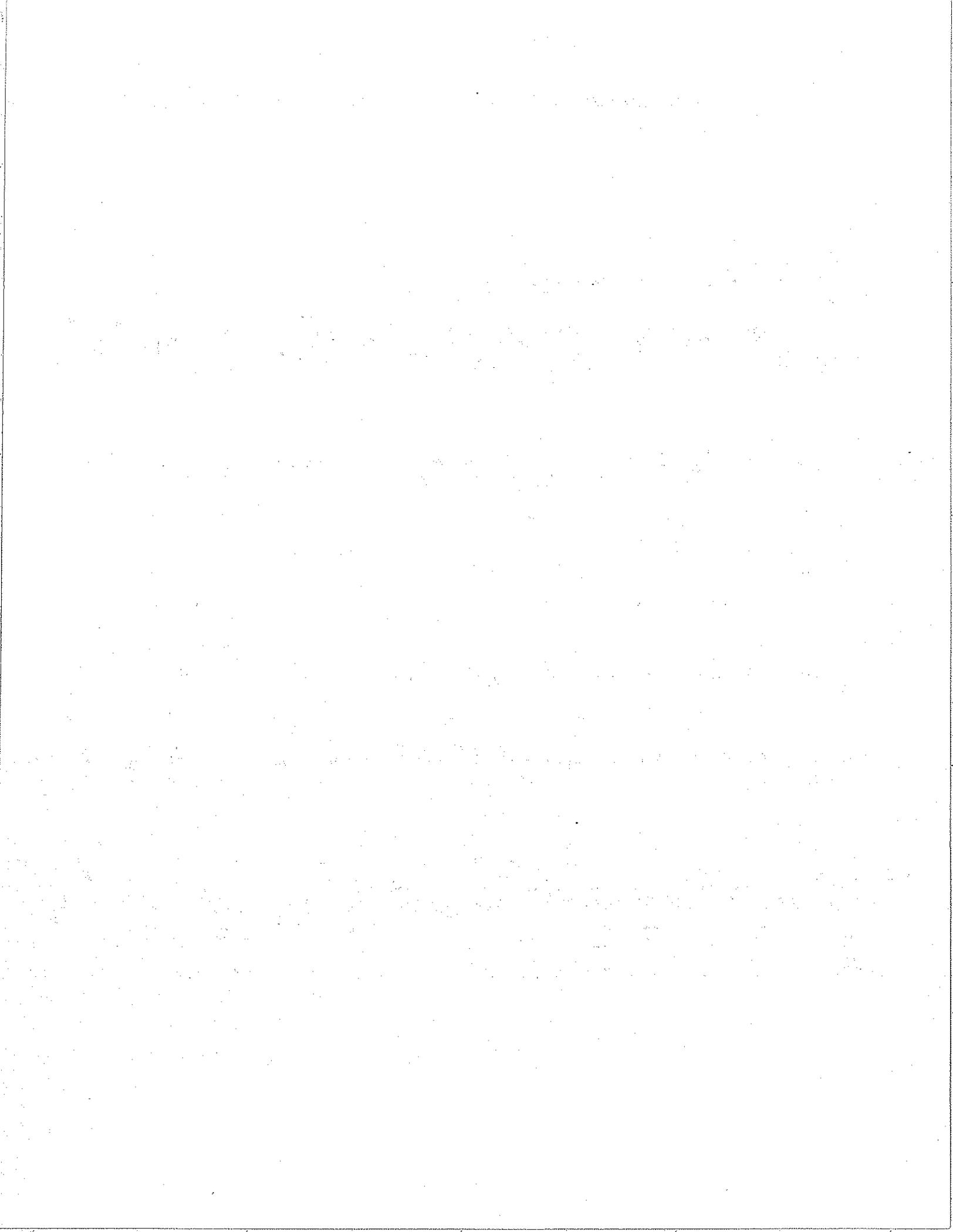
Section 2: Matrix of Criteria For A Good Cost Methodology

Section 9:

- **Application of Cost Methodologies to Bids**
- **Bid Comparison Chart for SW Westwood Package Mock Bid**

APPENDIX 1: SUMMARY OF ISSUES

APPENDIX 2: BIBLIOGRAPHY



SECTION 1: BACKGROUND

INTRODUCTION

In January of 1993, Mayor Katz invited AFSCME, Local 189 to review the various bureau budgets and to make comments for her review in preparation for the City's overall 1993-94 budget. Many of the suggestions could not be done at that time, but those comments along with input from the various bureaus generated a number of budget notes in the Mayor's budget document.

These notes included direction to review a number of the functions being performed by the Water Bureau. The notes also directed that a methodology be developed which would "level the playing field" when establishing a competitive system for determining whether it is less expensive for the City to deliver a given service or function, or to have an outside vendor (either private or other governmental agency) perform the same service or function.

In addition to the budget notes, the Water Bureau realized an increasing need to be more efficient in the way it delivers services. Declining sales as a result of water conservation, public sentiment to minimize rate increases, and the overall change in the political climate as it relates to government in general, have resulted in an immediate need to rethink how business is done in the Water Bureau.

In late spring of 1993, AFSCME filed a grievance with the Bureau regarding contracting out work traditionally done by bargaining unit employees. As a result of this grievance, AFSCME representatives and management agreed to meet and develop a system to determine what work could be contracted out, consistent with labor agreement provisions.

In November of 1993, a group of labor and management representatives from the Bureau met with Mayor Katz and Commissioner Lindberg to discuss ways labor and management could work together to improve the efficiency of the Bureau. As part of this effort, union representatives and management jointly presented the Bureau's financial plan to City Council in January, 1994, and indicated that this was only the beginning of the efforts for collaborative improvement.

What started as a collaborative effort for improvement has now grown into a full partnership with its first product -- a partnership recommendation on comparing private sector and Water Bureau costs. However, the Water Bureau partnership considers this recommendation only one of a number of steps that must be taken in realizing improvements. The recommended cost comparison methodology is only a tool. It is an important tool that can lead the organization to rethink and improve its processes in anticipation of having its costs compared. But it is not, in itself, the key to improving the Bureau -- building an effective partnership is. Continuing to strengthen the labor/management partnership is essential to successfully improving the Water Bureau.

COMMITTEE FORMATION

As a result of all of these influences, a joint AFSCME/Water Bureau Management committee began meeting in early fall of 1993. The original purpose of this committee was to explore ways labor and management could work together, and also to evaluate how contracting out issues could be handled.

Out of this initial group, two sub-committees were formed -- the Functions Committee and the Cost Committee. The Functions Committee was charged with the responsibility of deciding which areas to explore first. The Cost Committee was charged with the responsibility of developing a method of evaluating costs so the Bureau could make appropriate "make or buy" decisions on functions currently being performed by in-house personnel. This report discusses the current status of the work being done by the Cost Committee and outlines the issues resolved as well as those issues requiring further work.

Most important of those issues that have been resolved by the Cost Committee is to adopt a cost comparison methodology that employs an incremental cost approach for estimating overhead expenses and to fully cost all direct costs associated with a project or function. The largest unresolved issue is whether or not the Bureau can consistently meet its own estimates of cost (i.e., the Bureau's bid) in an actual series of construction projects. For a listing of all issues, see Sections 3 through 10 of this report.

FIRST STEPS

The first step the Cost Committee took was to explore the available literature on public sector "make or buy" decisions. The committee contacted other jurisdictions, as well as other bureaus within the City, to see how they handled some of the issues surrounding this topic. The attached bibliography lists articles, correspondence and books used as background for the work.

REORGANIZING THE COMMITTEE

Shortly after meetings began, the issue of lost revenue caused by water conservation and resulting budget cuts became a major concern for both the Bureau and the unions. The parties stepped back from work on the methodology issues and re-evaluated priorities. A strategy was outlined to deal with the bigger issues of funding, financial planning and budget shortfalls. The work of the Cost Committee was placed on hold, and an expanded committee was established, which included agents of other unions representing Bureau employees. Committee members went out to the work place and talked to employees, explained the financial situation facing the Bureau, and solicited ideas for improving how the Bureau does business.

As the committee went through this process, it began reconsidering how the Bureau should operate in the future. The committee realized that other things were occurring in the Bureau, such as Organizational Development/Organizational Analysis, which were impacted by the new process. The committee had to determine how the work of the labor/management committees inter-related to the Organizational Development/Organizational Analysis work.

As a result of this rethinking, the Functions Committee was disbanded. The Water Service Partnership Group for Improvement (WSPGI) was established as the main sponsor group for all the joint activities. The membership of the WSPGI was also broadened to include representation from both the Mayor's and Commissioner Lindberg's office. Also, Engineering staff (both COPPEEA and Management) was added to the Cost Committee.

COST METHODOLOGY

In December of 1993, the Cost Committee determined that it had to look at actual construction examples, if it was to truly ground its findings. As a group, the committee decided to take a project under construction, put a bid group together to prepare a "mock" bid for the project, and have a group of Engineering staff evaluate the bid. At the conclusion of the process, the Cost Committee, the bid group, and Engineering staff met to critique the results of the mock bid.

From the critique, the Cost Committee identified procedural issues requiring resolution. For example:

- Should the Bureau have material suppliers deliver construction materials directly to the job site and thereby avoid central storage and additional handling?
- Should an estimate for equipment breakdowns and extended delays be included in the City's bid and how should the costs be charged to the project if they occur?

The committee began evaluating these and many other issues. At the same time, the committee asked the bid group to prepare an estimate on a job currently out for bid. The bid group modified its preparation practices to address some of the issues raised in the first bid (the mock bid). This shadow bid was evaluated, along with the bids from the outside contractors, and again the results were critiqued.

From these two trial bids, the Cost Committee developed a complete list of issues, and began analyzing each issue and preparing recommendations. The discussion and recommendations on these issues are contained in Sections 3 through 10 of this report. In addition, the committee developed policy recommendations concerning direct and overhead cost issues. These recommendations address which direct costs and how overhead costs should be considered in any decision to perform work within the Bureau or have others perform the work.

One significant concern was how to factor overhead into the "make or buy" decision process. Overhead is addressed in Section 2 of this report. The committee looked at this issue in a number of ways. First, it looked at much of the literature and approaches recommended by professional organizations to address "make or buy" decisions. The committee also looked at the literature put out by the Association of General Contractors and other related organizations to attempt to understand their views on determining appropriate methodologies for cost comparison.

Second, a pro and con paper on alternative cost approaches, including full overhead, modified overhead, and incremental cost overhead methodologies was developed (included as Section 2 of this document). Finally, the committee produced a set of decision criteria for this issue and applied each of these criteria to the three options of full, modified, and incremental overhead cost. The result of the research and analysis was to conclude that the incremental overhead cost methodology should be utilized for "make or buy" decisions the Water Bureau is considering.

The three overhead options, as well as other costs identified in Sections 3 through 8, were applied to the second trial bid and to the successful contractor's bid. Section 9 of the report contains the results of applying these costs. When reviewing this work, it can be seen that the resulting low bid moves from the contractor to the Bureau, depending on which overhead methodology is applied. However, in each case it appears that Bureau workers are competitive with private contractors bidding on this project.

CONCLUSIONS & RECOMMENDATIONS

To re-design government more in line with the private sector, the City must utilize a private sector approach to evaluate "make or buy" decisions. All costs which are directly identifiable and tied to a specific project should be treated as direct project costs. All other indirect or overhead costs should be allocated to the project on an incremental cost basis. As a result, the committee recommends applying incremental overhead cost for comparing the City's bids with contractors' bids.

The committee agrees with the literature that utilizing fully allocated overhead produces the total cost of providing the service and must be used when one is trying to explain or to evaluate total cost. However, the City's overhead costs change very little regardless of whether a project or service is accomplished by City forces or a private contractor, given the relatively modest level of expenditures associated with projects and operating programs now under consideration for bidding competition. Should the City consider greatly expanding the level of services it wishes to bid in open competition, overhead costs may change significantly. However, the incremental cost methodology, if applied correctly, should still provide a valid comparison of costs.

Thus, it is not appropriate when comparing the cost of a service between the City and other providers to use fully allocated cost overhead. The only costs that are appropriate for comparison purposes are those costs which will actually change (either positively or negatively) when the

work is performed by different providers (this includes the City). Lastly, the incremental cost method is consistent with methodology used by the private sector in "make or buy" decisions .

NEXT STEPS

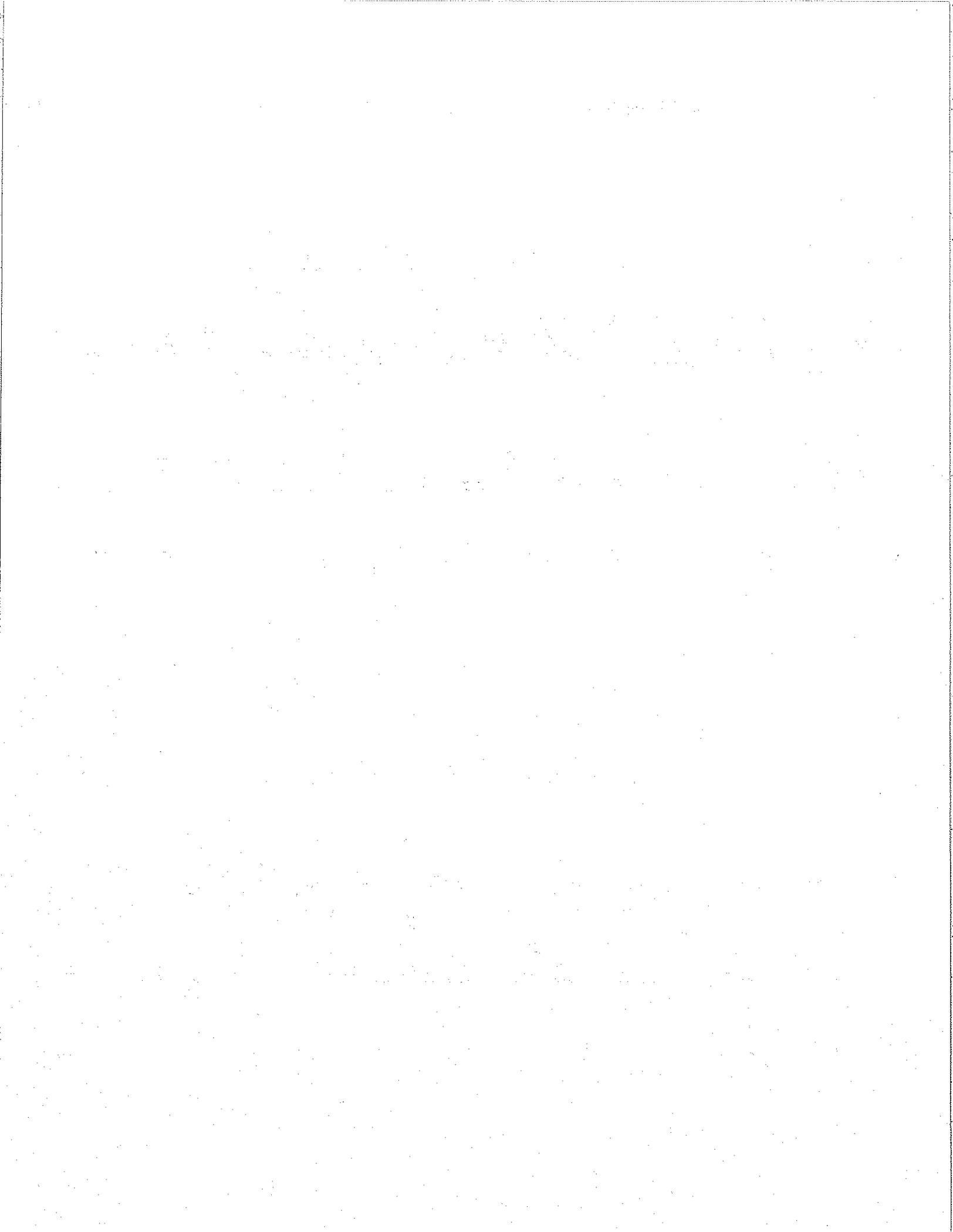
Once the cost methodology questions were addressed, the Cost Committee determined the need to validate whether the Bureau could meet the commitments contained in its bids. Also, the committee needed to resolve whether the Bureau could make the necessary changes in operations and current business practices to address staff and crew impacts, and other coordination activities in a competitive bid environment.

To accomplish these next steps, the Cost Committee has scheduled three water main construction projects for bid and construction, as a package, by in-house personnel. Individually, these projects are all under \$50,000. The jobs will be bid and costs collected as if the process were a competitive situation. Costs will be tracked and evaluated to insure the Bureau is capable of meeting its bid estimate.

The contracting study will also impact the Bureau's review of its ground maintenance operation. Staff is looking at the possibility of contracting out some of the Water Bureau's grounds maintenance. This work is currently performed with in-house personnel. The Bureau is considering taking a piece of the grounds maintenance work, using the same approach recommended in this study, and bidding it against outside contractors. This will allow the Bureau to determine how competitive the existing Water Bureau operation is compared with a private contractor's proposal.

In addition, there will need to be further discussions with Water Bureau employees, Office of Finance and Administration (OFA), Associated General Contractors (AGC), other bureaus, and City Council on these issues. The Cost Committee also will need to make final decisions on any remaining cost issues. When all of these elements are completed, a final report will be issued and City Council will be asked to adopt necessary policy on the final cost methodology to be used by the City to evaluate all "make or buy" decisions.

Once Council action is taken, it is anticipated the Water Bureau will be able to bid on construction work traditionally performed by private contractors and invite outside contractors to bid for work traditionally performed by the Bureau. From the preliminary work we have done in comparing bids, it appears the Bureau can be competitive if the playing field is leveled and employees are involved in work planning and bidding decisions.



SECTION 2: INDIRECT COST OVERHEAD METHODOLOGIES

APPLICATIONS

Indirect costs are those expenditures that cannot be charged directly to a specific project or program, but are still valid costs that need to be included to capture the total value of the project or program. Typically, indirect costs cannot be charged directly because the cost cannot be disaggregated and applied to the project due to the nature of the indirect activity. For example, costs associated with management and staff efforts to assemble and present a departmental budget proposal would be impossible, or very time consuming, to separate by project, when the department budgets for hundreds of such projects each year.

As a result, indirect costs are usually applied to direct expenditures as overhead. Overhead costs are typically allocated to projects based on a methodology that proportionalizes overhead costs to projects via a dependent variable. In the Water Bureau, management and administrative overhead costs are proportionalized to projects and programs on a basis of direct labor costs associated with project or program in comparison with all other projects and programs in an organizational group. There are two primary methodologies utilized to establish overhead. One is the fully allocated cost approach and the other is the incremental cost approach. There are variations on the fully allocated cost approach which result in partial or modified overhead allocations.

The fully allocated and incremental cost overhead approaches produce significantly different cost amounts, and are intended to be utilized for different purposes. The fully allocated cost methodology captures the entire cost (both fixed and variable) of all organizational overhead activities and allocates these costs to projects or programs. All possible overhead costs, at all levels of the organization, are included. Its application provides the full cost of a project or program, such as a water main construction project or a water conservation program.

The fully allocated approach includes both fixed and variable overhead costs. Fixed costs are those that would not change if a program changes, such as the cost of City Council. Variable costs are those that can be modified based on the service level provided, such as electrical pumping costs. As the fully allocated approach includes fixed costs, which cannot be eliminated, it is inappropriate to utilize this overhead methodology for "make or buy" decisions. In "make or buy" decisions, it is assumed that the most expensive alternative can be entirely eliminated. If not, the cost comparison is not valid.

The incremental cost approach includes only overhead costs which are variable. Overhead fixed costs are not included in this approach. The methodology includes only incremental changes (either positive or negative) in overhead cost that are necessary to support the activities which are being compared to the "make or buy" decision. This approach is used solely for "make or buy" decisions. It focuses on the real budget or cash impact to an organization and provides a

more accurate view of savings achievable through each decision. Literature and analysis from professional organizations support the use of the incremental cost overhead methodology for "make or buy" decisions.

The third method that was evaluated is a variation of the fully allocated overhead methodology. This approach (modified overhead methodology), like the fully allocated methodology, includes both fixed and variable overhead costs. But unlike the fully allocated methodology, it includes only overhead costs associated with overhead activities within organizational levels that are closest to the project or program being compared. For example, in the case of a mains construction project, only those overhead costs that are incurred within the Water Bureau Maintenance Group would be allocated to direct project costs. Overhead activities at the Bureau and City-wide level would not be included in the allocation based on the theory that these costs are too far removed and are not influenced by the direct project work of constructing water mains.

Regardless of the overhead approach applied to projects or program activities, the level of service and product/service quality can and should be expected to be the same. Only the manner of comparing costs vary among the alternatives.

The following is a more detail explanation of the full, incremental, and modified cost overhead approaches. The pro and con of each approach is discussed. In addition, a problem solving model is utilized to evaluate the three overhead alternatives, with the incremental approach considered superior.

Narrative in the following Sections 3 through 10 assumes that the incremental cost overhead methodology will be used by the Bureau to analyze "make or buy" issues.

THREE COST OVERHEAD APPROACHES

1. Full Overhead Approach

This approach includes all overhead costs that could be allocated to a project or program. The methodology is presently used to establish full overhead for valuing fixed assets and is calculated annually by staff. It includes overhead charges from the City, the Bureau, and from its Interstate operations. This approach would provide full overhead costs within City government. In this approach, overhead rate applied to direct project personal services cost would be approximately 147%. The effective overhead for a construction project would be in the 30 - 40% range depending on the value of personnel service vs. total direct costs. It would tend to price City construction cost estimates high because of the normally high overhead cost of government.

PRO

- Based on full overhead cost of City government which is justifiable to external challenges. It may be true cost of government.
- Provides important information on the true cost of government which can guide future decisions.
- Fairly easy to calculate if utilizing existing Bureau methodology for fixed assets. The existing process is complicated, but it is already being performed annually by staff for other purposes.

CON

- Not a real estimate of near-term cost or savings impact on operations. Budget cannot be adjusted at this level as it includes considerable fixed costs.
- Prices the value of existing City services unrealistically high which makes estimates non-competitive.

2. Modified Overhead Approach

This approach is a scaled down version of the full overhead approach. Only a portion of City government costs would be included in the overhead calculation. The modified approach includes only the Bureau's Maintenance Group overhead costs. City and Bureau level overhead costs have been excluded. In this approach, the personnel services overhead rate would be approximately 67% when applied to direct project personal services cost. This is a moderate overhead rate and based on earlier bid estimates, it produces an effective overhead rate for a water main installation job in the 10 - 20% range, depending on the level of personnel services costs utilized in the bid.

PRO

- Includes applicable Interstate overhead only, and excludes City and Bureau overhead costs which are relatively fixed and not easily influenced by the direct service or activity.
- If an overhead rate containing fixed costs is to be applied, this approach includes less fixed costs in overhead generating a more moderate estimate.

CON

- Not a real estimate of cost impact on operations. Budget cannot be adjusted at this level as it still includes mostly fixed costs.
- May not be viewed as providing full overhead costs which may lead to an external challenge.
- The overhead calculation can be fairly arbitrary and bid-specific. Approach may be difficult to define and to defend.
- The overhead calculation can be fairly detailed and difficult to prepare. Presents the most administration and development problems.

3. Incremental Overhead Approach

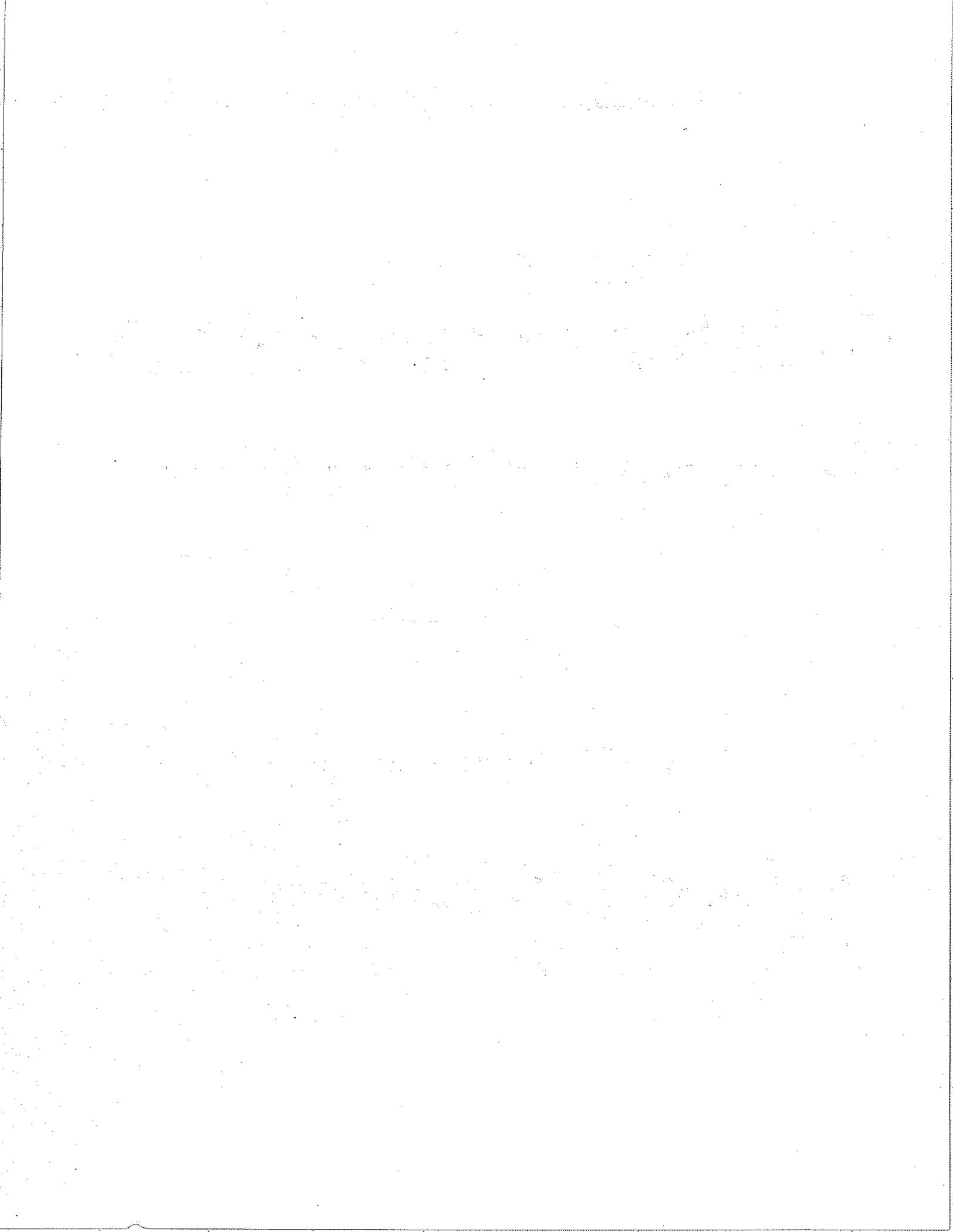
The incremental overhead approach includes only marginal adjustments -- both additions and reductions -- to overhead costs. For example, the incremental increase in indirect or overhead cost to perform a water main installation job might be the additional out-of-pocket cost (e.g., advertising for quotes) incurred by Purchasing to acquire pipe needed for the project. Other costs associated with Purchasing, such as buyers' salaries, stocking and storage, would not change regardless of whether the City or a private contractor performed the work and, therefore, would not be added to the City's or contractor's cost. This overhead approach focuses only on cost adjustments to existing overhead cost. As a practical result, under this approach no fixed overhead costs would be applied to direct City costs associated with either City or private contractor construction services. Only directly identifiable incremental costs (either positive or negative) associated with overhead activities would be added to either the City's and/or contractor's bid.

PRO

- Based on direct cost adjustments which is true budget or cash impact.
- Easy to calculate and justify numbers.
- Easy to apply consistently to a small job such as a water main installation or a program such as grounds maintenance.
- Recognizes that the Bureau has a high level of fixed costs that are not easily adjusted.
- Provides a more realistic view of short-term savings actually achievable by changing a "make or buy" decision.

CON

- Does not identify full overhead cost that may be required to meet a challenge by external parties like AGC.



PROBLEM SOLVING MODEL

The Cost Committee used a problem solving process to determine criteria for a good solution to the following stated problem:

What methodology should be used to determine indirect or overhead costs of a job for use in bid comparison and in deciding a way to achieve least cost and best service to the public?

As part of this process, the committee developed essential and desirable criteria to reach the best cost methodology to address the stated problem.

CRITERIA FOR A GOOD SOLUTION

A Good Cost Overhead Methodology Will...

Essential Criteria:

1. **Be an acceptable method of computing indirect costs** - It should be a method that is recommended by respected, impartial experts in the field. Preferably, it should be a method that is being used by other public agencies that do in-house versus contracting-out comparisons.
2. **Be documentable** - It is essential that the method selected for computing indirect costs have adequate documentation. The methodology must have a clear audit trail so that the calculations can be verified by interested outsiders.
3. **Be defensible** - A good solution must be able to be rationally explained, understandable to affected groups and the results documentable.
4. **Accurately reflect cost to rate payers for comparative purposes** - A good solution must accurately reflect the actual cost impact on the "bottom line" for each decision option. The solution must establish the actual impact on the rate payer (tax payer) for each alternative when making comparisons about the best way to perform a function or group of functions.
5. **Ferret out hidden costs** - The methodology used should help identify and account for costs that are due to the project. Since the overhead costs are a critical and controversial part of the bid comparison, it is essential that the method used properly identify and account for those costs. Also, identification of non-obvious overhead costs can lead to reducing or eliminating those costs and thereby improve our overall efficiency.
6. **Meet legal and contractual requirements** - The methodology used to determine overhead costs must comply with the applicable Oregon Revised Statutes and Rules, the

City of Portland Charter and Code, and the contractual agreements the City has with labor unions and associations, other municipalities, water wholesale customers and individuals.

7. **Meet public expectations of ethical practices** - It is essential that the methodology used to determine cost of service meet with the public expectation of being a fair and ethical practice. As defined by the City Auditor's Office, an ethical practice will assure that practices for purchasing, contracting and hiring include routines that elicit fair choices and assure protection of city assets.
8. **Be in line with City Council direction** - It is essential that the methodology used is in alignment with Council direction and guidelines, including those requiring cost of service applications, reduction of operating costs of city government and the pursuit of innovative solutions to work processes.
9. **Be understandable to Bureau employees** - It is essential that the methodology for determining cost of service be clear and translatable to the employees working with the bid process, as well as others who may be involved or interested.
10. **Be in alignment with the Bureau mission** - The Bureau's mission is...*To act as stewards of our water resource, providing sufficient supplies, efficient and effective service, and excellent quality.* The mission statement includes values to fulfill the mission, such as... *Solvency: maintaining fiscal integrity; Responsiveness: reacting positively, cooperatively and efficiently; Flexibility: adapting to new, different, or changing requirements; and Innovation: recognizing change as a normal state and implementing change imaginatively and creatively.*
11. **Be explainable** - It is essential that the overhead methodology be readily explainable to Bureau staff, City staff, and elected officials. While all overhead approaches are fairly complex and require some background in cost allocation practices, it is helpful if the methodology is reasonably understandable to other parties.

Desirable Criteria:

12. **Be transferable for use by other City agencies** - It is desirable that overhead methodology have application for other City agencies that may wish to contract for services. The Water Bureau approach may be used as a prototype for a city-wide program. As such, it needs to be based on generally accepted industry standards. The methodology developed should, if possible, have application for city-wide use.
13. **Be applicable for comparison purposes for contracting in or out** - A good solution will allow a wide variety of decisions to be evaluated in a common manner. This will include decisions to contract work into the City, contract work out to other vendors, or

to evaluate optional ways of performing different types of work.

14. **Have broad applicability to a diverse range of jobs** - A good solution will allow the system to be used on a wide range of different types of work and/or services. The ideal solution will be applicable to every decision the organization makes to perform work differently than is currently being done.
15. **Be easily administered** - It is desirable that the overhead methodology be easily administered by staff. It is important that the contracting process not unduly burden staff with additional duties. Consequently, minimizing the amount of work required to develop and maintain the overhead allocation for individual jobs is important.

CRITERIA FOR A GOOD COST METHODOLOGY

CRITERIA A GOOD COST METHODOLOGY WILL...	Full Overhead	Modified Overhead	Incremental Overhead
1. Be an acceptable method of computing indirect costs*	X	X	X
2. Be documentable*	X	X	X
3. Be defensible*	X	X	X
4. Accurately reflect cost to ratepayers for comparative purposes*			X
5. Ferret out hidden costs*			X
6. Meet legal and contractual requirements*	X	X	X
7. Meet public expectations of ethical practice*	X	X	X
8. Be in line with City Council direction*	X	X	X
9. Be understandable to Bureau employees*	X	X	X
10. Be in alignment with the Bureau mission*	X	X	X
11. Be explainable*	X	X	X
12. Be transferable for use by other City agencies**	X	X	X
13. Be applicable for comparison purposes for contracting in or out**			X
14. Have broad applicability to a diverse range of jobs**		X	X
15. Be easily administered**	X		X

**Essential Criteria*
***Desirable Criteria*

SECTION 3: ENGINEERING AND RELATED ISSUES

The issues discussed in the following Sections 3 through 8 are questions that arise when competitive bidding occurs in construction jobs. These issues may affect the bid process by either adding costs to a Bureau bid or requiring some adjustment to a contractor's bid.

Discussion of these issues is for the benefit of the bidding parties in assessing whether certain costs should be included in competitive bids for construction projects.

Issue # 1 - Engineering Costs for Design

Issue: How should engineering design and other pre-construction engineering costs be handled for cost comparison purposes?

Discussion: Design costs are incurred during construction regardless of whether the work is performed by a private contractor or City (Bureau) forces. Although similar plans are used, detailed specifications are not required for work performed by Bureau employees. Costs for development of plans is similar for each method, but preparation of specifications adds significantly to the job. Several perspectives on the applicability of the additional cost of preparing specifications can be taken.

1. One view is to add this additional cost to contractors bids as the specifications are being written primarily as contractual requirements that are only necessary when City forces are not constructing the project.
2. Another perspective is that the cost of developing specification should be added to both the Bureau's bid and the contractors bid. This position can be supported based on the theory that the cost of specification development is central and necessary in order to fairly compare a contractor's bid with that of the Bureau's.

Recommendation: It is recommended that these costs can be equally attributed to both the Bureau and construction contractors in accordance with application #2 above.

Application:

City Bid - Add estimated direct cost to bid.

Contractor Bid - Add estimated direct cost to bid.

Issue # 2 - Bid Preparation Costs

Issue: How should bid preparation costs be estimated and tracked for comparison purposes?

Discussion: Since competitive bidding is a relatively new activity for the Bureau, the Bureau has limited information on how much time it should take. For a contractor, this would be an indirect cost that would likely be included in the contractor's overhead calculations. The Bureau will need to set up a mechanism for tracking bid preparation costs, so that they can accurately be estimated in the future. Bid preparation costs will need to be estimated until sufficient data on actual costs have been accumulated. These costs may be higher than contractor's at first. They should decrease as the Bureau becomes more proficient.

Recommendation: Bid preparation costs should be a direct cost of the project and should be added to the Bureau's bid for comparison purposes.

Application:

City Bid - Add estimated direct cost to bid.

Contractor Bid - No adjustment

Issue # 3 - Engineering Costs During Construction

Issue: How should engineering and other costs incurred during construction be handled for cost comparison purposes?

Discussion: Costs are incurred by the Bureau (City) during construction regardless of whether the construction work is performed by a private contractor or Bureau forces. The Bureau incurs costs after the design is complete and/or a contract is signed. These costs are for items that include pre-construction conferences, job staking and other survey services, resolution of public complaints, shoring approvals, job files, inspection during construction, creating as-built drawings, reviewing material submittals, approving traffic control plans. Currently, the cost of these services are significantly more for work done by contractors than work done by Bureau crews. For example, construction inspectors do not inspect Bureau constructed projects because Bureau crew supervisors handle public complaints, insure work quality and insure compliance with Bureau specifications as part of their superintendence responsibilities. These responsibilities are discussed in **Issue #9 - Superintendence**.

Recommendation: It is recommended that direct cost associated with construction be respectively estimated and added to both the contractor's and Bureau's bid.

Application:

City Bid - Add estimated direct cost to bid.

Contractor Bid - Add estimated direct cost to bid.

Issue # 4 - Change Orders

Issue: How should change order preparation and documentation be handled for cost comparison purposes?

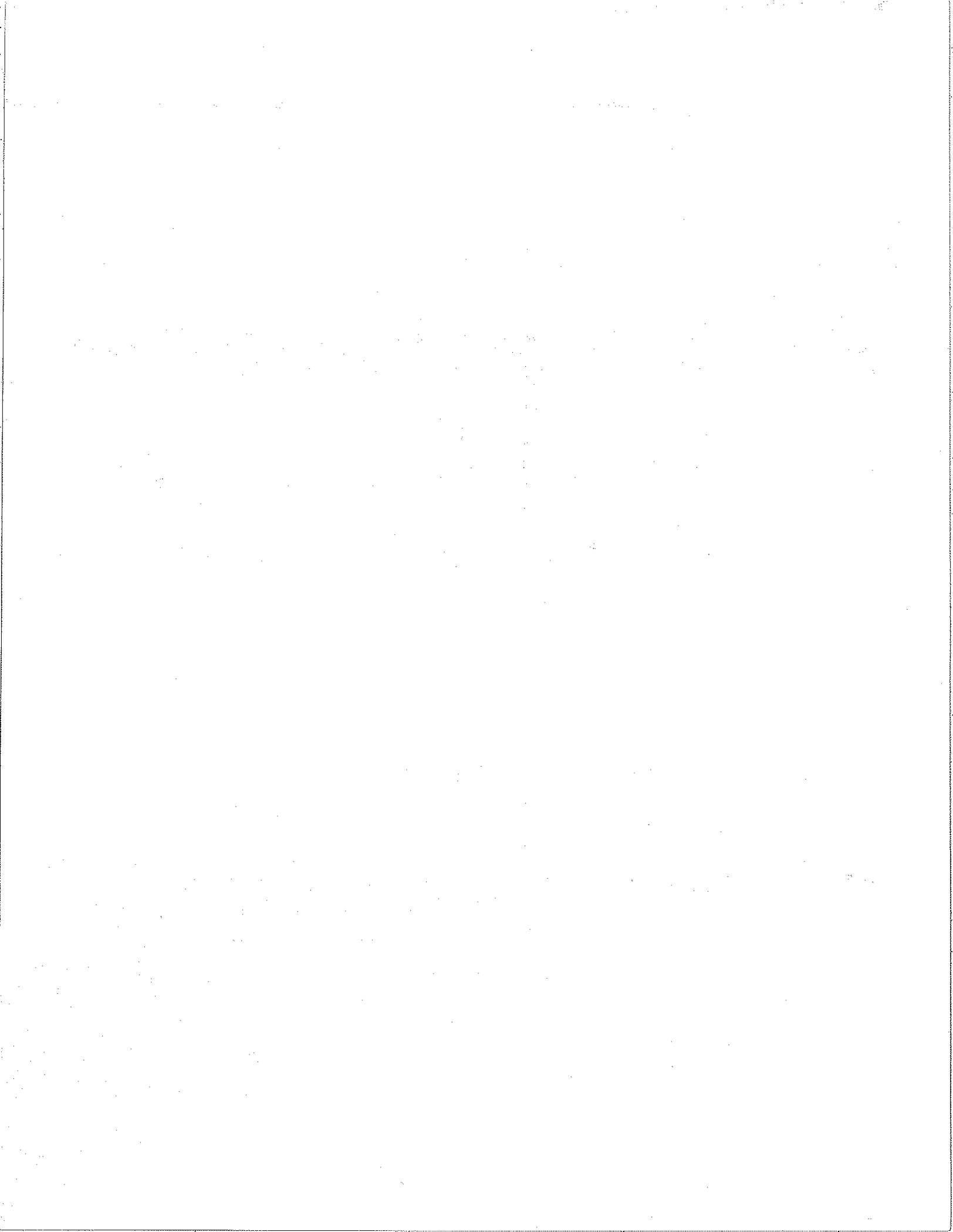
Discussion: Although changes are required in construction by the Bureau or private contractor, the administrative costs involved in making changes in contracted construction is much greater. These costs are not specifically tracked, so an average history on this item is not available. However, it is included in an aggregate cost for all contract administration.

Recommendation: It is recommended that the direct cost of preparing and processing change orders be estimated and added to the contractor's bid. Historical costs should be segregated for future estimating purposes.

Application:

City Bid - No adjustment.

Contractor Bid - Add estimated direct cost to bid.



SECTION 4: PERSONNEL ISSUES

Issue # 5 - Benefits Percentage

Issue: How should City employee benefits be calculated for cost comparison purposes?

Discussion: Currently, the Bureau's project tracking system computes salary and benefit costs based upon the actual hours charged to a particular project by labor classification. The City offers its employees health/welfare benefits that include medical/dental, life insurance, PERS retirement and social security. The amount paid varies by family size and salary. For 1994-95, 21.5% of salary and benefits is added to allow for compensated absences. Workers compensation is included in the compensated absences percentage.

Annually, the Commissioner-in-charge approves a benefits rate (including compensated absences) which is only used when costs must be computed prior to actual data being available. The rate for 1994-95 is 64.5%. Workers compensation is not included in this benefits percentage. The City self-insures its workers compensation program and charges the bureaus based upon incurred costs, claims reserves and other factors. The Water Bureau's cost in 1994-95 is \$511,944. Another 3.2% must be added to the benefit calculation to include workers compensation.

Recommendation: Use direct costs for salary and benefits, plus a percentage for compensated absences which includes workers compensation. For bidding purposes, use a methodology which most closely approximates actual costs. An example of the 1994-95 labor cost for a Utility Worker that has been employed one year is as follows:

	<u>Estimate</u>
Hourly salary *	\$14.88
Benefits percentage (64.5%)	9.66
Workers Compensation (3.2%)	0.48
TOTAL CHARGE PER HOUR	<u>\$25.02</u>

* At one-year rate

Application:

City Bid - Include in all estimated direct cost.

Contractor Bid - Include in all estimated direct cost.

Issue # 6 - Prevailing Wage

Issue: Do City wages meet prevailing wage guidelines?

Discussion: The law requires private contractors, whether union or non-union, to pay prevailing wage rates for work performed for public agencies. The issue has been raised whether or not the City must comply with this law when performing work itself, and if the City currently pays prevailing wages.

It is possible this statute does not apply to the City for several reasons. First, the statute only applies to outside contractors performing the work of the public employer. Second, the City work force is unionized and does pay the prevailing wages for the work as provided in the labor agreement.

In looking at individual job classes and their wages as specified in the prevailing wage guidelines, it could be argued that in some job classifications the City pays below prevailing wages and in others the City pays more than prevailing wage rates. However, in adding both wages and benefits, it is clear the City is comparable to the prevailing wage rates required of the private contractors. For Example:

- Plumbers and steamfitters/pipefitters make \$22.09 per hour, plus \$5.85 in benefits for a total cost of \$27.94 per hour. As of July 1, 1994, City water service mechanics make \$17.66 per hour, plus 64.5 percent of the hourly rate in benefits (including compensated absences) for a total of \$29.05 per hour.
- Prevailing wage guidelines for truck drivers (AEO2's) is \$17.94 per hour plus \$5.89 per hour for a total of \$23.83 per hour. The City's rate is \$15.64 per hour plus 64.5 percent benefits, for a total cost of \$25.73 per hour.

Recommendation: While the City is not obligated under the law to use "prevailing rates" as published by the Bureau of Labor and Industries, City wages are in line with prevailing wage rates required of outside contractors. Therefore, there should be no dispute if the City uses actual City wage and benefit rates for bid purposes.

Application:

City Bid - Use City wage & benefit rates

Contractor Bid - Prevailing wage rates

Issue # 7 - Reporting to Job Site

Issue: Can City employees be required to report directly to job site?

Discussion: Water Bureau Maintenance Group employees normally report to the Interstate facility for job assignments at the beginning of their work shifts. However, due to the location and duration of construction crew jobs, it may be more efficient to have these crews report directly to the job site and leave equipment at the job site.

Recommendation: The current collective bargaining agreement allows for reporting directly to the jobs site. The City will pay the established IRS (Internal Revenue Service) rate of \$.29 per mile when additional miles must be driven to reach the job site.

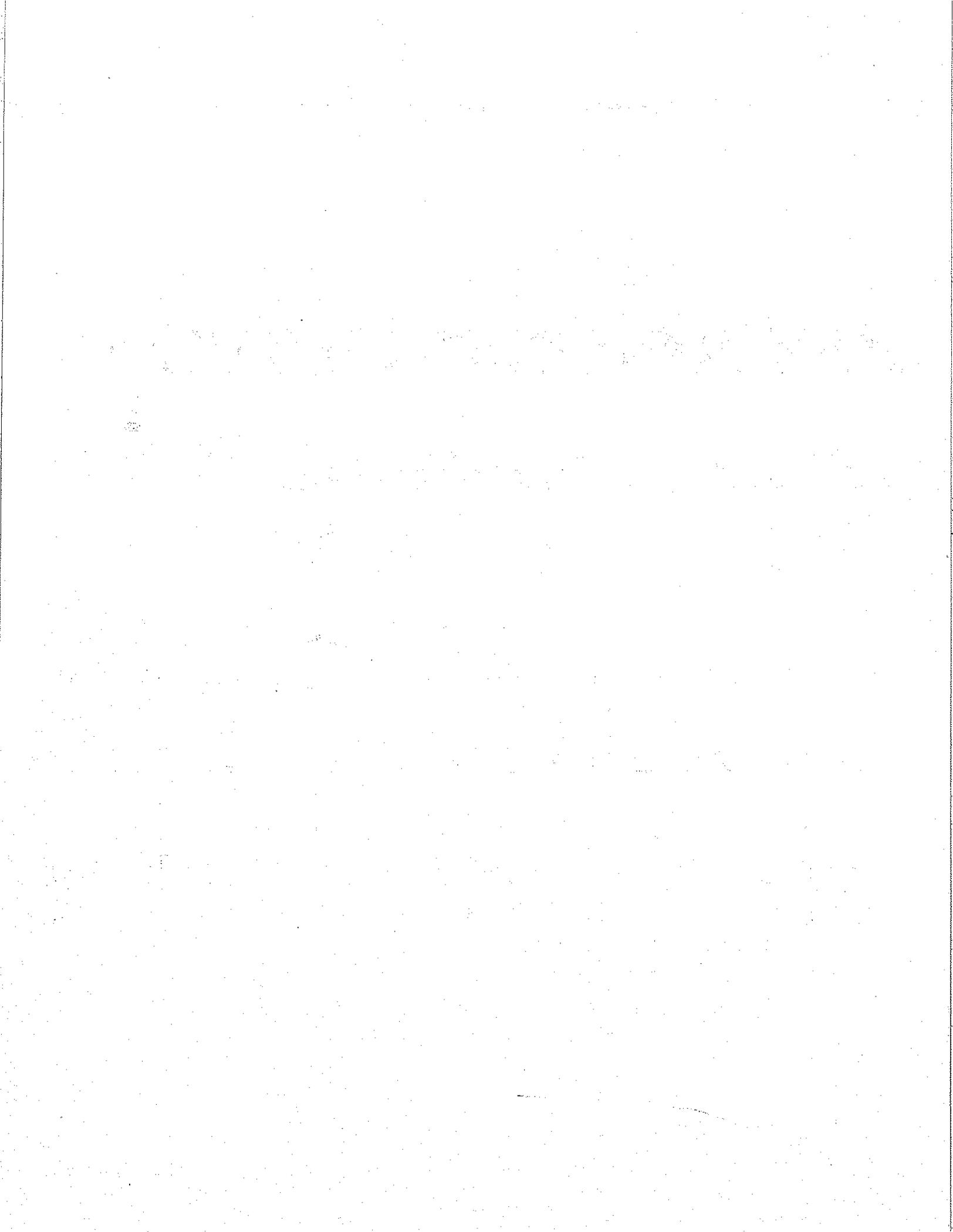
Application: If an employee drives 10 additional miles or more directly to a job site instead of reporting their normally assigned work location, the cost would be \$2.90 per day (10 miles X \$.29 per mile). This will vary depending on job location and the employee's home location.

Issue # 8 - Breakdowns/Extended Delays

Issue: How should breakdowns and extended delays be charged to the job?

Discussion: Breakdowns and extended delays are a real possibility on any large job. This fact needs to be taken into account in preparing bid estimates. For contractors, delays that exceed what is expected can cut into their profits. This is especially true for small contractors who are unable to re-deploy equipment and personnel to, or from, other jobs during a breakdown or extended delay. This could provide a slight cost advantage for the City because of its greater ability to re-deploy personnel and equipment. Rental equipment breakdowns may be more costly, than Bureau-owned equipment breakdowns, if replacements for unique equipment are not readily available.

Recommendation: For estimating purposes, this cost is included in the City's bid as a contingency. Breakdown time for equipment should be charged to the job until replacement equipment can be deployed. Labor costs, during a delay, should be charged to the job until



SECTION 5: SUB-CONTRACTING ISSUES

Issue # 10 - Subcontractors

Issue: How should subcontracting be handled in City bids?

Discussion: Depending on the type, amount and timing of project work involved, the Bureau needs the flexibility to subcontract to others to perform a portion of a project that it may construct through an open public bidding process. For example, if the Bureau's maintenance schedule requires the commitment of its fleet of dump trucks, the Bureau may choose to provide spoils hauling through the services of a subcontractor. In another example, the Bureau may choose to have paving done on its projects through competitive bidding (See Issue # 15, Other Bureau Commitments). Should the Bureau choose to include in its bid, the cost of a subcontracted service, the Bureau would precede its bid submission with a separate public bidding process no different than its current bidding process. In this subcontracting process, however, bid award would be contingent on the city securing the low project bid.

Using the services of subcontractors, in addition to giving the Bureau flexibility in providing certain portions of the work, could also provide an avenue for the Bureau to enhance MBE/FBE participation in Bureau contracting.

All costs involved in the Bureau's use of subcontractors will need to be included in the City's bid. Subcontractors must meet all of the requirements currently required of contractors to perform work for the City bureaus.

Recommendation: It is recommended that when subcontractors are used by the Bureau, all aspects of subcontracting be included as direct costs in the bid.

Application:

City Bid - Included as direct costs in bid.

Contractor Bid - Included as direct cost in bid.

Issue # 11 - Other Bureau Commitments

Issue Can we get a firm bid from the Bureau of Maintenance or other City Bureaus for paving, or other work, on jobs that we bid competitively?

Discussion: The Bureau has all of its paving work done by the City's Bureau of Maintenance. All of the Bureau's large jobs are done on a "cost-plus" basis. Historically, the Bureau's costs for jobs, comparable to a large main extension job, have ranged from \$.59 to \$1.05 per square foot with an average of \$.76. These costs appear to be competitive on the average, but vary too much from job to job. As a result, projects which were originally thought to be competitive with other bidders, may not remain competitive at the completion of the project. Staying competitive may depend on what special requirements are needed, such as traffic control set-up and removal, or requirement for a traffic control person. There may also be specific restrictions on particular city streets and state highways about the time of day the highway or street can be closed or work performed. Two potential solutions to this problem exist:

1. When a project will require a significant level of construction services that have traditionally been provided by another City bureau, require that the provider of the service be determined through open, competitive public bidding.
2. Require the bureau providing construction related services to commit to a final billing for that service that is based on its unit cost estimate, provided during the bid preparation process, and the actual quantities of work provided during the construction of the project.

Recommendation: Require that all construction services not provided by the Water Bureau, which may be provided by a sub-contractor, will be determined through open competitive bidding and included as a direct cost in City bid.

Application:

City Bid - Included as direct cost to bid.

Contractor Bid: Not applicable.

SECTION 6: MATERIAL, SUPPLY AND EQUIPMENT ISSUES

Issue # 12 - Job Site Material Deliveries/Storeroom Costs

Issue: Should the City make arrangements to have materials delivered directly to job site?

Discussion: Currently Bureau trucks travel to the suppliers to pick up rock and take it to the job site. Regardless of the location in the city, Bureau trucks deliver rock from the vendor currently under contract with the City to provide rock. In addition, other materials, supplies and pipe are delivered to the Bureau's Interstate facility and Bureau trucks re-load the materials and take them to job sites throughout the city.

Many contractors on larger jobs have all of the materials delivered to the job site and have the freedom to engage the least expensive combination of materials and hauling costs.

The City's current rock contract bidding process does not consider the cost of delivering rock to the job site and frequently the Bureau is forced to utilize suppliers farther from the job than a competitor because the base price of the rock is cheaper. However, the cost of rock plus hauling may be substantially more expensive.

From a labor agreement point of view, the City does not have any obligation to utilize City labor prior to the material being turned over to the City. As a result, the City has no obligation to use City labor should material suppliers sell and deliver materials to the job site.

Recommendation: Negotiate agreements for rock, pipe and other major materials for delivery to the job site and have them delivered in full loads on an as-needed basis. Have smaller than truck-size loads delivered to the Bureau's Interstate facility and deliver them to the job site in the current manner. Cost associated with delivery of material to the job site should be included in direct costs in the City's bid. Other costs associated with materials delivery from the Interstate store operations to the job site should be direct cost and included in the City's bid. Storeroom handling, storage costs, ordering, inventory control have been traditionally allocated to projects through overhead charges and should continue to be handled in this manner.

Application:

City Bid - Included as direct cost and incremental overhead cost.

Contract Bid - Included as a direct cost.

Issue # 13 - Equipment Rental/Rates

Issue: Should the Bureau rent equipment? If so, how should it be charged? How should in-house equipment be charged?

Discussion: There may be equipment required to do a job that is not available in the City's inventory or that is fully committed to other projects. In this situation, the Bureau must be able to rent the appropriate equipment. Rental equipment costs are likely to be comparable to a contractor's rental cost.

For in-house equipment, the Bureau's accounting section annually develops hourly rates to charge to projects for the use of in-house equipment. These rates include direct costs to the Bureau associated with this equipment. Costs include the amount charged to the Bureau by the City's Fleet Services (which includes repair, maintenance, replacement and overhead) plus Bureau costs for: fuel and fueling, insurance, radios, and repairs and maintenance on equipment not maintained by the City's Fleet Services. The rates, so developed, are approved by the Commissioner-in-charge for use in charging for services performed as provided for in City Code Section 5.48.030(5). These rates may be different from those that might be used by a contractor.

The following compares the hourly cost of the Bureau's fleet rates with locally offered rental rates. These rates are based on a monthly rental period and equipment use frequency rates similar to comparable equipment used by the Bureau's construction crew.

<u>Equipment Item</u>	<u>City Rate</u> (per hour)	<u>Rental Rate</u> (per hour)	<u>Utilization</u> <u>Rate</u>
10-12 yd Dump	\$17.40	\$20.66	85 %
Small Backhoe	15.25	15.63	80 %
Excavator	16.80	42.80	50 %

Recommendation: The Bureau should be able to rent specialized equipment if it is not available in-house and it does not make sense to purchase. If rented, the full cost of the equipment rental should be a direct charge to the job. In-house equipment should be charged at the Bureau's existing equipment rates.

Application:

City Bid - Included as a direct cost in bid.

Contractor Bid - Included as a direct cost in bid.

SECTION 7: LIABILITY AND GUARANTEE ISSUES

Issue # 14 - Liability and Fleet Insurance

Issue: How should general liability and fleet liability be handled in bids?

Discussion: The Water Bureau presently includes its general liability insurance in its fully allocated cost overhead methodology. Under an incremental cost overhead approach, general liability insurance would not be included as a city cost for bid comparison purposes. General Liability insurance costs are lower for the Bureau than for its contractors, in part, because the City's liability risk is limited by Oregon State Statute.

Fleet insurance costs are included in direct equipment rates which are used to determine the City's bid.

Recommendation: When the incremental cost methodology is used, general liability insurance cost should not be included in Bureau bid costs unless staff is added. Fleet insurance should continue to be reflected in the City's bid cost as a direct cost in rental rates.

Application:

City Bid - Include fleet insurance as a direct cost in bid.

Contractor Bid - Included in bid.

Issue # 15 - Proposal Guaranty/Bid Bond

Issue: Should the City be required to provide a proposal guaranty and bid bond when submitting a project bid?

Discussion: Contractors are required to provide a bid bond as part of the bidding process. The bid bond is required to effectively guarantee that the contractor will not back out of his bid until a contract between the City and the contractor can be executed. The bid bond provided by the contractor is usually issued by a financial institution for the amount of the bid and constitutes a contingent loan to the contractor. As such, the contractor usually pays a small premium to the financial institution for the Bond. The cost of this premium, for the contractor must be recovered as a project cost and is likely included in his/her bid. The City incurs minimal costs in connection with the bid bond process and are considered to be direct cost of project administration.

Because the City is both the party receiving bids and the bidder, it has ultimate control on proposal process and should not require a bond providing a surety for itself.

Recommendation: The City should not be required to submit a proposal guaranty and bid bond. The estimated cost of administering the bid bond process is minimal and should not be included as a cost adding to the contractor's bid.

Application:

City Bid - N/A

Contractor Bid - Minimal cost, no adjustment.

Issue # 16 - Performance Bond

Issue: Should the City be required to provide a performance bond?

Discussion: Private contractors are required to provide performance bonds to the City to guarantee the work is completed in an acceptable manner. This is a direct cost to the Contractor. There is no need for the City to provide similar bonds on work it performs since the reason for the bond is to allow the City to recoup any costs necessary for it to complete or correct the work of the Contractor. There is no risk of the City failing to complete its own tasks. City administration costs for dealing with this bond for contracted work are negligible.

Recommendation: City should not be required to provide a performance bond to itself and there is minimal administrative cost involved in dealing with the Contractor's bonding. Therefore, no cost adjustments need be made.

Application:

City Bid - N/A

Contractor Bid - Minimal cost, no adjustment.

Issue #17 - Warranty/Maintenance Surety

Issue: Should adjustments be made for costs associated with warranty/maintenance surety requirements?

Discussion: Contractors are required to provide a two year warranty on all work performed. Similar to the proposal guaranty and bid bond, the surety instrument represents a contingent loan on the part of the issuing financial institution similar to establishing a line of credit. As a result, the institution incurs some cost and risk and requires compensation from the contractor which must be recovered in the contractor's bid. In addition to the contractor's cost to provide the surety, the City incurs administrative costs through inspection at the conclusion of the warranty period and to administer and inspect any repairs required during the warranty period.

It should not be considered necessary for the Water Bureau to provide a bond for its bid, but the Bureau should be responsible for repairs to its work, beginning immediately after construction.

Recommendation: It is recommended that no adjustment for the cost of providing a surety be made to the City's bid. Because City costs associated with administering a contractor's warranty and maintenance surety obligations are small, do not include as a cost to be added to the contractor's bid.

Application:

City Bid - N/A

Contractor Bid - Minimal cost, no adjustment.

Issue # 18 - Liquidated Damages

Issue: How should the City provide for liquidated damages in its bid?

Discussion: Contractors are assessed liquidated damages in-lieu of actual costs if their work is not completed within a specified time frame. It is not known exactly how this potential cost is figured into a Contractor's bid, but it is likely that the Contractor would assume work will be completed on time and that if not, these assessments would come out of the contractor's profit margin. If while performing work, the City overruns its specified completion date, any added costs would be incurred as direct costs and applied to the accumulated project costs. These added costs would be the equivalent of liquidated damages for the City, and will be tracked so that an accurate performance history is established.

In the rare occasion when liquidated damages are applied to a contractor's project, the City often incurs significant administrative costs associated with collecting liquidated damages from a Contractor.

Recommendation: It is recommended that no after bid adjustment be made to either City or contractors' bids for liquidated damages. Because liquidated damages are rarely levied against contractors, the contractors bid should not be adjusted to reflect any contingent administrative cost in connection with levying these claims.

Application:

City Bid - No adjustment.

Contractor Bid - No adjustment.

Issue # 19 - Repair of Damages

Issue: How should the costs involved in repair of damages be accounted for in the bid comparison?

Discussion: During construction operations, occasionally damage is done to private or public property. Such damage adds cost to a project both for direct repair of the damage and administrative work. When a contractor or City crew damages property of others, they are responsible for the repair of that damage. The cost for such repairs becomes a direct cost of the work. For bidding purposes, it is assumed the contractor accounts for these costs in general contingency.

There are also administrative costs incurred by the City which are generally greater for contracted work than for work done by City crews. The difference between those incurred for a contractor vs. City crews are the added costs to coordinate, administer, and inspect a contractor's repairs.

Recommendation: No specific adjustment to the bids should be made to cover damages inflicted on others and should be accounted for within the City's contingency. These occurrences are infrequent and unplanned and are paid directly by the contractor or City.

Application:

City Bid - Included in bid contingency.

Contractor Bid - No adjustment.

SECTION 8: OTHER RELATED ISSUES

Issue # 20 - Pre-qualification

Issue: Should the City pre-qualify itself similar to its pre-qualification of contractors?

Discussion: Contractors are required to submit documentation for pre-qualification in Water Bureau work annually. It is not reasonable to require the Water Bureau to prove to itself that it is qualified to contract for its own work. The Bureau would only bid on the types of work which staff have historically performed and for which they have expertise. There are minimal administrative costs associated with pre-qualification.

Recommendation: The City need not pre-qualify itself. Administrative costs are minor and should not be applied to the contractor's bid.

Application:

City Bid - N/A

Contractor Bid - Minimal cost, no adjustment.

Issue # 21 - Progress Payments

Issue: How should progress payment processing be handled for cost comparison purposes?

Discussion: This is an issue of paying Contractors based upon completion of specific portions of a job. When City employees perform the work, there are no progress payments, but wages and materials are paid through the normal payroll and accounts payable system as work is done or materials are billed. To receive progress payments, contractors are required to prepare detailed invoices as part of their work. The City has administrative costs in reviewing invoices and preparing payment. These costs are not specifically tracked, so an average history on this item is not available. However, it is included in an aggregate cost for all contract administration.

Recommendation: The cost of handling progress payments should be applied to the contractor's bid as a direct cost included in contract administration.

Application:

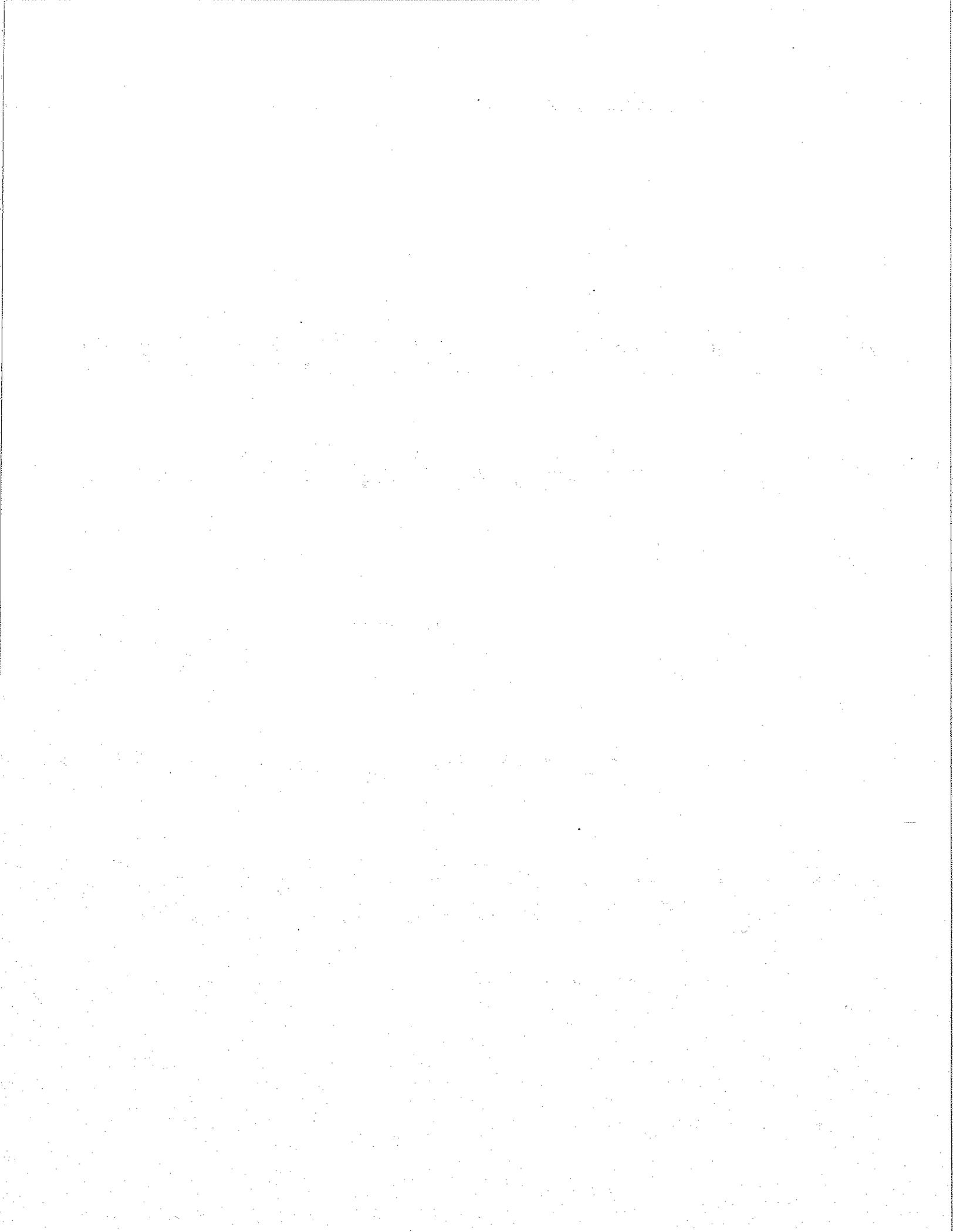
City Bid - No adjustment.

Contractor Bid - Included as a direct cost to the bid.

SECTION 9: APPLICATION OF COST METHODOLOGIES TO BIDS

The following **Table - Application of Cost Methodologies to Bids**, has been prepared to demonstrate the application of the Cost Committee's recommendations on those issues with cost implications and to show the range of bid outcomes resulting from the application of each overhead methodology. In constructing the table, the committee utilized the Water Bureau's mock bid and the bid of the lowest bidding contractor for the construction of water mains for a grouping of smaller projects termed the "SW Westwood Package". This project was awarded to Werbin West in the Spring of 1994. As the table shows, by applying the committee's recommended incremental or avoided methodology, the City's bid compares favorably to the lowest bidding contractor.

The City's mock bid and those of all bidders on the project, detailed by bid item, is also provided in an accompanying table titled "**SW Westwood Package**".



APPLICATION OF COST METHODOLOGIES TO BIDS

10/18/94

ISSUE	DESCRIPTION	CALCULATION	WATER BUREAU				CONTRACTOR - Werbin West				
			DIRECT	OVERHEAD METHODOLOGY		DIRECT	OVERHEAD METHODOLOGY				
				FULL	MODIFIED		INCREMENT.	FULL	MODIFIED	INCREMENT	
	Bid Direct Costs		309,044	309,044	309,044						
	Bid Contingency		21,880	21,880	21,880						
	Overhead/Indirect	X% of Labor*	89,251	40,679							
	TOTAL ORIGINAL BID		330,924	420,175	371,603	330,924		362,024	362,024	362,024	362,024
1	Engineering Design	15.7% of Bid**	56,838	98,329	79,573	56,838		56,838	98,329	79,573	56,838
2	Bid Preparation	0.5% of Bid	1,655	Included in bid overhead.		1,655		Included in bid.			
3	Inspection***	5.5% of Bid****	Included in superintendency.					19,911	34,447	27,876	19,911
4	Contract Administration*****	1.7% of Bid****	Included in superintendency.					6,154	10,647	8,616	6,154
9	Superintendence	9.8% of Labor	5,950	Included in bid overhead.		5,950		Included in bid.			
12	Material Handling	1.0% of Mat'l	1,050	In bid OH.	1,050	1,050		Included in bid.			
	TOTAL ADJUSTED BID		396,417	518,504	452,226	396,417		444,927	505,447	478,089	444,927
5	Benefits Percentage		Included in bid direct costs.					Included in bid.			
6	Prevailing Wage		Included in bid direct costs.					Included in bid.			
7	Reporting to Job Site		Included in bid direct costs.					Included in bid.			
8	Breakdowns/Extended Delays		Included in bid contingency costs.					Included in bid.			
10	Subcontractors		Included in bid direct costs.					Included in bid.			
11	Other Bureau Commitments		Included in bid direct costs.					Not applicable.			
13	Equipment Rental/Rates		Included in bid direct costs.					Included in bid.			
14	Liability/Fleet Insurance		Fleet in bid direct costs. General liability in overhead.					Included in bid.			
15	Proposal Guarantee/Bid Bond		Not applicable.					Minimal cost, included in contract administration.			
16	Performance Bond		Not applicable.					Minimal cost, included in contract administration.			
17	Warranty/Maintenance Surety		Not applicable.					Minimal cost, included in contract administration.			
18	Liquidated Damages		Not applicable.					Minimal cost, included in contract administration.			
19	Repair of Damages		Not applicable.					Minimal cost, included in contract administration.			
20	Pre-qualification		Included in bid contingency costs.					Included in bid.			
21	Progress Payments		Not applicable.					Minimal cost, included in contract administration.			
			Not applicable.					Included in contract administration.			

* Full overhead - 147%, Modified - 67%

** 15.7% of contractor's bid. Same amount for Water Bureau.
Plus Water Bureau overhead of Full - 73% of Engineering Group Labor;

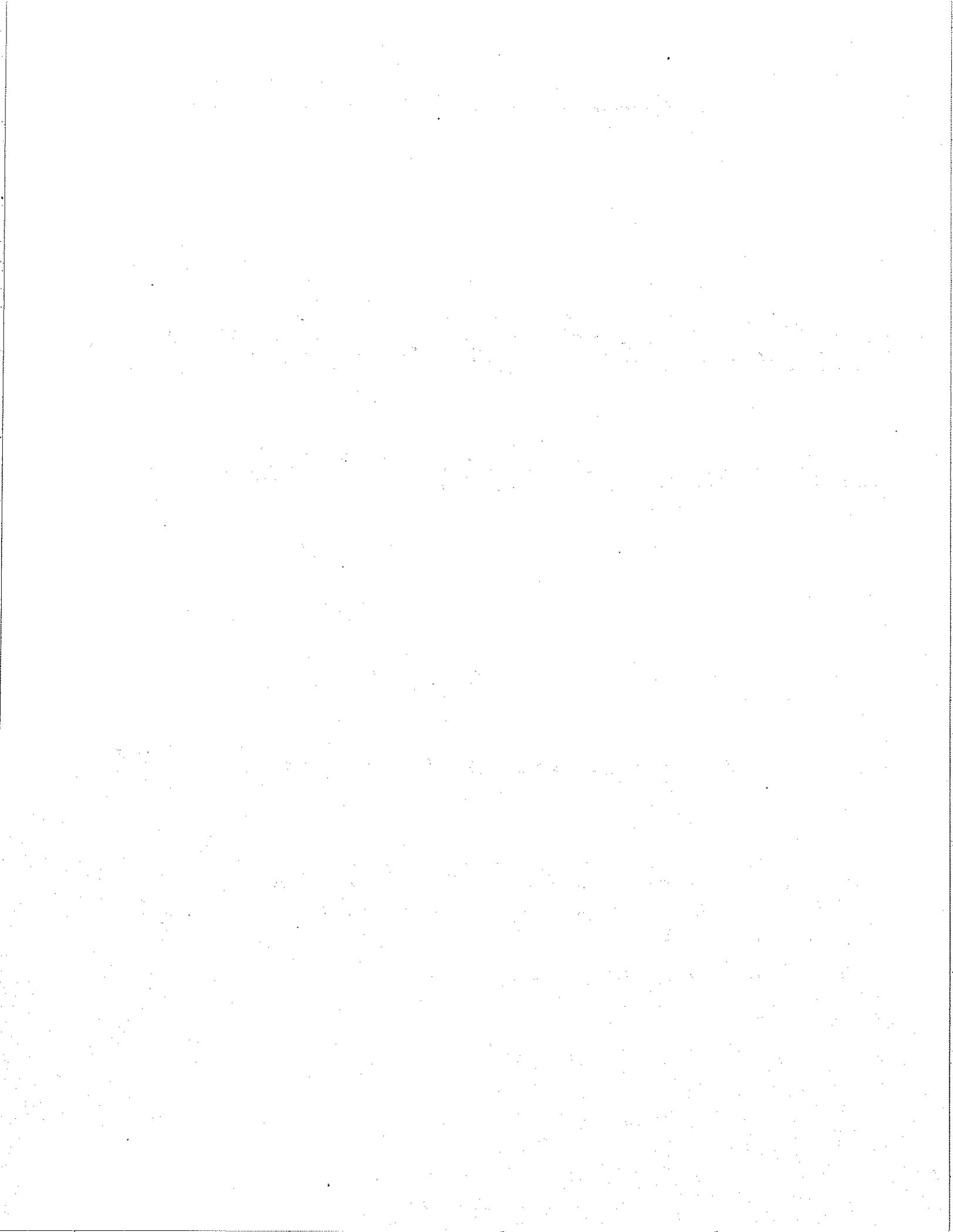
Modified - 40% of Engineering Group Labor

*** Inspection is the major portion of engineering during construction. Remainder included in contract administration.

**** Plus Water Bureau overhead of Full - 73% of Engineering Group Labor;

Modified - 40% of Engineering Group Labor

***** Includes #4-change orders, #21-progress payments and minimal cost issues #15-18 & 20.

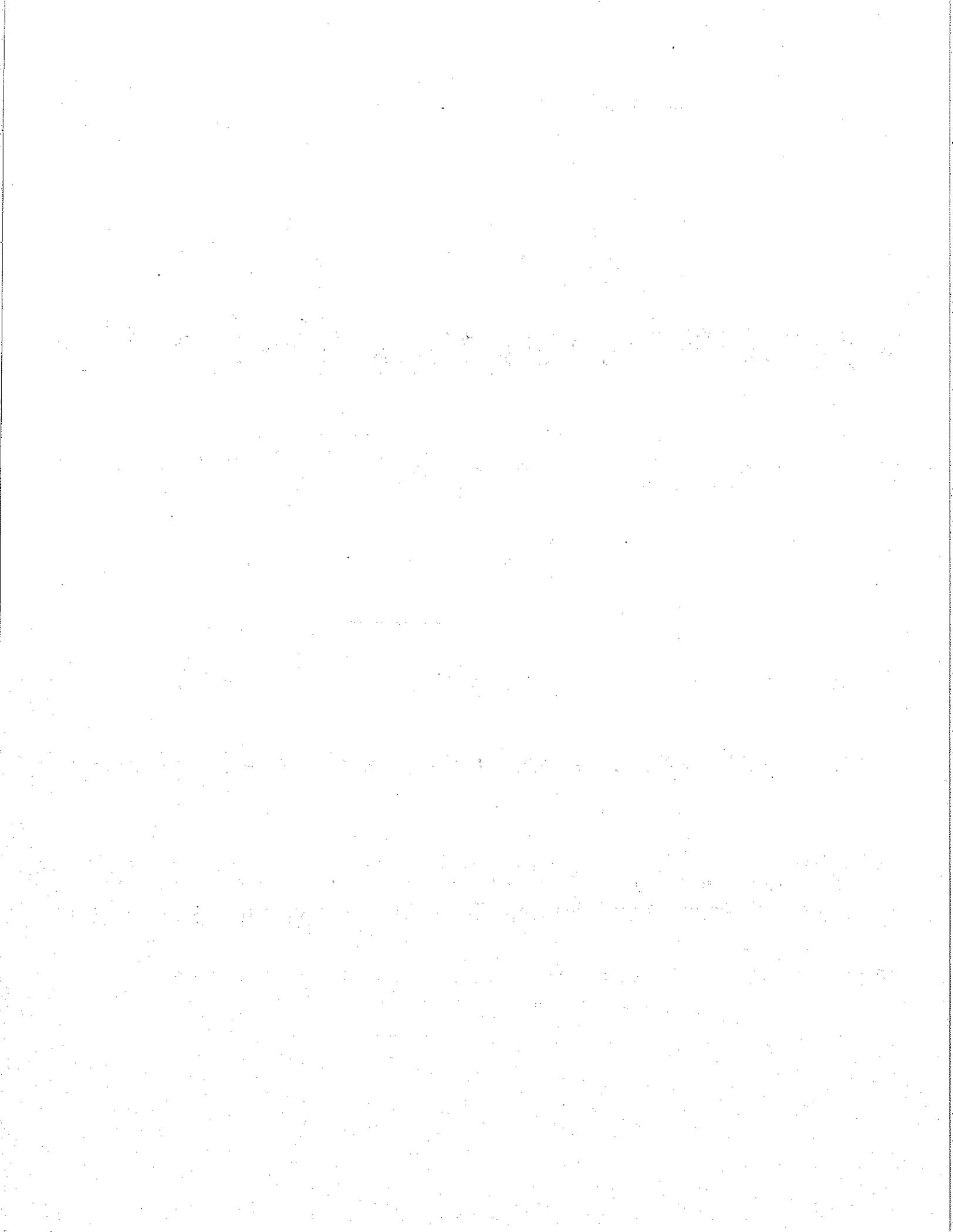


SW WESTWOOD PACKAGE
12-Inch, 6-Inch and 4-Inch Water Mains

Item	Description	Qty	Units	Engineers Estimate		Werbin West		Interstate Mock		Cappenhagen		John Arnold		Marshall Assoc.		Les Brown		K & R Plumbing		Nutter Undergroun	
				Price	Total	Price	Total	Price	Total	Price	Total	Price	Total	Price	Total	Price	Total	Price	Total	Price	Total
1	Excavation of Trench	3942	Cu. Yd.	\$11.00	\$43,362	\$35.00	\$137,970	\$27.00	\$106,434	\$16.00	\$63,072	\$16.50	\$65,043	\$3.00	\$19,710	\$3.00	\$11,826	\$39.75	\$156,695	\$13.00	\$51,246
2	Pipe Zone Bedding	1839	Cu. Yd.	13.00	23,907	7.50	13,793	16.00	29,424	20.00	36,780	17.00	31,263	6.00	11,034	6.00	11,034	11.20	20,597	12.00	22,068
3	Trench Backfill (Import)	1254	Cu. Yd.	13.00	16,302	10.00	12,540	27.50	34,485	20.00	25,080	17.00	21,318	6.00	7,524	6.00	7,524	11.20	14,045	18.00	22,572
4	Trench Backfill (Native)	125	Cu. Yd.	11.00	1,375	5.00	625	20.00	2,500	10.00	1,250	8.00	1,000	6.00	750	6.00	750	5.00	625	10.00	1,250
5	12" DI Pipe	2451	Cu. Yc.	23.00	56,373	17.00	41,667	15.50	37,991	22.00	53,922	25.00	61,275	45.00	110,295	45.00	110,295	27.40	67,157	28.00	68,628
6	6" DI Pipe (Restrained)	266	Lin. Ft.	29.00	7,714	25.00	6,650	27.00	7,182	35.00	9,310	32.50	8,645	47.00	12,502	47.00	12,502	29.00	7,714	46.00	12,236
7	6" DI Pipe	5080	Lin. Ft.	22.00	111,760	8.50	43,180	10.00	50,800	14.00	71,120	13.50	68,580	20.00	101,600	20.00	101,600	13.10	66,548	25.00	127,000
8	6" DI Pipe (Restrained)	2180	Lin. Ft.	20.00	43,600	12.50	27,250	10.00	21,800	19.00	41,420	18.75	40,875	33.00	71,940	33.00	71,940	12.50	27,250	37.00	80,660
9	4" DI Pipe (Restrained)	135	Lin. Ft.	15.00	\$2,025	15.00	2,025	11.50	1,553	14.00	1,890	17.75	2,396	20.00	2,700	20.00	2,700	10.60	1,431	32.00	4,320
10	AC Pavement (Base) 1-1/2" Thick	928	Sq. Yd.	23.00	21,344	8.00	7,424	9.00	8,352	6.00	5,568	15.00	13,920	17.00	15,776	8.00	7,424	17.50	16,240	10.50	9,744
11	AC Pavement (Base) 4-1/2" Thick	1144	Sq. Yd.	28.00	32,032	22.00	25,168	27.00	30,888	18.00	20,592	27.00	30,888	29.00	33,176	14.00	16,016	36.00	41,184	28.50	32,604
12	AC Pavement (Top Lift) 1-1/2" Thick	114	Sq. Yd.	23.00	2,622	18.00	2,052	12.50	1,425	5.00	570	17.00	1,938	27.00	3,078	6.00	684	25.60	2,918	27.50	3,135
13	Concrete Pavement	310	Cu. Yd.	45.00	13,950	50.00	15,500	21.50	6,665	85.00	26,350	90.00	27,900	96.00	29,760	20.00	6,200	74.00	22,940	55.00	17,050
14	Crushed Rock - Pavement Base	336	Cu. Yd.	11.00	3,696	10.00	3,360	16.50	5,544	20.00	6,720	17.00	5,712	36.00	12,096	12.00	4,032	12.00	4,032	18.00	6,048
15	Crushed Rock - Resurfacing	374	Sq. Yd.	8.00	2,992	5.00	1,870	15.00	5,610	2.50	935	6.00	2,244	6.00	2,244	9.00	3,366	4.00	1,496	5.50	2,057
16	12" Gate Valve	3	Ea.	1,000.00	3,000	800.00	2,400	674.00	2,022	1,100.00	3,300	1,250.00	3,750	1,300.00	3,900	2,000.00	6,000	950.00	2,850	850.00	2,550
17	6" Gate Valve	12	Ea.	500.00	6,000	300.00	3,600	268.50	3,222	370.00	4,440	400.00	4,800	550.00	6,600	400.00	4,800	320.00	3,840	330.00	3,960
18	4" Gate Valve	1	Ea.	350.00	350	250.00	250	233.00	233	300.00	300	370.00	370	380.00	380	300.00	300	250.00	250	250.00	250
19	Fire Hydrant	8	Ea.	1,900.00	15,200	1,500.00	12,000	1,380.50	11,044	1,960.00	15,680	1,750.00	14,000	1,200.00	9,600	1,800.00	14,400	2,400.00	19,200	2,500.00	20,000
20	3/4" Air Release	4	Ea.	350.00	1,400	150.00	600	212.50	850	740.00	2,960	2,000.00	8,000	350.00	1,400	300.00	1,200	370.00	1,480	1,100.00	4,400
21	2" Blowoff	2	Ea.	500.00	1,000	350.00	700	390.00	780	1,140.00	2,280	500.00	1,000	300.00	600	360.00	720	850.00	1,700	700.00	1,400
22	Construction Signs	14	Ea.	200.00	2,800	100.00	1,400	200.00	2,800	115.00	1,610	250.00	3,500	120.00	1,680	200.00	2,800	300.00	4,200	150.00	2,100

\$412,804 \$362,024 \$371,603 \$395,149 \$418,417 \$454,932 \$465,503 \$484,392 \$495,278

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SECTION 10: NO COST ADJUSTMENT ISSUES

In addition to the previous issues reviewed, the following seven issues were discussed by the Cost Committee as relevant in comparing the work of a private contractor with the City. These issues require no cost adjustments for either a City bid or a private contractor's bid. The committee believes, however, that they are important issues to consider in the context of competitive bidding and creating a cost-effective and quality work environment.

Issue # 1 - Construction Standards

Issue: Should the City be held to the same construction standards as the Contractors?

Discussion: It is important that consistency be maintained within work standards to both maintain the water system and fairly compare public and private bids for work.

Recommendation: Keep construction standards consistent. Hold both the City and Private Contractors to the same standards.

Issue # 2 - Staffing Construction Crews

Issue: Should workers be shifted from one assignment to another during periods of slack work, breakdowns or other problems causing less work in the assigned areas?

Discussion: The current collective bargaining agreement contains bid language which by contract and by practice require the bidding of jobs in the Water Bureau by work unit rather than by individual truck. The contract also provides that union and management can develop alternate methods of selecting people for new or vacant positions by mutual agreement.

In addition, the ability to temporarily shift employees from one job to another when there is a legitimate business need has always existed and continues. It is one of the benefits of City employment to be insured of a steady flow of available work because of the large number of jobs that need to be performed.

Recommendation: It is recommended that the Bureau utilize volunteer employees for the new work. Indicate the clear demands of the jobs, requirements for teamwork and flexibility, differences in working conditions from normal maintenance functions, and the need to be innovative. If more workers volunteer than are needed, the union and management can set up

a system of joint interviews and discussions with all of the volunteers in an effort to mutually agree on the group providing the best "fit" of personalities and skills for a self-directed team approach to the project.

Union and management agree on the specific requirements for each of the jobs, specifying the needed flexibility, the willingness to report to the work site, agreement to be flexible and willingness to try new and different approaches to getting the job done. Each must be a "team player" in dealing with co-workers. These requirements can be clearly articulated in a posting for volunteers.

This is in no way intended to erode the traditional seniority bid system, and seniority will clearly be a factor in determining from among volunteers. However, understanding that this is a new concept, we do not believe a seniority-only criteria is appropriate nor do we think exclusive management choosing is appropriate. We believe that through mutual knowledge we can do a better job of fitting the right person to the right position.

Issue # 3 - First Source

Issue: How should the First Source Hiring Program be handled in bidding situations?

Discussion: This program targets disadvantaged City residents and particularly residents of North/Northeast Portland for new hires. There is a certain amount of paperwork required of the contractor to meet this program. City administration costs appear to be negligible. Contractors may be concerned that no similar program exists for hiring city employees. The City does have a program to insure its compliance with EEO requirements and actively pursues the recruitment of women and minorities.

Recommendation: It is recommended that no cost adjustment be made to either the contractors or the city's bid. This issue should be reviewed with the City's Bureau of Personnel Services.

Issue # 4 - MBE\FBE

Issue: Should the City be held to the same FBE/MBE requirements as its contractors?

Discussion: Contractors are encouraged to provide work to MBE/FBE firms in their bids. It is City policy to foster MBE/FBE firms and special consideration should be given to these firms when looking at sub-contractors for part of the work. Contracting work in house could give the

City more opportunity to support and promote MBE/FBE firms.

There is a certain amount of paperwork/cost required of the contractor to meet this program. City administration costs are negligible.

Recommendation: It is recommended that the City look at how they can use MBE/FBE subcontractors more effectively when preparing bids and use MBE/FBE subcontractors whenever possible. However, this is a negligible cost issue and no cost adjustment should be made to either bid.

Issue # 5 - Business License

Issue: How do franchise fees and business license fees affect comparisons?

Discussion: The contractor pays a business license fee to operate within the City. This fee must be paid whether or not the contractor works on City projects. The Water Bureau, like other City agencies, does not pay a Business License fee. The Bureau does, however, pay a utility franchise fee on the revenues received from operating a water utility within the City. The franchise fee entitles the Bureau to operate and construct facilities within the City. (Similarly, private utilities, such as PGE and U.S. West Communications, pay franchise fees on all regulated income from in-City utility operations.) The franchise fee rate (at 8% on the revenues from in-City water sales) paid by the Water Bureau is greater than the rate charged to private utilities because it also includes a portion which is considered a payment in lieu of property tax.

Because water rates (and therefore, revenues) are set to recover the cost of operating, repairing and improving the water system, any work by City crews or by contractors will result in an obligation to pay the City approximately 8% of the cost of doing the work.

Recommendation: Business license fees must be paid by contractors regardless of whether they bid on City projects or not. Therefore, this cost is not relevant for comparison purposes. Franchise fees are the same regardless of who constructs the project; so, again, this cost is not relevant for comparison purposes.

Issue # 6 - State Contractors License

Issue: Should any adjustment be made because the City is not required to have a state contractor's license, while contractors must have valid licenses?

Discussion: The City requires its contractors to be licensed as a contractor by the State of

Oregon. Contractors are licensed in order to help protect consumers from unqualified contractors. Governments are exempt from this requirement.

Recommendation: Continue to require contractors to be licensed.

Issue # 7 - Tracking Project Costs

Issue: How should all costs be tracked and monitored?

Discussion:

The City of Portland Water Bureau's (WB) Project Tracking System (PTS), supported by other subsystems and review procedures within the accounting division, provides comprehensive reports of actual project costs and the necessary detail/documentation for review and audit of these costs.

Project Assignment, Review, and Costs

Each construction project is assigned an unique project number and location/description in the Water Bureau's PTS system which allows for the capturing and reporting of all costs charged to a project.

After review by payroll and cost accounting staff, personnel and equipment time is entered directly from the crew time sheets (hours charged by project and location) into the Payroll/Personnel Tracking System. This system computes personnel and equipment charges based on the entered time and on the approved labor and equipment rates within the system, and provides a system check of project charges.

Material/stock charges are entered by the Bureau's operations stores staff, from the stock requisition and disbursement slips completed by work crews, into the WICS Inventory system which checks the entries being made. The original stock requisition, disbursement, and credit slips are forwarded to the cost accounting section of the Water Bureau for review.

Project charges, from external vendors for material and services or from other City bureaus, are reviewed and entered into the PTS system by Water Bureau accounting staff.

PTS Project Reports

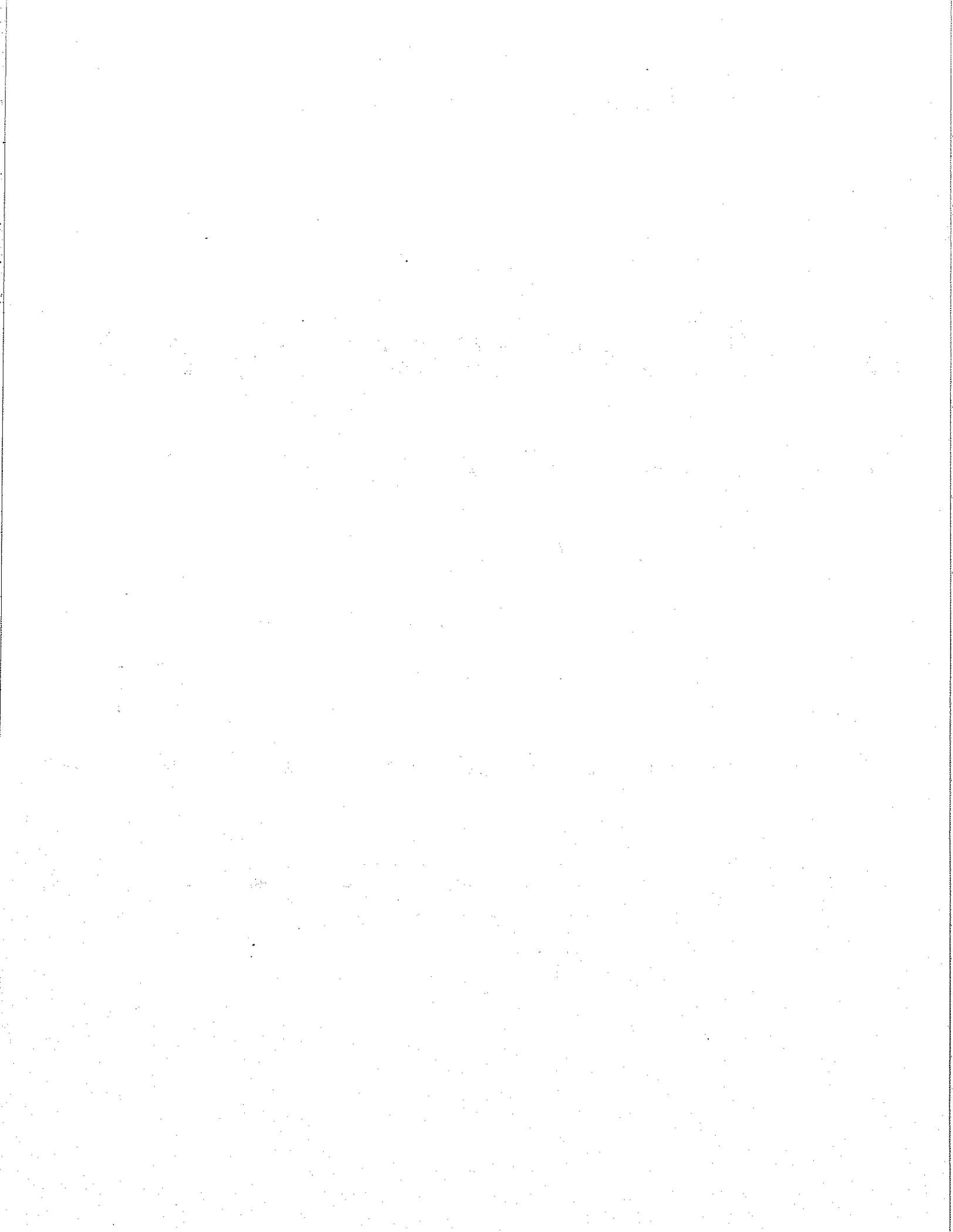
Each accounting period(AP), PTS provides a "Status Report" which summarizes all the actual charges made to a project within each AP, and provides a fiscal year to date summary. The project "Status Report" summarizes costs by categories.

Project File Documentation

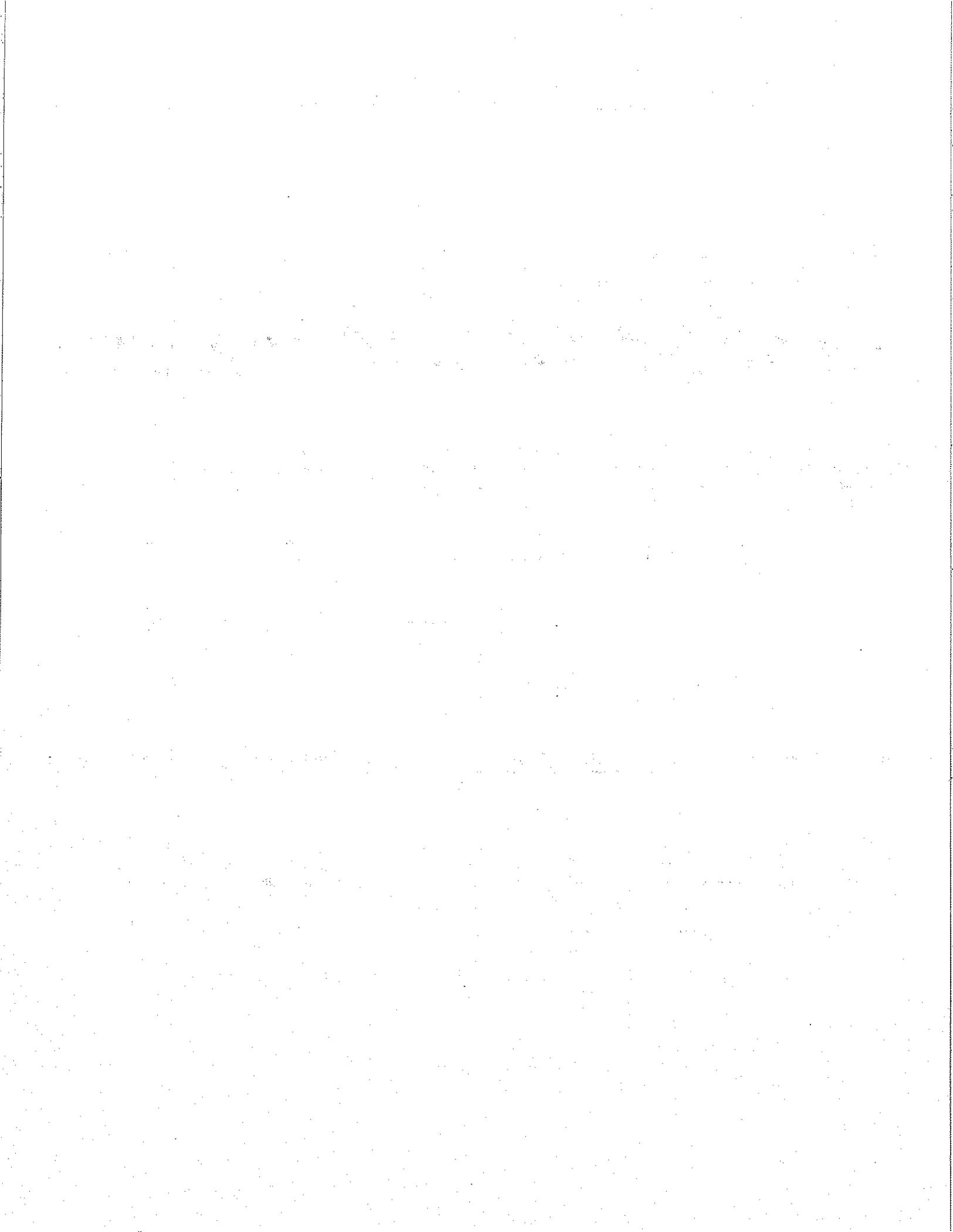
Each project file contains the following detail:

- Personnel Services and Equipment: the "Act/Prj Labor Cost" report lists the dates of work, names and class codes of workers, hours charged, equipment ID #/hours, and salary/equipment dollar charges.
- Material/Stock: the project file contains the original stock requisition/disbursement and credit slips. These slips provide the project number, location, quantity, commodity code, and cost.
- Project Charges: charges in other cost categories are supported by filed copies of invoices and other billing documents.

Recommendation: It is recommended that PTS continue to be the system used to capture all Water Bureau project construction costs, and to prepare final project cost reports which include any necessary stock handling and overhead percentages. Personnel costs to input and track the data for a contract versus Bureau projects are similar, and any differences insignificant.



APPENDICES



APPENDIX 1: SUMMARY OF ISSUES

REFERENCE: SECTIONS 3 THROUGH 8

The Cost Committee identified a list of procedural issues related to determining how overhead costs should be calculated. The committee recommends using the incremental cost methodology, applied to all directly identifiable costs for making comparisons between City and contractor bids. The following is a summary of the issues detailed in Sections 3 through 8:

Section 3: Engineering and Related Issues

1. **How should engineering design and other pre-construction engineering costs be handled for cost comparison purposes?** - All costs associated with the preparation of plans and specifications will be treated the same for both City and contractor bids.
2. **How should bid preparation costs be estimated and tracked for comparison purposes?** - Any direct bid preparation cost should be added to the Bureau's bid for comparison purposes.
3. **How should engineering and other costs incurred during construction be handled for cost comparison purposes?** - Direct cost associated with construction performed by a contractor and the City will be respectively estimated and added to both bids.
4. **How should change order preparation and documentation be handled for cost comparison purposes?** - Add estimated direct cost of preparing and processing change orders to the contractor's bid.

Section 4: Personnel Issues

5. **How should City employee benefits be calculated for cost comparison purposes?** - Use direct costs for salary and benefits, plus a factor for compensated absences and include workers compensation insurance costs.
6. **Do City wages meet prevailing wage guidelines?** - The City is not obligated under law to pay "prevailing" rates; however, City wages are in line with prevailing wage standards.
7. **Can City employees be required to report directly to the job site?** - City bid estimate should be based on employees reporting directly to job site, paying mileage as required by contract.
8. **How should breakdowns and extended delays be charged to the job?** - Breakdown time for equipment should be charged to the job until replacement equipment can be deployed. Labor costs during a delay should be charged to the job until personnel can be re-deployed to other productive work.

9. **What levels of superintendence should be included in bids and direct charges?** - First line project superintendence only should be included as an estimate in direct cost of the City's bid.

Section 5: Sub-Contracting Issues

10. **How should City subcontracting be handled in City bids?** - All aspects of subcontracting should be included as direct costs.
11. **Can we get a firm bid from the Bureau of Maintenance, or other City bureaus, for paving or other work on jobs that we bid competitively?** - Require all construction services not provided by the Water Bureau to be provided by a subcontractor determined by open competitive bidding.

Section 6: Material, Supply and Equipment Issues

12. **Should the City make arrangements to have materials delivered directly to the job site?** - Negotiate agreements to have all materials delivered to job site whenever possible. Where not possible, have delivery to Interstate and deliver by current method. Charge delivery time as direct cost.
13. **Should the City (Bureau) rent equipment? If so, how should it be charged? How should in-house equipment be charged?** - Rent equipment not available in-house when needed. If rented, charge the full cost of the rental as a direct cost. In-house equipment to be charged as a direct cost at existing equipment rates.

Section 7: Liability and Guarantee Issues

14. **How should general liability and fleet liability be handled in bids?** - General liability insurance costs only included in fully allocated overhead. Fleet insurance included as a direct cost as is current practice.
15. **Should the City be required to provide a proposal guarantee and bid bond when submitting a project bid?** - The City should not be required to submit a proposal guarantee and bid bond. The administrative cost associated with bid bond is minimal and should not be added to the contractor's bid.
16. **Should the City be required to provide performance bond?** - The City should not be required to provide a performance bond.
17. **Should adjustments be made for costs associated with warranty/maintenance surety requirements?** - No adjustment to City's bid should be made for the cost of proving surety.

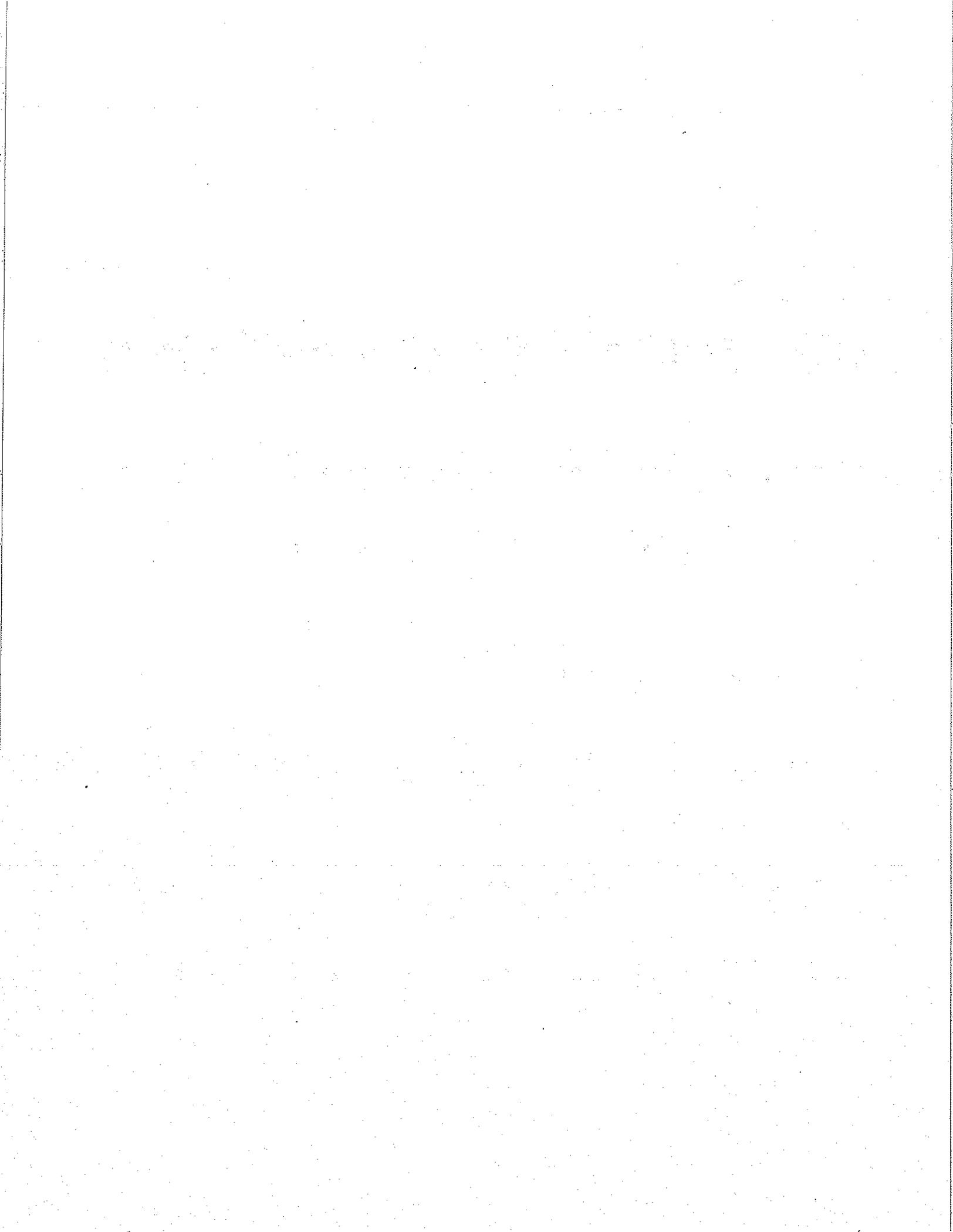
18. How should the City provide for liquidated damages in its bid? - No adjustment need be made to the City's or contractors' bids.

19. How should the costs involved in repair of damages be accounted for in the bid comparison? - Include in City's bid contingency.

Section 8: Other Related Issues

20. Should the City pre-qualify itself similar to its pre-qualification of contractors? - The City should not be required to pre-qualify and no bid adjustments should be made.

21. How should progress payment processing be handled for cost comparison purposes? - The cost of handling progress payments should be applied to the contractor's bid.



APPENDIX 2:

ARTICLES, CORRESPONDENCE AND BOOKS USED AS BACKGROUND FOR DEVELOPING COST METHODOLOGY

ARTICLES/JOURNALS/REPORTS

Privatization: Contracting Local Government Services, Issues and Options, Volume 1, No. 8; published by National League of Cities, September, 1993.

Report of the Transportation Contracting Out Panel; City of Portland Office of Transportation; April, 1990.

Privatization and Public Employees: Guidelines for Fair Treatment; John O'Leary and William D. Eggers; published by *Reason Foundation*; September, 1993.

How to Compare Costs Between In-House and Contracted Services; Lawrence Martin; published by *Reason Foundation*; March, 1993.

Analyzing the Contracting-Out of Government Services: Relevant Cost-Benefit Considerations; Stanley C. Wisniewski; published by *Public Budgeting and Finance*, Summer, 1991.

A Proposed Methodology for Comparing Costs of Government versus Contract Service Delivery; Lawrence Martin, School of Public Administration, Florida Atlantic University; Source and date of article unknown.

Creating a Government That Works Better and Costs Less, The Gore Report on Reinventing Government; Vice President Al Gore; September, 1993.

Chapter II, The Great "Cost" Debate; from a study conducted by Richard Franzke, Stoel, Rives, Boley, Jones & Greg, Law Firm; Portland, Oregon; 1979.

CORRESPONDENCE

Proposition A Contract Methodology; a memorandum from Mark H. Bloodgood, Auditor-Controller, County of Los Angeles; April 10, 1990.

Competition to Serve the Public Better; a memorandum from Frank Fairbanks, City Manager, Phoenix, Arizona; November 12, 1993.

Public/Private Competitive Proposal Process; a report memorandum from Jim Flanagan,

Letter to Vice President Al Gore re City of Phoenix sanitation pick-up service contracting; written by Arthur S. Ratcliffe, President, AFSCME Local 2384, Phoenix, Arizona; September, 1993.

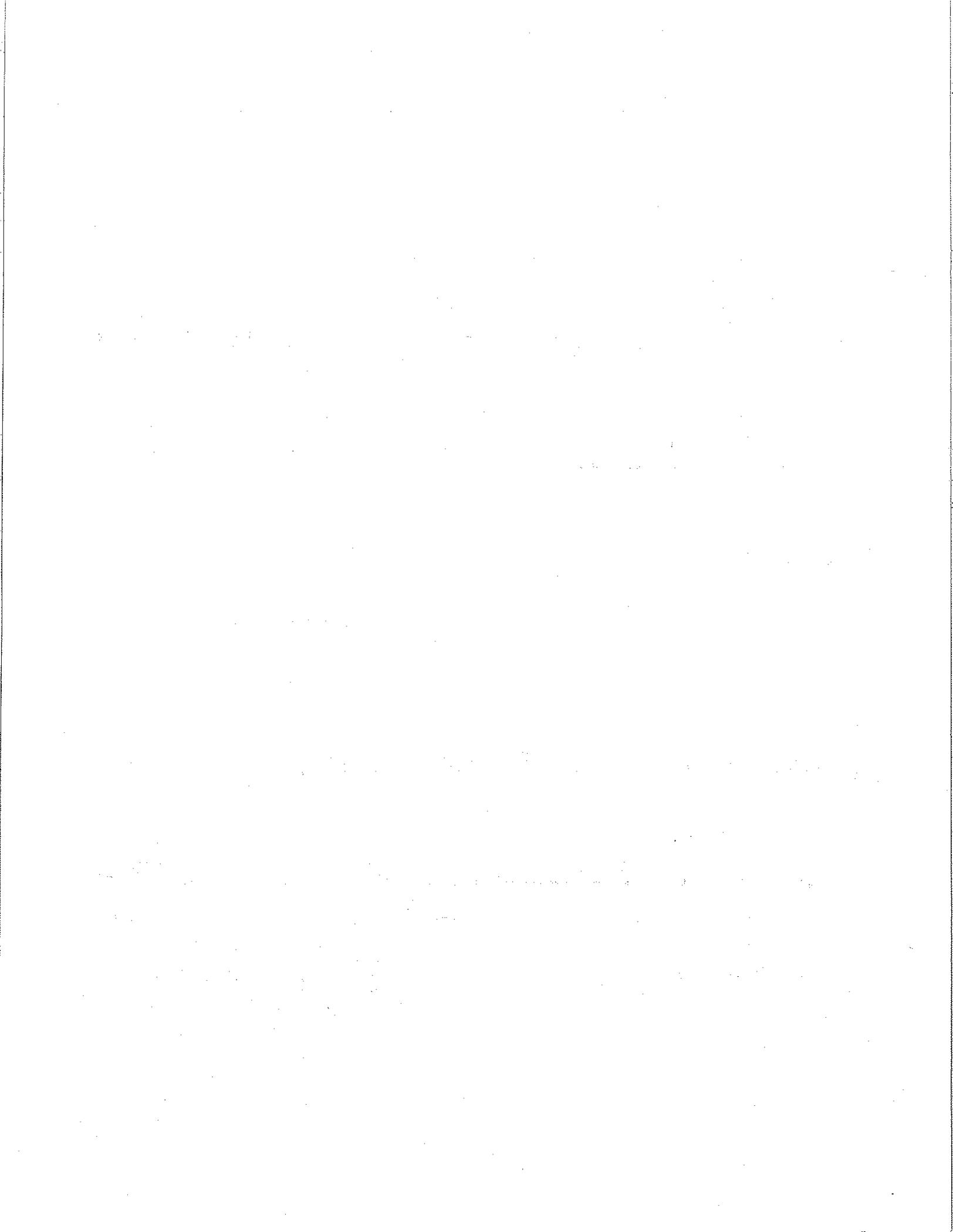
Resolution condemning practice of privatizing public service in Phoenix, Arizona; sponsored by AFSCME Council 97, Arizona State, AFL-CIO, and AFSCME International; June, 1993.

BOOKS

Reinventing Government; David Osborne & Ted Gaebler; Addison-Wesley Publishing Company; copyright 1992.

Restructuring the American Workplace: Implications for the Public Sector; LERC Monograph Series; authors Ray Marshal, Douglas Fraser, William Segura, Alice Dale and Jessie Bostelle; published by Labor Education and Research Center, University of Oregon; copyright 1992.

Appendix D
Independent Evaluation of Water
Bureau Cost Comparison
Methodology (Dr. Lawrence Martin)
December, 1994



December 29, 1994

Richard Tracy
Director of Audits
Office of the City Auditor
City of Portland, Oregon
1220 S. W. Fifth Avenue
Room 120
Portland, Oregon 97204

Dear Mr. Tracy:

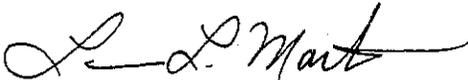
Attached please find the finalized version of my review of the "Interim Report on Cost Comparison Methodology." This review is presented in satisfaction of our contract for services No. 29639 dated December 8, 1994.

Two major conclusions drawn from my review are that the proposed cost comparison methodology appears to:

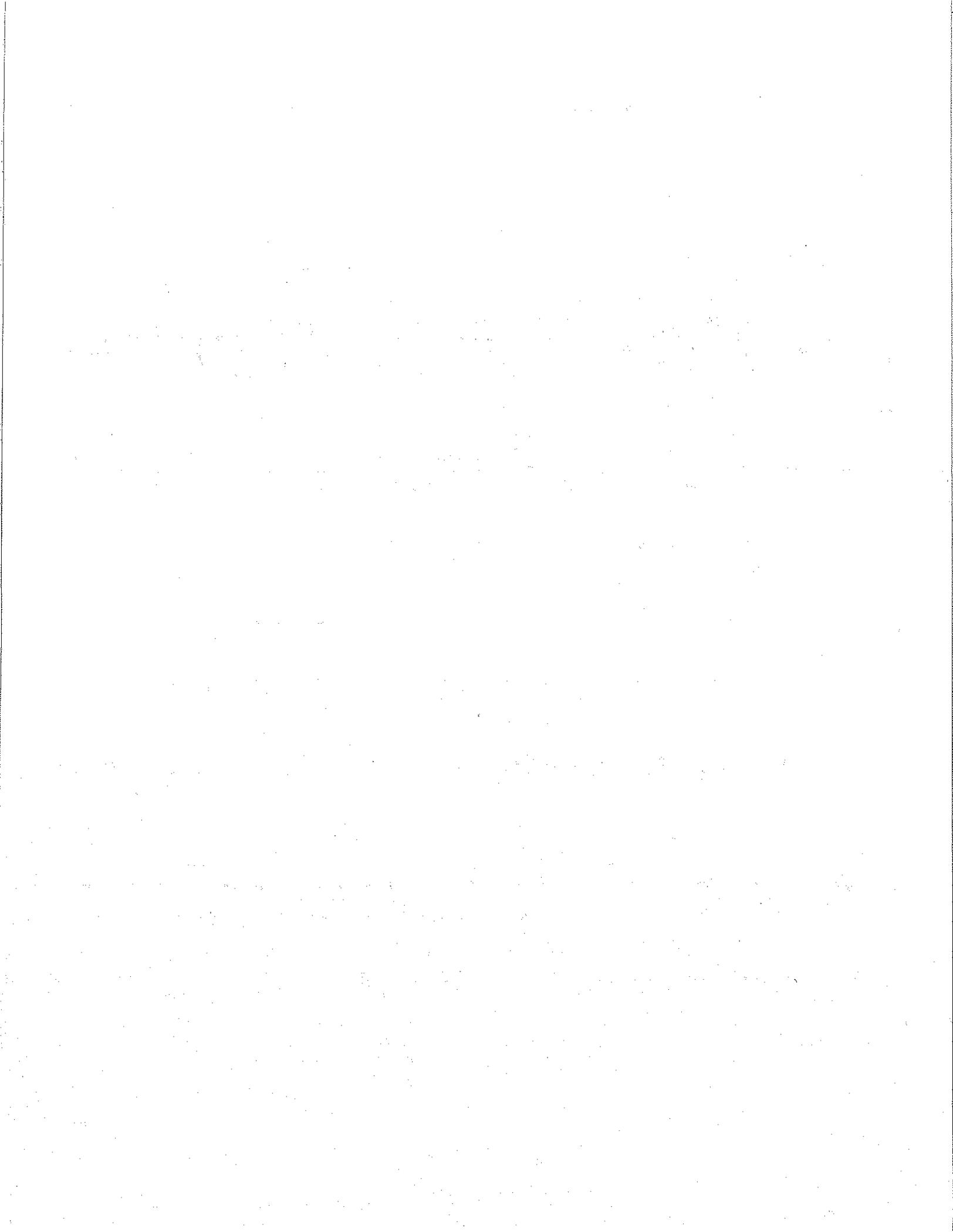
1. create a relatively "level playing field" for both contractors and city departments - - provided the concerns raised in Section I B of my review are resolved in such a fashion that contractor discretion is not unnecessarily constrained.

2. serve as a good starting point for the creation of a citywide policy or approach to public-private competition, but that more developmental work - as outlined in the body of my review - still needs to be accomplished.

Sincerely,



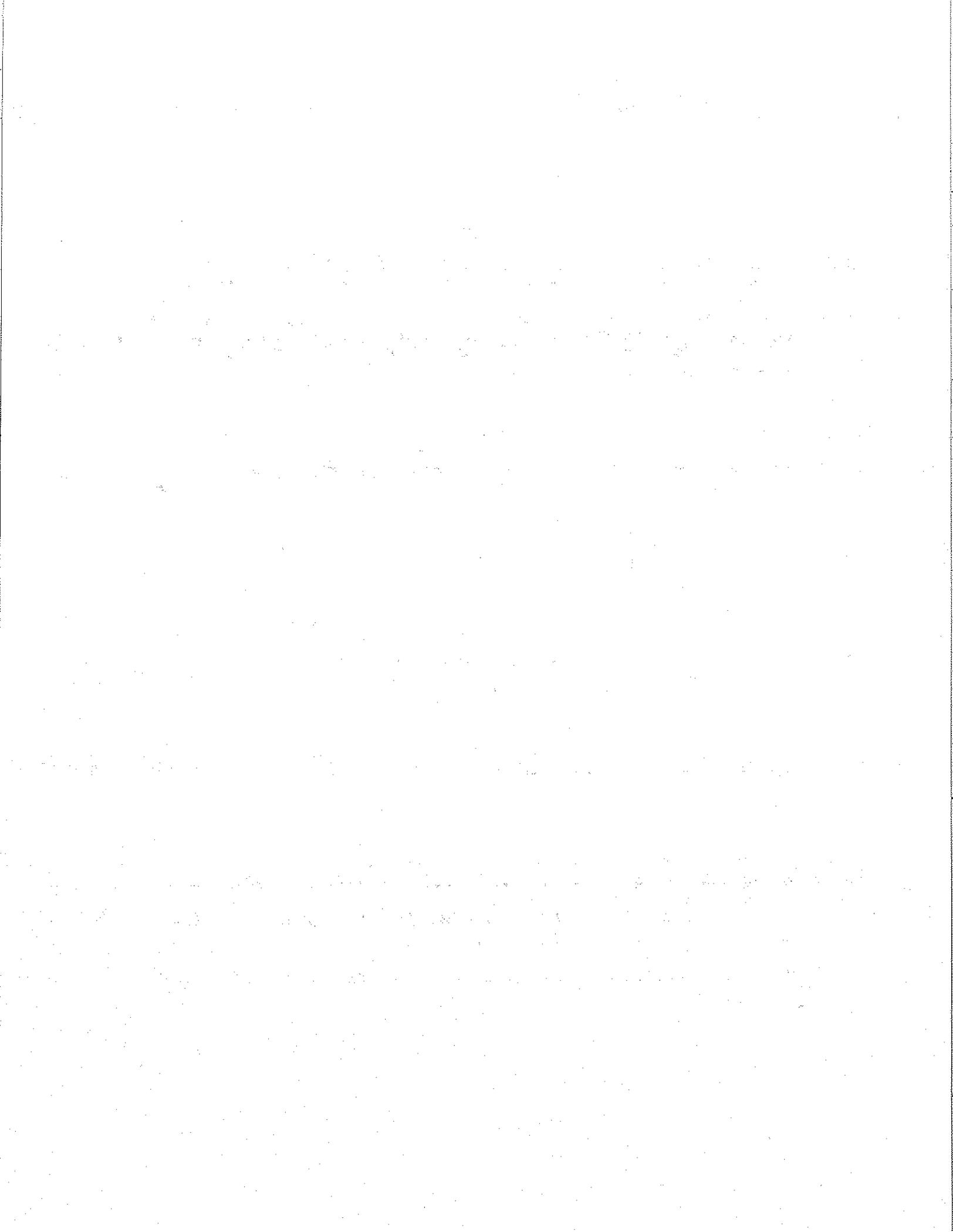
Lawrence L. Martin, PhD
Associate Professor



**REVIEW OF
INTERIM REPORT ON
COST COMPARISON
METHODOLOGY
FOR THE OFFICE OF THE
CITY AUDITOR
PORTLAND, OREGON**

**Prepared by Lawrence L. Martin, PhD, Associate Professor,
School of Social Work, Columbia University, 622 W. 113 Street,
New York, NY 10025. Tel: (212) 854-2735, Fax: (212) 854-2975**

December 29, 1994



INTRODUCTION

This review is divided into three sections.

SECTION I - SCOPE OF WORK COMMENTS

This section addresses the questions posed in the contract scope of work dealing with the cost comparison methodology:

- o reasonableness,
- o soundness,
- o thoroughness and comprehensiveness,
- o fairness and balance with respect to public employees,
- o practicability (ability to replicate citywide),
- o comparability (to other cities)
- o potential weakness,
- o suggested improvements, and
- o recommendations for adoption citywide.

Since many of these topics overlap, a need exists for an organizing theme. The theme selected is the generally recognized components of a cost comparison methodology as identified by Martin (1992, 1993a, 1993d):

- A. the approach to determining in-house costs,
- B. the approach to determining contractor costs,
- C. the approach to determining contract administration costs,
- D. the approach to determining transition (one-time conversion) costs,

E. the approach to determining the number of time periods over which the cost comparison analysis is to be conducted.

In addition to the above, two additional issues, as required by the scope of work, are also addressed:

F. an overall assessment of the extent to which the proposed cost comparison methodology creates a "level playing field" for both contractors and city departments, and

G. an overall assessment of the practicability (feasibility) of applying the proposed cost comparison methodology to other public-private competitions and other city departments.

SECTION II - GENERAL COMMENTS

This section addresses the issues of:

A. the state of the art in developing cost comparison methodologies,

B. the consideration of technical (non-cost) factors in deciding to use public-private competition, and

C. the need for policies and procedures governing the actual conduct (process) of public-private competitions.

SECTION III - REFERENCES

This section contains a list of the references and sources used in the preparation of this review. The reviewer consulted numerous bibliographical sources dealing with:

- o public-private competition, and
- o making cost comparisons between in-house and contract service delivery.

The reviewer also conducted telephone interviews with officials of the following municipal governments:

- o the City of Phoenix, Arizona,
- o the City of Indianapolis, Indiana,
- o the City of Philadelphia, Pennsylvania, and
- o The City of Houston, Texas.

The City of Phoenix, Arizona is a recognized national leader in the area of public-private competition. The cities of Indianapolis, Indiana and Philadelphia, Pennsylvania currently have two of the most aggressive public-private competition programs in the country. The City of Houston, Texas is currently involved in an effort to develop "best practices" policies and procedures prior to launching a public-private competition program of its own.

SECTION I - SCOPE OF WORK COMMENTS

A. The Approach to Determining In-House Costs

1. Conclusion

The recommendation of the "Interim Report on Cost Comparison Methodology" to use the incremental costs approach in determining in-house costs for public-private competitions is sound, reasonable, and justified on both theoretical as well as practical grounds.

2. Discussion

The major issue to be decided in determining in-house costs is whether to use the fully allocated costs approach or the incremental costs approach. The "Interim Report on Cost Comparison Methodology" recommends that the determination of in-house bids be based on the incremental costs approach. Incremental costs, also referred to "avoidable costs" and "differential costs," form the basis of the generally recommended managerial accounting approach (Anthony and Young, 1994; Garrison, 1991) to conducting a "make or buy" study, the private sector functional equivalent to public-private competition. The incremental costs approach is also recommended by government procurement texts (e. g., Dobler, Burt, and Lee, 1990; Harney, 1992) in discussing services contracting. Kelley (1984), writing on behalf of the Government Finance Officers Association, also recommends the use of the incremental costs approach as does this reviewer (Martin, 1992, 1993a, 1993d). The City of Phoenix

(undated) uses the incremental costs approach as does the Texas State Auditor's Office (1994).

The use of the incremental costs approach actually works to tip the "level playing field" slightly to the advantage of city departments because some indirect support (overhead) is always provided to an in-house operation even if indirect costs are not charged to it. Conversely, use of the fully allocated costs approach actually works to tip the "level playing field" slightly to the advantage of contractors because it somewhat overstates the true cost of in-house service delivery.

3. Recommendation

The approach to determining in-house costs contained in the "Interim Report on Cost Comparison Methodology" should be viewed as appropriate and suitable as an element of a citywide policy governing public-private competitions.

B. The Approach to Determining Contractor Costs

1. Conclusion

Some of the wording used to describe how contractor costs will/should be determined is unclear and subject to alternative interpretations.

2. Discussion

Contractor costs are simply the total costs a contractor proposes to charge for the service or activity as stated in its bid or proposal (Martin, 1992, 1993a, 1993d). Nothing more need be said about contractor costs in the "Interim Report on Cost Comparison Methodology." In several instances, the "Interim Report on Cost Comparison Methodology" deals with particular cost

elements of contractors' bids by including phrases to the effect that they are to be included as direct costs. For example, on page 18, in a section dealing with employee benefits, the following wording appears: "Contractor Bid - Included in all estimated direct cost." The intent of the wording is unclear, subject to alternative interpretations, and could create policy or procedural problems later on. Does the phrase mean that the fringe benefits a contractor intends to pay employees who will work under a city contract are assumed to be included in the contractor's bid, or does the phrase mean that a contractor must include all such employee fringe benefits in its bid? The distinction is not trivial.

If the intent of the passage quoted above, and others like it in the "Interim Report on Cost Comparison Methodology," is simply to point out that all such costs are assumed to be part of a contractor's bid, the wording is unnecessary in this reviewer's opinion. If, however, the intent is to require that the costs of all benefits paid by a contractor to employees working on a city contract must be included in the contractor's bid, this action represents "meddling" in what should be the exclusive domain of the contractor. Such a requirement would significantly tip the "level playing field" to the advantage of city departments. Section I F below discusses the potential cumulative effect that individual discretionary costing decisions can have on the creation and maintenance of a "level playing field."

The costs that comprise a contractor's bid are solely a matter for the contractor to determine, provided of course that

we are talking about a "responsible" contractor that is complying with all relevant laws, statutes, ordinances, and regulations.

If, for example, market conditions are such that a contractor would rather "eat" part or all of the fringe benefits to be paid to its employees who will work under a city contract in order to be more competitive and to submit a lower cost bid, this should be the contractor's prerogative. A cost comparison methodology should not be constructed in such a way that it restricts the discretion of contractors.

3. Recommendation

The Water Bureau Cost Committee should clarify all wording in the "Interim Cost Comparison Methodology," as well as the intent behind the wording, concerning costs that are to be included in the determination of contractor costs.

C. The Approach To Determining Contract Administration Costs

1. Conclusion

The approach to determining contract administration costs described in the "Interim Report on Cost Comparison Methodology" appears reasonable and defensible and is in keeping with the practices of many other governments.

2. Discussion

No generally accepted approach to determining contract administration costs exists. Some governmental units like Los Angeles County (Rehfuss, 1989) and the City of Phoenix, Arizona (undated) do not include any consideration of contract administration costs. These governmental entities believe that supervision costs are a "wash" regardless of whether the service

is provided in-house or via contract. On the other hand, the federal Office of Management and Budget (OMB, 1979), Kelly (1984) writing on behalf of the Government Finance Officers Association, the Texas State Auditor's Office (1994), the City of Philadelphia, Pennsylvania (Morrison), and this reviewer (Martin, 1992, 1993a, 1993d) all believe contract administration costs are relevant and should be included in computing the total cost of contract service delivery.

The "Interim Report on Cost Comparison Methodology" proposes to add such contract administration costs as processing change orders (p. 16) and superintendence costs (p. 20) to the cost of contract service delivery on an estimated incremental costs basis. This approach is both reasonable and defensible. It should be noted, however, that a decision to include contract administration costs in calculating the total costs of contract service does work to slightly tip the "level playing field" to the advantage of city departments because inclusion makes contract service delivery more expensive. Section I F below discusses the potential cumulative effect that individual discretionary costing decisions can have on the creation and maintenance of a "level playing field."

3. Recommendation

The approach to determining contract administration costs outlined in the "Interim Report on Cost Comparison Methodology" should be viewed as appropriate and suitable as an element of a citywide policy governing public-private competitions.

D. The Approach to Determining Transition Costs

1. Conclusion

The absence of some proposed policy governing when and how to compute transition costs is a deficiency if the "Interim Report on Cost Comparison Methodology" is to be considered for citywide adoption.

2. Discussion

Transition costs represent those costs a governmental entity may incur in switching from in-house to contract service delivery. Since the work targeted for public-private competition by the Water Bureau Cost Committee is new work of a project nature, transition costs do not appear to be an issue. The absence of a policy statement on the treatment of transition costs in the "Interim Report on Cost Comparison Methodology," does, however, affect its ability to be replicated in other service areas and by other city departments.

An example of how transition costs can affect cost comparison studies is provided by the City of Ann Arbor, Michigan and involved a public-private competition for solid waste collection (Martin, 1993b). A private contractor submitted a bid lower than that of the in-house department. The local public employee union challenged the bid process because transition costs had not been included in determining the total cost of contract service delivery. The transition costs involved in this instance were the estimated costs of dealing with any displaced city employees if the service were to be contracted. The City of Ann Arbor concurred that transition costs should be included in

the analysis, but lacked any policy or procedure on how to deal with or compute them. In the end the city made a decision to keep the service in-house.

The City of Cincinnati, Ohio (1985) and Martin (1992, 1993a, 1993d) discuss and provide suggestions on how to deal with and compute transition costs.

3. Recommendation

A policy statement on the treatment and computation of transition costs should be included if the "Interim Report on Cost Comparison Methodology" is to serve as basis for a broader citywide policy on public-private competitions.

E. The Approach to Determining Comparison Time Periods

1. Conclusion

The length of time over which a cost comparison is made can affect the ultimate determination of which method (in-house or contract service delivery) is less costly.

2. Discussion

Because of the nature of the activity targeted in the "Interim Report on Cost Comparison Methodology," the issue of the number of time periods to be considered in the analysis appears moot. In attempting to apply this methodology to larger projects or to other city departments, the issue of time periods may be an important consideration. Where contract service delivery would require large start up costs on the part of contractors, a one year cost comparison may lead to a decision to keep the service in-house. If the analysis is carried out over a longer time period (e. g., two or three years), the cost comparison

might well turn in favor of contract service delivery since start up costs can be spread out over a longer time.

The City of Cincinnati, Ohio (1985) as well as this reviewer (Martin, 1992, 1993a, 1993d) recommend carrying out the cost analysis for a period of two to three years for services or activities that require large start up costs on the part of contractors.

3. Recommendation

A policy statement on comparison time periods should be included if the "Interim Report on Cost Comparison Methodology" is to serve as a basis for a broader citywide policy on public-private competitions.

F. Overall Assessment of "Level Playing Field"

1. Conclusion

The proposed "Interim Report on Cost Comparison Methodology" appears to provide a "level playing field" for both contractors and city departments - - provided the concerns raised in Section I B of this review are resolved in such a fashion that contractor discretion is not unnecessarily constrained.

2. Discussion

The recommendations contained in the "Interim Report on Cost Comparison Methodology" to: (1) use the incremental costs approach as the basis for computing in-house costs and (2) to include contract administration in the costs of contract service delivery - while defensible on theoretical and well as practical grounds - nevertheless slightly tilts the "level playing field" to the advantage of city departments. If, for example, the

recommendation had been to use the fully allocated costs approach to compute in-house costs and not to include contract administration costs in computing the total costs of contract service delivery, then the "level playing field" would have been slightly tilted in favor of contractors.

What one looks for in determining a "level playing field" is a pattern in how the judgmental costing decisions are handled. A single judgmental costing decision will only tip the "level playing field" slightly in one direction or another. But a series of judgmental costing decisions that disproportionately favor contractors over in-house departments, or vice versa, can seriously tip the "level playing field." No evidence of a pattern is present in the "Interim Report on Cost Comparison Methodology," provided the concerns expressed in this report (Section I B) dealing with the determination of contractor costs are resolved in favor of contractor discretion. If, however, the intent of the "Interim Report on Cost Comparison Methodology" is to constrain the ability of contractors to determine their own costs, or to force them to raise their costs to match those of in-house departments, than a pattern might well be said to exist in that:

- o the use of the incremental costs approach to determine the cost of in-house service delivery tends to favor in-house departments,

- o the inclusion of contract administration costs in determining the total costs of contract service delivery tends to favor in-house departments, and

o constraining contractors' discretion in determining their own costs definitely tends to favor in-house departments.

3. Recommendation

None at this time.

G. Overall Assessment of the Methodology As City-Wide Policy Governing Public-Private Competitions

1. Conclusion

The "Interim Report on Cost Comparison Methodology" represents a good starting point for a citywide policy governing public-private competitions, but needs more developmental work.

2. Discussion

The failure of the "Interim Report on Cost Comparison Methodology" to deal with the issues of transition costs and comparison time periods significantly affects its practicability (ability to be replicated citywide). Additionally, the "Interim Report on Cost Comparison Methodology" contains considerable specificity relative to construction type activities that are probably not relevant to many other city departments and other city services. For example, Issue #12 (see page 23) dealing with job site material deliveries/storeroom costs and other such issues may not be relevant to non-construction type public-private competitions.

3. Recommendation

The "Interim Report on Cost Comparison Methodology" needs to be revised to make it more applicable to other city departments and city services. Specifically, the "Interim Report on Cost Comparison Methodology" should be modified to:

- o include a policy statement on transition costs,
- o include a policy statement on comparison time periods,
- o delete references to construction type activities.

SECTION II - GENERAL COMMENTS

This section deals with three issues:

- o the state of the art in developing cost comparison methodologies,
- o the consideration of technical (non-cost) factors in deciding to use public-private competition, and
- o policies and procedures governing the conduct (process) of public-private competitions.

A. The State of the Art

1. Conclusion

Public-private competition in general and cost comparison methodologies in specific are both still in their conceptual and developmental infancy.

2. Discussion

Developing and using a cost comparison methodology for public-private competition is necessary to insure a "level playing field" for both contractors and in-house departments. Attempting to become too specific and too prescriptive in developing a cost comparison methodology may, however, cause unintended problems later.

No major municipal government to the reviewer's knowledge has gone much beyond dealing with other than such basic issues as determining:

- o the cost basis of in-house service delivery (i. e., the fully allocated costs approach versus the incremental costs approach),

o how contract administration costs and transition (one-time conversion) costs will be treated and computed, and

o how many time periods (e. g. years) will be used in the cost analysis.

The City of Phoenix, Arizona with all its years of experience in conducting public-private competitions has not attempted to make in-house cost determinations an exact science. Phoenix's in-house cost analysis approach (Phoenix, undated) establishes policies and procedures, but leaves decisions concerning which costs should be treated as incremental or fixed (i. e., which costs are to be included or excluded in the analysis) to the professional judgment of accountants and auditors given the specific service or activity under consideration. The establishment of general policies and principles, but not hard and fast detailed rules, governing in-house cost finding methodologies is likewise the approach of Indianapolis, Indiana (Stitt, 1994). The fact that neither Phoenix nor Indianapolis - two benchmark cities when it comes to public-private competition - have attempted to develop detailed in-house cost finding methodologies may suggest that a "one size fits all" approach may not be desirable at this stage of development.

The only major unit of government to this reviewer's knowledge that has attempted to develop detailed in-house cost finding methodologies is the federal government. Under OMB Circular A-76, federal agencies were required to determine, with minimal margin for error, the exact cost of in-house service

delivery prior to making any efforts at privatization, contracting out, or public-private competition. The cost studies turned out in many instances to be time consuming and costly. One federal cost study actually took five (5) years to complete and cost between \$8 and \$10 million (Kettl, 1993, p. 56.)

3. Recommendation

A methodology for comparing the costs of in-house and contract service delivery should be based on general principles and policies and should refrain, at least at this time, from becoming too detailed and too prescriptive.

B. Technical Factors

1. Conclusion

Cost is only one factor, albeit an important one, in determining if and when a government service or activity should be targeted for public private competition.

2. Discussion

Factors other than cost that could affect a decision to engage in public-private competition might include: general market conditions, effect on public employees, service quality, liability issues, and others. The State of Colorado Auditor's Office (1989) has developed an excellent workbook and process for assessing both the cost and technical aspects of submitting a government service or activity to public-private competition. The Colorado approach has also been adopted by the State of Texas (1994) Auditor's Office. A slightly altered version of the Colorado approach - one that allows for the weighting of the various criteria - appears in Martin (1993c).

3. Recommendation

Policies should be formulated that cover not only costing issues, but also technical issues to be considered in targeting a government service or activity for public-private competition.

C. Policies & Processes Governing Public-Private Competition

1. Conclusion

Issues of equity, fairness, and "level playing field" can also arise do the actual conduct of a public-private competition itself.

2. Discussion

A well developed approach to public-private competition should include not only a cost comparison methodology and an approach to assessing technical (non-financial) factors, but policies and procedures governing how the actual public-private competition itself (the process) will be conducted. For example, who will prepare the in-house bid? Who will verify the in-house bid? Are in-house bids considered "public records?" If yes, does this mean that prospective contractors can demand to see an in-house bid? What happens (if anything) to an in-house department that wins a public-private competition, but whose actual costs ultimately exceed its bid? Decisions such as these should ideally be made before engaging in public-private competition in order to insure the fair and equitable treatment of both contractors and in-house departments.

Martin (1993b) provides case examples of "horror stories" where public-private competitions were unsuccessful due to the

absence of policies and procedures governing how the process itself was to be conducted. The absence of policies and procedures governing the conduct of public-private bidding can also lead to grievances, arbitrations and other litigious activities with both municipal employee unions and with contractors. An example is the City of Philadelphia, Pennsylvania which has yet to develop policies and procedures governing its public-private competition program. Virtually every public-private competition initiated by the City of Philadelphia over the last two years has resulted in some type of union action (Miller, 1994; Foley, 1994).

Another example of how the absence of policies and procedures dealing with the process can have unfortunate consequences for public-private competition is provided by the City of Redding, California. The City of Redding engaged in public-private competition for landscape maintenance services. The city was divided into 20 districts and the in-house department was the low bidder for nine districts. The city council rejected all in-house bids deciding - after the fact - that the in-house bids were to serve only as a "contingency plan" in case no private sector bids were received (Martin, 1993b).

The City of Phoenix, which has the longest municipal history with public-private competition, has developed what is probably the most comprehensive set of policies and procedures governing the actual conduct of the process (City of Phoenix, undated).

3. Recommendation

Policies and procedures should be developed governing how the actual process of public-private competitions will be handled. The City of Phoenix process would serve as a good model,

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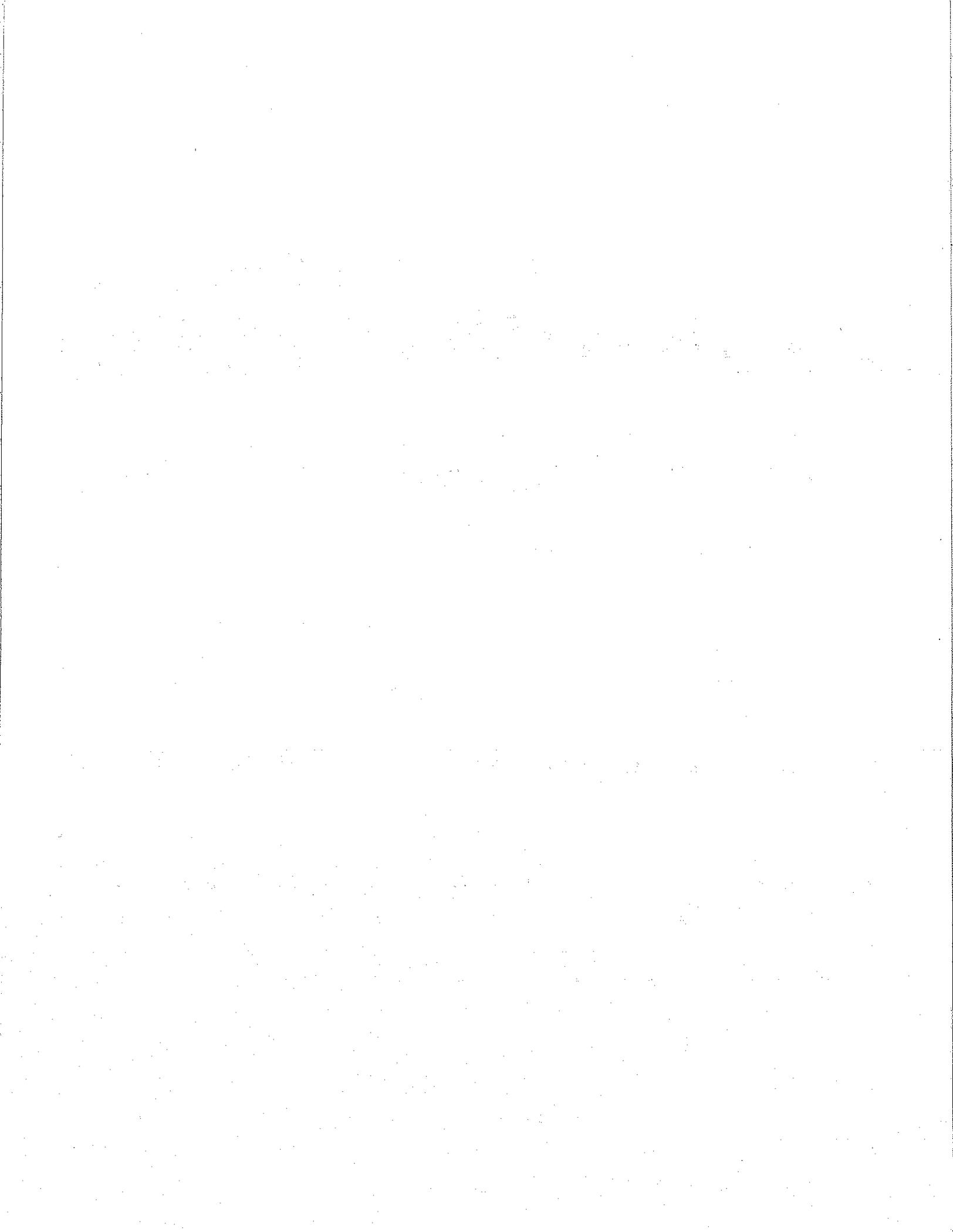
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Responses to the Audit



City of Portland
Vera Katz
Mayor

May 24, 1995

TO: City Auditor Barbara Clark

FROM: Mayor Vera Katz *pk*

SUBJECT: Response to Audit Report, *Competitive Contracting: Opportunities to Improve Service Delivery and Save Money*

I want to thank you and commend you for this excellent report on competitive contracting. "Competitive Contracting" is a fairly new term of art, but describes an important concept and philosophy: maximizing competition to gain the most efficient and effective municipal services, without making prior judgements about who provides a service. Competitive bidding as a philosophy and practice lets private vendors and city employees alike know that the best products and services are being sought at the best price, without prejudice towards the provider.

The six report recommendations are very sound and provide a good framework for the Council and the city bureau managers to pursue competitive contracting opportunities in a consistent and coordinated fashion. The only additional point I would note is, in preparing a cost comparison methodology for citywide application as described in the fifth recommendation, care should be taken to ensure the methodology is truly applicable to all situations. Bureau managers should not be placed in the position of having to "force a fit" between methodology guidelines and the realities of their particular programs.

This report will serve as a key resource for all city bureaus and I will strive to ensure the Council and our bureaus work quickly and actively to implement your recommendations.



CITY OF
PORTLAND, OREGON
BUREAU OF PURCHASES

Earl Blumenauer, Commissioner
Carlton Chayer
Purchasing Agent
1120 S.W. Fifth Avenue
Portland, Oregon 97204
(503) 823-6855
FAX (503) 823-6865

May 19, 1995

MEMORANDUM

TO: Barbara Clark, CPA
City Auditor

FROM: Carlton Chayer 
Purchasing Agent

SUBJECT: Competitive Contracting Final Draft

Thank you for the opportunity to respond to your final draft report on competitive contracting.

The Bureau of Purchases looks forward to participating in the development of an equitable methodology for bid comparison. Once the appropriate methodology is established, we will subject public and private bids to a fair and independent process of evaluation.

Competition serves the City well and is an excellent method of ensuring the City receives the lowest cost commensurate with quality requirements.

CC/jlm
36-95



WATER SERVICES PARTNERSHIP FOR IMPROVEMENT

PORTLAND WATER BUREAU



MEMORANDUM

May 23, 1995

**PARTICIPATING
MEMBERS:**

AFSCME LOCAL 189
LEONARD HARLOW,
PRESIDENT
SAM GILLISPIE,
STEWARD
TOM O'DEA,
BUSINESS AGENT

COPPEEA
REPRESENTATIVE
SHAWNA GRABER

IBEW, LOCAL 48
BUSINESS AGENT
GRANT ZADOW

OPERATING ENGINEERS
LOCAL 701
BUSINESS AGENT
GEORGE ROBINS

MAYOR'S OFFICE LIAISON
JESSICA MARLITT

PUBLIC UTILITIES
COMMISSIONER'S LIAISON
JEFF GOLDEN

WATER BUREAU
MANAGEMENT TEAM
MIKE ROSENBERGER,
ADMINISTRATOR
MORT ANOUSHIRAVANI
MIKE BURR
SHEILA MAIO
ROSEMARY MENARD
BOB RIECK
FRED WHITFIELD

STAFF:
TRUDY COOPER
PHYLLIS RAY

TO: Barbara Clark, CPA
City Auditor

FROM: Mike Rosenberger *MR*
Water Services Partnership for Improvement

SUBJECT: Comments on the Final Draft of the City Auditor's Report on Competitive Contracting

The Water Bureau has reviewed both the Preliminary and Final Draft of the City Auditor's Report on Competitive Contracting and supports its recommendations. We would like to reiterate our previous concern that any process to assess the feasibility of contracting city services, such as Appendix B of the Report, be a neutral process that does not presume either contracting in or out to be a preferred alternative.

The Water Bureau will officially enter into its first major private/public competition in the next week. On June 1, 1995, the Bureau will tender its bid to the city's Purchasing Agent, along with private contractors, for a water mains construction project with a value estimated to be approximately \$500,000. In addition, the Bureau and its labor unions have made a commitment to Commissioner Lindberg to evaluate Bureau operations over the next seven months to determine which functions should be subjected to a bid process.

Finally, the Water Bureau and its labor unions are dedicated to providing the public with the most efficient and effective water services possible. We believe that public/private sector competition is an important and effective tool to help achieve that end.

cc: Commissioner Lindberg
WSPI Members
The Water Bureau Cost Committee
The Water Bureau Bid Group

