

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AUTHORIZING THE) RESOLUTION NO. 97- 2544
RELEASE OF A REQUEST FOR BIDS FOR THE)
INSTALLATION OF A REPLACEMENT FIRE) Introduced by Mike Burton
SPRINKLER SYSTEM FOR METRO SOUTH STATION) Executive Officer
)

WHEREAS, The project is necessary to protect the Metro South Station and the workers and users thereof for the reasons described in the accompanying staff report; and

WHEREAS, The project is contained in Metro's Adopted Capital Improvement Plan; and

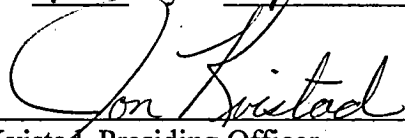
WHEREAS, The design of the replacement system is complete as contained in the Request for Bids attached as Exhibit "A"; and

WHEREAS, The resolution was submitted to the Executive Officer for consideration and was forwarded to the Council for approval; now therefore,

BE IT RESOLVED,

1. That the Metro Council authorizes the Executive Officer to release RFB #97-19-REM, attached as Exhibit "A".
2. That the Metro Council, pursuant to Section 2.04.026(b) of the Metro Code, authorizes the Executive Officer to execute a contract with the most responsible, responsive bidder with the most advantageous bid in accordance with the requirements of the Metro Code.

ADOPTED by the Metro Council this 11th day of September, 1997.



Jon Kvistad, Presiding Officer

Approved as to Form:


Daniel B. Cooper, General Counsel
PIH:clk
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Exhibit "A"

REQUEST FOR BIDS

FOR

METRO SOUTH TRANSFER STATION

FIRE SPRINKLER SYSTEM REPLACEMENT

RFB #97B—19—REM

August 1997

Metro
Regional Environmental Management Department
600 N.E. Grand Avenue
Portland, OR 97232-2736

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**SECTION 00030
INVITATION TO BID**

Metro is soliciting bids for the replacement of the fire sprinkler system at Metro South Transfer Station located in Oregon City, OR (RFB #97B-19-REM.) Sealed Bids must be delivered to Metro, Regional Environmental Management Department, 600 N.E. Grand Avenue, Portland, OR 97232 to the attention of Pete Hillmann, Project Manager, no later than 3:00 p.m., Friday, September 19, 1997. At that time, the Bids will be opened and publicly read aloud in Conference Room 270 located in the Metro Regional Center.

The Work contemplated consists of the removal of the existing black iron dry pipe fire sprinkler system and replacement with a new galvanized (inside and out) pipe system at the 40,300 square feet Metro South Transfer Station in Oregon City.

Drawings and Specifications may be examined at the Regional Environmental Management Department in the Metro Regional Center. Copies of the Bidding Documents may be obtained at Metro Regional Environmental Management Department or by calling 797-1650.

Each Bid must be submitted on the prescribed form and accompanied by a certified check or cashier's check or Bid Bond executed on the prescribed form, payable to Metro in the amount of ten percent (10%) of the total bid amount. The Bid and bid security should be delivered in a sealed envelope marked "Metro South Transfer Station Replacement Sprinkler system (RFB #97B-19-REM)", Attention: Pete Hillmann.

The successful Bidder will be required to furnish the necessary additional Bonds for the faithful performance of the Contract and for the payment of all persons supplying labor and materials as prescribed in the Contract Documents.

Before a contract is awarded, Metro may conduct such additional investigations as are necessary to determine whether a Bidder is qualified. Upon request, the Bidder shall promptly submit such additional information as deemed necessary by Metro to evaluate the Bidder's qualifications.

Bidders shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document.

This is a public works project. The contractor and all subcontractors and suppliers, shall be required to comply with ORS 279.350 through 279.354 and ensure that all workers are paid not less than, and in accordance with, the Prevailing Wages published by the Oregon Labor of Industries. In order to insure compliance of prevailing wage requirements, under Chapter 279, Metro will require that all payrolls be submitted on a schedule to be determined by Metro.

The contractor is required to pay a fee equal to one-tenth of one percent ((0.1 percent) of the price of the contract, but not less than \$100 nor more than \$5,000, under ORS 279.352 (2) and section 5 (1), ch 594, 1995 Oregon Laws. The fee shall be paid on or before the first progress payment or 60 days from the date work first began on the contract, whichever comes first. The fee is payable to the Bureau of Labor and Industries at the following address:

Bureau of Labor and Industries
Wage and Hour Division
Prevailing Wage Unit
800 NE Oregon Street, #32
Portland, OR 97232

Each Bid must contain a statement as to whether the Bidder is a resident bidder, as defined in ORS 279.029.

Bidders and Subcontractors must be registered with the Oregon Construction Contractor's Board pursuant to ORS 701.035-90.

Bidders must comply with Metro's Minority and Women-Owned Business Enterprise Program. The purpose of the program is to establish and implement a program to encourage the utilization by Metro of minority and women-owned businesses, to the greatest extent permitted by law, by creating for such businesses the maximum possible opportunity to compete for and participate in locally-funded Metro contracting activities. All Bidders must certify and document compliance with the Minority and Women-Owned Business Enterprise Program. Failure to complete and submit the Program Compliance Forms, Utilization Forms, and adequately document good faith efforts will constitute a non-responsive Bid. See "Instructions to Bidders" for references to applicable procedures and further details concerning this program. Any questions regarding MBE/WBE requirements should be addressed to the Metro MBE/WBE Program Advocate, Ms. Berthé Carroll at (503) 797-1714.

The Economic Feasible Units (EFU's) identified for the MBE/WBE program by Metro for this project are; demolition of fire sprinkler system.

A Pre-Bid Conference for prospective Bidders will be conducted at 10:00 a.m., on September 4, 1997, in the Control Room at Metro South Transfer Station, 2001 Washington Street, Oregon City, OR 97045. **Attendance at this meeting is mandatory for all potential prime bidders to comply with Metro's Minority and Women-Owned Business Enterprise Program.** A site visit is planned following the meetings.

Metro reserves the right to reject all Bids or any Bids not conforming to the intent and purpose of the Contract Documents, to reject for good cause any and all Bids upon a finding of Metro that it is in the public interest to do so or to waive any informality or irregularity in any Bid or Bids. Metro further reserves the right to award the Contract at any time within sixty (60) days following the Bid opening date.

For information concerning the proposed work, or to make an appointment to visit the site of the proposed work, contact Pete Hillmann, Project Manager, , at (503)797-1696.

**SECTION 00110
INSTRUCTIONS TO BIDDERS**

1. DESCRIPTION OF WORK

The Work contemplated consists of removal and replacement of the dry pipe fire sprinkler system at the Metro South Transfer Station in Oregon City, OR. Work includes the removal of the existing black iron dry pipe fire sprinkler system and replacement with a new galvanized (inside and out) pipe system

2. DEFINITIONS

Except as otherwise specifically provided herein, all words and phrases defined in the General Conditions shall have the same meaning and intent in these Instructions to Bidders. Bidders should refer to those definitions as they read these Instructions.

3. DOCUMENT INTERPRETATION

The Contract Documents are intended to be complementary and to provide all details reasonably required for the execution of the proposed Work. Any person contemplating the submission of a Bid shall have thoroughly examined all of the various parts of these Contract Documents. If the Bidder has any doubt as to the meaning or the intent of the Contract Documents or finds any inconsistency or discrepancy within the Contract Documents, the Bidder must provide and Metro must receive a written request for interpretation, **at least seven (7) working days prior to Bid opening**. Likewise, the Bidder may request substitutions for materials, processes or equipment as described in the Contract Documents. Such requests for interpretation or substitution shall be mailed or delivered to Metro Regional Environmental Management Department, 600 N.E. Grand Avenue, Portland, OR 97232, to the attention of Pete Hillma,, Project Manager. Any interpretations or changes in the Contract Documents will be made only in writing, in the form of Addenda to the Contract Documents which will be furnished to all Bidders receiving a set of the Bidding Documents and which shall be binding upon all Bidders as if set forth in the original Contract Documents. Bidders shall indicate receipt of all Addenda on their Bids. Metro will not be responsible for any other explanation or interpretation of the Bidding Documents. Bidders shall have no right to rely on any oral interpretation or instructions made by Metro or the Architect/Engineer, unless it is also committed to writing and issued as an Addendum.

In the absence of any pre-bid request for clarification, or any interpretation of the Contract Documents, as outlined above, any subsequent interpretation shall be made by Metro, and shall be final and binding on the successful Bidder, and Metro shall pay no extra costs or expenses to such Bidder resulting from such interpretation.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE AND COMPLIANCE WITH LAWS

Before submitting a Bid, Bidders shall fully examine and read the Contract Documents; visit the site of the proposed Work, and examine the Site and the surrounding areas; and fully inform themselves of all conditions on, in, at and around the Site, the surrounding areas, and any work that may have been done thereon. The Bidder acknowledges by the submission of its Bid that it understands the nature and location of the Work, the general and local conditions, conditions of the Site, availability of labor, electric power, water, and the kind of surface materials on the Site, the kind of equipment needed, and all

other matters which may in any way affect the Work or the cost, including utilities not identified in the Contract Documents.

Information derived from inspection of the Contract Documents and any specific sections thereof showing location of utilities and structures will not in any way relieve the Contractor from any risk, or from properly examining the Site and making such additional investigations as it may elect, or from properly fulfilling all the terms of the Contract Documents. Investigation of Site and soil conditions have been conducted for Metro. Bidders may inspect the records of such investigations at locations specified in Section 00200.

Metro does not in any way warrant the accuracy of any information in such investigations and Bidders shall have no right to rely on the information contained in such records or investigations. Furthermore, if the Bidder determines that additional investigations of site and/or soil conditions are necessary or desirable, Bidder shall cause such additional investigations to be made, at Bidder's expense, prior to submitting a Bid and subject to coordination with Metro.

Any failure of a Bidder to acquaint itself with all of the available information concerning conditions or having such additional investigations of Site and soil conditions conducted, as may be necessary, will not relieve it from responsibility for estimating properly the difficulties or cost of the Work and the Bidder shall, regardless of such failure, be bound to its Bid.

Each Bidder shall inform itself of, and the Bidder awarded a Contract shall comply with, federal, state, and local laws, codes, statutes, ordinances, and regulations, as amended, relative to the execution of the Work. Each Bidder shall prepare its Bid in accordance with, and all Bid prices shall assume compliance with, such laws, codes, statutes, ordinances and regulations. This requirement includes, but is not limited to, applicable regulations concerning minimum wage rates, prevailing wage rates, nondiscrimination in the employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural resources, fire protection, burning and non burning requirements, permits, fees, and similar subjects.

If any portion of the Contract Documents does not conform to such laws, codes, statutes, ordinances or regulations as amended, the Bidder shall so advise Metro in writing at least seven (7) days before Bids are due. If it is shown that the Contractor, as Bidder, knew or should have known that any portion of the Contract Documents does not conform to such laws, codes, statutes, ordinances or regulations and had failed to so advise Metro, it shall be liable for costs of making any deviation(s) required for compliance with such laws, codes, statutes, ordinances or regulations.

Each Bidder, in submitting its Bid, certifies that the Bidder is eligible to bid on and to receive a contract for a public work, as set forth in ORS 279.361 and agrees, if awarded the Contract, that each of its Subcontractors will be required to certify such compliance, and certification will be filed with Metro prior to such Subcontractor commencing any work under the Contract. A copy of "PREVAILING WAGE RATES for Public Works Contracts in Oregon" is enclosed herein and applies to the work performed under the Contract.

5. MINORITY AND WOMEN-OWNED BUSINESS PROGRAM COMPLIANCE

Minority and Women Business Enterprise Program

In the event that any subcontracts are to be utilized in the performance of this agreement, the Bidder's/Proposer's attention is directed to Metro Code Section 2.04.100 and 200.

The following program information is intended to succinctly outline the prime action steps required of all Bidders/Proposers. It is not a substitute for and shall not be construed as a complete recital of all issues, concerns, and program instructions contained within that ordinance. Therefore, all Bidders/Proposers are specifically advised to consult the original document for definition of the specific terminology contained herein and complete insight into all program requirements.

Copies of that document are available from the Contracts Services Division of the Department of General Services, Metro Regional Center, 600 NE Grand Avenue, Portland, Or 97232-2736 or call (503) 797-1717.

Metro Extends Equal Opportunity to all persons and specifically encourages MBE/WBEs to access and participate in this and all Metro projects, programs and services.

Metro Prohibits Discrimination against any person or firm based upon race, color, national origin, sex, sexual orientation, age, religion, physical handicap, political affiliation or marital status.

Metro Specifically Requires all Bidders/Proposers to demonstrate and document good faith efforts reasonably expected to produce and maximize the opportunities for subcontractor and supplier involvement by MBE/WBEs.

For purposes of this program, performing, documenting, and certifying compliance with all of the actions outlined on the attached forms shall constitute a rebuttable presumption that the Bidder/Proposer has made the good faith efforts required by this program.

The attached Compliance Forms are the basis for recording and documenting the completion of the above-listed actions. Completion of the Compliance Form and Documentation of all six (6) actions outlined therein is mandatory. Failure to complete and submit the forms and all required support documentation at the time of Bid opening/Proposal submission and all required documentation subsequently requested, will result in rejection of the Bid/Proposal as nonresponsive to Metro's procurement requirements.

By signing the forms, the Bidder/Proposer thereby certifies that it has not discriminated against MBE/WBEs in obtaining any subcontracts for this project, and that its documented good faith efforts were reasonably expected to result in participation by those enterprises in this project.

Conversely, failure to provide such documentation by the Bid or submission deadline shall create a rebuttable presumption that the respondent has not made a good faith effort as required by the program.

Furthermore, Metro reserves the right, at all times during the subsequent course of any awarded contract, to monitor compliance with the terms of this program, require additional written documentation or proof of good faith efforts, and depend upon the Contractor's immediate compliance.

6. PREPARATION OF BIDS

All blank spaces in the Bid Forms must be completed either by typing or in ink. Amounts shall be shown in both words and figures. Any Bids which do not include prices on all Bid Items will be considered non-responsive and will be rejected. No changes shall be made in the phraseology of the forms.

Metro reserves the right to declare any bid non-responsive and reject it without further consideration if it is deemed to contain errors, omissions, erasures, alterations, additions, deletions, unbalanced pricing, is conditioned by the Bidder, or in any manner, extent or way fails to conform to each and every specific requirement(s) of these Contract Documents.

Each Bid shall give the full business address of the Bidder and be signed by it with its legal signature.

- a. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership authorized to sign contracts on behalf of the partnership, or by an authorized representative, followed by the printed name and title of the person signing.
- b. Bids by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and designation of the president, secretary or other person authorized to bind it in the matter. When requested by Metro, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.
- c. If a Bid is submitted by a joint venture, a certified copy of the legal agreement constituting the joint venture shall be attached to the Bid.

The name of each person signing shall also be typed or printed below the signature. Signatures of all individuals must be in longhand.

Failure to fulfill any of the above requirements may render the Bid non-responsive.

7. SUBMISSION OF BIDS

All bids must be submitted not later than the time prescribed, at the place, and in the manner set forth in the INVITATION TO BID. Bids must be made on the forms provided under separate cover as the BID BOOK, these forms are also contained herein as the Bid Forms. Each Bid and all other documentation required to be submitted with the Bid must be submitted in a sealed envelope, so marked as to indicate its contents without being opened, and addressed in conformance with the instructions in the INVITATION TO BID and the ADVERTISEMENT FOR BIDS.

8. MODIFICATION OR WITHDRAWAL OF BIDS

Any Bid may be modified after delivery to the location specified in the Invitation to Bid by delivering to the same location before the time fixed for the Bid opening, a written sealed supplement to the original Bid, marked "Supplement to Bid of (Name of Bidder) for the Metro South Transfer Station Fire Sprinkler System Replacement", Attention Pete Hillmann, Project Manager. A supplement shall clearly identify the Bid item(s) that are changed by setting forth the original Bid item(s), and the modified item(s). Metro may reject any Bid supplement that, in its opinion, does not set forth the proposed modifications

clearly enough to determine the definiteness and certainty of the item(s) offered by the Bidder. No Bidder shall be allowed to submit more than one (1) Bid for this Contract.

Bids may be withdrawn by the Bidder prior to the time fixed for the receipt of Bids by having an authorized representative of the Bidder with sufficient identification personally pick up the Bid. Bids may not be withdrawn for a period of sixty (60) days from and after the opening of Bids or on or prior to the last date of any extension of such time as may be agreed upon between Metro and the Bidder.

9. BID SECURITY

Bids must be accompanied by a certified check or cashier's check drawn on a bank in good standing, or a Bid Bond on the form provided herein by Metro, issued by a surety authorized to issue such bonds in Oregon, named on the current list of approved surety companies acceptable on federal bonds, and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the US. Treasury Department, in the amount of not less than Ten Percent (10%) of the bid amount. This bid security shall be given as a guarantee that the Bidder will not withdraw its Bid for a period of sixty (60) days after Bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Agreement and furnish a properly executed Performance Bond and a properly executed Labor and Materials Payment Bond, each in the full amount of the Bid, within the time specified. Bid security deposited in the form of a certified check or cashier's check shall be subject to the same requirements as a Bid Bond.

The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the surety must attach a notarized copy of his/her Power of Attorney as evidence of his/her authority to bind the surety on the date of execution of the bond.

10. EXPERIENCE AND ABILITY TO PERFORM THE WORK

Within twenty-four (24) hours following request by Metro, any Bidder may be required to present information indicating that the Bidder has the necessary experience and qualifications in the class of Work to be performed, and the ability, equipment, key personnel and financial resources to perform the Work satisfactorily within the time specified. In determining the award of this Contract, such information will be considered, and the Bidder is cautioned to make complete and comprehensive presentation of its abilities and resources. Failure of any Bidder to comply fully and timely with a request for information under this section shall be grounds for rejection of that Bid.

No Bidder will be considered for contract award unless such Bidder is authorized by law to execute the Contract or perform the Work for which such Bid is received. Should it appear, at any time, that any Bidder is not or might not be authorized by law to execute the Contract or perform such Work, then such Bidder may at any time be rejected and Metro may refuse to execute any contract with such Bidder regardless of whether or not the contract had been previously awarded by the Metro Council and without any liability whatever on the part of Metro, its Council, or any member of its Council, or Metro's officer, employees, or its agents, either as individuals or in official capacities.

11. REJECTION OF BIDS

Metro reserves the right to reject all Bids or any Bid not conforming to the intent and purpose of the Contract Documents, to waive any informality or irregularity in any Bid or Bids, to reject any Bid not in compliance with all prescribed public bidding procedures and requirements and, for good cause, to reject any or all Bids upon a finding by Metro that it is in the public interest to do so.

12. BASIS OF AWARD

Metro reserves the right to make award of this Contract to the lowest responsible Bidder submitting the lowest responsive bid, which shall include the base bid plus any owner selected alternates.

Under Oregon Law ORS 279.570 (included in an Appendix to the bid documents), public agencies, including Metro, must give preference to the purchase of materials and supplies manufactured from recycled materials. All Bidders are required to specify the minimum, if not exact, percentage of recycled product in each product offered, and both the post-consumer and secondary waste content of each product offered. A Bidder may also specify that none of the products offered contain any recycled product. The definitions of "recycled product," "post-consumer waste," and "secondary waste material," as well as other explanatory materials, are included in the Appendix.

A form is included for submittal of recycled product information. The form allows a bidder to specify that different portions of a single bid item contain different amounts of recycled product. If the recycling information form is not submitted with the bid, Metro will assume that none of the products offered contain any recycled product. In addition, Metro will assume that a bid item contains no recycled product if information submitted for the item is in Metro's opinion incomplete, incorrect, or unintelligible.

Metro will calculate the recycled product preference as follows: If any Bidder submits a bid price for an item that (1) meets the definition of "Recycled Product" (see Oregon Laws 1991, Chapter 385, Section 59, in Appendix), (2) meets applicable standards, and (3) can be substituted for a comparable non-recycled product, Metro will subtract 5 percent of that item's materials cost from the Total Bid Price for the purpose of comparing bids. It is Metro's responsibility to calculate any preferences required under Oregon law and to establish the materials cost of any proposed bid item. A Bidder who claims a recycled product preference shall utilize in this Work, all of the recycled product claimed.

In determining the lowest responsive bid and responsible Bidder, Metro shall, for the purpose of awarding the Contract, add a percent increase on the Bid of a non-resident Bidder, as that term is defined in ORS 279.029(6)(c), equal to the percent, if any, of the preference given to that non-resident Bidder in the state in which that Bidder resides. For purposes of determining the percent increases to be applied pursuant to this section, Metro shall rely on the list published by the Oregon Department of General Services pursuant to ORS 279.029(3), and Metro shall not incur any liability to any Bidder by relying on such list.

13. ALTERNATES

Metro will select, at its discretion, any of the proposed alternates described in the SCHEDULE OF BID PRICES, which will be part of the Basis of Award (see Article 12 in this Section - Basis of Award.)

14. LIST OF PROPOSED SUBCONTRACTORS

Metro will require all Bidders to furnish in writing to Metro the names of all Subcontractors and Suppliers which Bidder proposes to use in completing the Work along with a brief description of the subcontract or supply work involved and the subcontract or supply work dollar amount by the close of the next working day following Bid opening. Metro will notify the Bidder in writing within ten (10) days following receipt from Bidder of the above-described information if Metro has any reasonable objection to any such proposed Subcontractor or Supplier. The Bidder shall not subcontract with any proposed Subcontractor or Supplier to whom Metro has made a reasonable objection. In the event of such objection, Bidder shall propose another entity to whom Metro has no reasonable objection. No amounts or prices bid by the Bidder shall be increased by any difference occasioned by such substitution. Failure of Metro to reply within the above-described time period shall be construed to mean that Metro has no objection at that time. Failure of the Bidder to comply with this section shall be cause for rejection of Bidder's Bid and, in such event, the bid security submitted by Bidder shall be taken by Metro and considered as liquidated damages.

Prospective Bidders are encouraged to verify the qualifications of proposed subcontractors/suppliers and be prepared to furnish Metro with a list of similar projects performed by the proposed subcontractors/suppliers.

15. AWARD AND EXECUTION OF CONTRACT

Within sixty (60) days after the opening of bids, Metro will accept one of the Bids or reject all of the bids. The acceptance of the Bid will be by written Notice of Award, mailed or delivered to the office designated in the Bid. The Notice of Award shall not entitle the party to whom it is delivered to any rights whatsoever.

The successful Bidder shall, within seven (7) days after award of the Contract by the Metro Council, sign and deliver to Metro the Agreement attached hereto together with an acceptable Performance Bond and a Labor and Materials Payment Bond, certificates of insurance and certified copies of insurance policies as required in these Contract Documents.

Upon receipt of the signed Agreement and all other documents required to be submitted by the successful Bidder, as prescribed herein, Metro shall sign the Agreement and issue a written Notice to Proceed to Contractor. Contractor shall commence work within five (5) days of issuance of the Notice to Proceed.

In the event of failure of the lowest responsible Bidder to sign and return the construction Agreement and all other documents required to be submitted, as prescribed herein, Metro may award the Contract to the next lowest responsible Bidder.

16. PERFORMANCE BOND AND LABOR AND MATERIALS PAYMENT BOND

The successful Bidder shall file with Metro a Performance Bond on the form bound herewith and in the amount described below, as security for the faithful performance of this Contract and to cover all guarantees against defective workmanship or materials, or both. The successful Bidder shall additionally file a Labor and Materials Payment Bond on the form bound herewith and in the amount described below, as security for the payment of all persons supplying labor and materials for the performance of the Work. The surety furnishing these bonds shall have a sound financial standing and a record of service

satisfactory to Metro, shall be authorized to do business in the state of Oregon, and shall be named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and US. Treasury Department. If more than one surety is on a bond, then each surety must agree that it is jointly and severally liable on the bond for all obligations on the bond. A Letter of Credit, in a form suitable to Metro and otherwise in conformance with the Contract, may be substituted for a bond.

The amount of each bond described above shall be a sum not less than 100 percent of the Contract Amount. The Attorney-in-Fact (Resident Agent) who executes the Performance Bond and the Labor and Materials Payment Bond on behalf of the surety must attach a notarized copy of his/her Power of Attorney as evidence of his/her authority to bind the surety on the date of execution of the bond.

17. FAILURE TO EXECUTE CONTRACT AND FURNISH BONDS

The Bidder to whom a Contract is awarded who fails to promptly and properly execute this Contract and furnish the required bonds, certificates of insurance and certified copies of insurance policies shall forfeit the bid security that accompanied its Bid and the bid security shall be retained as liquidated damages by Metro. It is agreed that this sum is a fair estimate of the amount of damages Metro will sustain if the Bidder fails to enter into a Contract and furnish the bonds, certificates of insurance and certified copies of insurance policies required.

18. BID BACK-UP (Bid Preparation Documents)

Within five (5) days after Notice of Award and as a condition precedent to the award of the Contract, the apparent low responsible Bidder shall submit to Metro in a sealed envelope their complete bid summary, along with corresponding back-up including, but not limited to: quantity take-off sheets, pricing sheets and information/data substantiating the Total Bid amount. The back-up data provided will include that of all Subcontractors listed in the Bid, as well as all lower-tier Subcontractors. This bid summary and back-up data will be held in strict confidence by Metro in its original sealed envelope and will not be opened except in the event of dispute between Metro and Contractor. Bid back-up shall be delivered to Metro Regional Environmental Management Department, 600 N.E. Grand Avenue, Portland, OR 97232, Attention Pete Hillmann, Project Manager, enclosed in a double envelope to prevent accidental opening. The envelope shall be marked "Bid Back-Up Documents of (Name of Bidder) for the Metro South Transfer Station Fire Sprinkler System Replacement."

**SECTION 00200
INFORMATION AVAILABLE TO BIDDERS**

A copy of the following permits and reports are available for review at the Metro Regional Center,
Regional Environmental Management Department Office, 600 N.E. Grand Avenue, Portland, OR 97232.

PLANS

Metro South Transfer Station As Built Drawings.

***** END OF SECTION *****

**SECTION 00300
BID FORMS**

NOTE TO BIDDER: Bidders must provide all of the information requested in this Bid. Bidder should type or use ink for completing this Bid.

To: Metro Regional Environmental Management Department
Address: 600 N.E. Grand Avenue, Portland, OR 97232
Contract: Metro South Transfer Station Fire Sprinkler System Replacement
(RFB #97B-19-REM).
Bidder: _____
Address: _____
Bidder's Contact: _____
Date: _____ Telephone: () _____

BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of Metro, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that it has carefully examined the Contract Documents for the completion of the Work, has personally inspected the Site, has satisfied itself as to the Work involved, and that this Bid is made in accordance with the provisions and under the terms of the Contract Documents which are hereby made a part of this Bid.

Any printed matter on any letter or paper enclosed herewith which is not part of the Bidding Documents or which was not requested by Metro is not to be considered a part of this Bid, and the undersigned agrees that such printed matter shall be entirely disregarded and, notwithstanding such printed matter, that the Bid is a bid to do the Work and furnish the labor and materials and all other things required by the Contract Documents strictly within the time and in accordance with such Specifications. This Bid is irrevocable for sixty (60) days following the date of the opening of Bids.

BID SECURITY

Bid security in the form of a certified check, cashier's check or bid bond as further described in the Instructions for Bidders and in the amount of TEN PERCENT (10%) of the total bid amount is enclosed herewith and is subject to all the conditions stated in the Instructions for Bidders.

CONTRACT EXECUTION, BONDS AND INSURANCE

The Bidder agrees that if this Bid is accepted, it will, within seven (7) days after award of the Contract by the Metro Council, sign the Construction Agreement in the form annexed hereto, and will at that time deliver to Metro the Performance Bond and the Labor and Materials Payment Bond required herein and in the form annexed hereto, along with all certificates of insurance and certified copies of insurance

policies specified and required in these Contract Documents, and will, to the extent of its Bid, furnish all machinery, tools, apparatus, and other means of operation and construction and do the Work and furnish all the materials necessary to complete all Work as specified or indicated in the Contract Documents.

COMMENCEMENT OF WORK AND CONTRACT COMPLETION TIME

The time frame for the award and execution of this Contract shall be as described in the Instructions for Bidders and other Contract Documents. The Successful Bidder further agrees to commence the Work within five (5) days of issuance of the Notice to Proceed and to diligently prosecute the Work to its final completion in accordance with the Contract Documents.

ADJUSTED PAYMENTS

In the event the Bidder is awarded the Contract and fails to complete the Work in compliance with the time required by the Contract Documents, adjusted payments shall be paid to Metro as described in the General Conditions.

SALES AND USE TAXES

The Bidder agrees that all applicable federal, state and local sales and use taxes are included in the stated bid prices for the Work.

LUMP SUM AND UNIT PRICE WORK

The Bidder further proposes to accept as full payment for the Work proposed herein the amounts computed under the provisions of the Contract Documents and based on the listed lump sum and unit price amounts. The amounts shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.

PREVAILING WAGES FOR PUBLIC WORK

Bidder hereby certifies that the provisions of ORS 279.350, regarding prevailing wages, shall be complied with on this project.

SCHEDULE OF BID PRICES

The Bidder, whose legal signature binding the Bidder to the bid prices indicated on these pages is found on the signature page, hereby bids as follows:

NOTE: If any of the items for this project contain "recycled product" (See Appendix), the Bidder shall specify the amounts of such product in an attachment to the Bid Form. If no attachment is included, the amount of "recycled product" to be used by Bidder will be considered to be zero for the purpose of this Bid. Metro reserves the right to reject any or all Bids.

Bid Price for Mobilization \$ _____
(_____ DOLLARS)

Bid Price for Removal and Disposal of Existing Sprinkler System
\$ _____
(_____ DOLLARS)

Bid Price for Installation of Replacement Fire Sprinkler System \$ _____
(_____ DOLLARS)

Bid Price for Electrical Connections and Wiring for a Complete and Operable Fire Protection System \$ _____
(_____ DOLLARS)

Allowance for Incidental Unforeseen Items. These items will be based on time and material rates to be agreed upon prior to beginning work.

\$10,000
Ten Thousand and No/100ths _____ DOLLARS)

TOTAL BID PRICE (sum of all of the above) \$ _____
(_____ DOLLARS)

RECYCLED PRODUCT* ATTACHMENT TO SCHEDULE OF BID PRICES

BID ITEM NO. & DESCRIPTION	SUPPLIER	QUANTITY OF RECYCLED PRODUCT IN BID ITEM	RECYCLED PRODUCT (%)	POST-CONSUMER CONTENT (%)	SECONDARY WASTE CONTENT (%)	BID AMOUNT OF RECYCLED PRODUCT (\$)

*** NOTES:**

1. For definitions refer to Appendix, Oregon Law 1991, Chapter 385, Section 59 and 61.
2. It is the Bidder's responsibility to determine if the recycled product meets the Contract specifications. Metro reserves the right to confirm information submitted by contacting the manufacturer.

ADDENDA

The Bidder is presumed to have read and hereby acknowledges receipt and acceptance of Addenda Numbers:

(Insert No. and Date of Each Addendum Received)

SURETY

If the Bidder is awarded a Contract on this Bid, the surety or sureties who provide(s) the Performance Bond and Labor and Materials Payment Bond will be:

SURETY

ADDRESS

1. _____
2. _____

WOMEN-OWNED BUSINESS ENTERPRISE UTILIZATION FORM

Name of Metro Project _____

Name of Bidder _____

Address of Bidder _____

Phone Number (____) _____-_____

THE ABOVE PARTICIPANT:

- A. _____ Will subcontract with women-owned business enterprises. Please complete the form below.
- B. _____ Will not subcontract with women-owned business enterprises.

**BIDDER/PROPOSER INTENDS TO SUBCONTRACT WITH THE FOLLOWING
WOMEN-OWNED BUSINESS ENTERPRISE(S) (WBEs)**

SUBCONTRACTOR/SUPPLIER	NATURE OF WORK BY COMMODITY CODE (SEE ATTACHED)	DOLLAR VALUE OF PARTICIPATION

Amount of WBE Utilization _____

Authorized Signature _____

Total Bid/Proposal Amount _____

Percentage WBE Utilization _____

Date: _____

**THIS FORM MUST BE SUBMITTED AT THE TIME OF BID OPENING
OR PROPOSAL SUBMISSION**

**WBE
PROGRAM COMPLIANCE FORM**

Project Name _____

Bidder/Proposer _____

Address _____

Telephone Business () _____
Fax () _____

BIDDER/PROPOSER HEREBY CERTIFIES and it has attached documented proof of the following good faith efforts to maximize WBE opportunities and comply with Metro Code Section 2.04.260(b) by performing and documenting the following actions:

1. Identifying and Incorporating in the subcontracting plan *specific Economically Feasible Units* which may be performed by WBEs to increase the likelihood of participation by such enterprises;

List the specific economic feasible units (EFUs), i.e. subcontract areas. Inclusion of Metro targeted EFUs mandatory.

Economically feasible units

2. Attendance at any Pre-solicitation or Prebid Meetings that were scheduled by Metro to inform WBEs of contracting and subcontracting or material supply opportunities available on the project;

List name of person who attended the pre-bid conference.

3. Placing follow-up Phone Calls not later than five (5) days prior to Bid opening or Proposal submission *to all WBEs* who attended any Metro sponsored prebid or presolicitation meeting with the specific purpose of inquiring as to their intent to participate and encouraging their involvement.

(If additional space is needed, attach another sheet)

CALL PLACED BY _____
FIRM CONTACTED _____
DATE & TIME _____
PERSON CONTACTED _____
RESULT (BID,NO BID, NO RESPONSE) _____
AMOUNT OF BID _____
BID ACCEPTED/REJECTED _____
REASON REJECTED _____
LOW BID RECEIVED _____

CALL PLACED BY _____
FIRM CONTACTED _____
DATE & TIME _____
PERSON CONTACTED _____
RESULT (BID,NO BID, NO RESPONSE) _____
AMOUNT OF BID _____
BID ACCEPTED/REJECTED _____
REASON REJECTED _____
LOW BID RECEIVED _____

CALL PLACED BY _____
FIRM CONTACTED _____
DATE & TIME _____
PERSON CONTACTED _____
RESULT (BID,NO BID, NO RESPONSE) _____
AMOUNT OF BID _____
BID ACCEPTED/REJECTED _____
REASON REJECTED _____
LOW BID RECEIVED _____

4. Providing Project Information or referring interested WBEs to the appropriate plan centers for identification of the subcontract or material supply work.

PROVIDE A LIST OF REFERRALS MADE AND THE TYPE OF INFORMATION PROVIDED.

5. Negotiating with Interested, Capable and Competitive WBE Bidders; Not Rejecting any WBE Bid without Justification; Observing Bid Shopping Prohibition.

IF A BID RECEIVED FROM AN WBE IS WITHIN 10% OF THE LOWEST BID, LIST THE EFFORTS MADE TO NEGOTIATE WITH THE WBE.

6. Notifying WBEs if Bonding is Required and referring them to a potential bond source.

STATE IF BONDING WAS REQUIRED AND IF REQUIRED, WERE ANY REFERRALS MADE AND TO WHOM WERE THE WBEs REFERRED.

By signing this document the Bidder/Proposer hereby certifies that:

It has not discriminated against any WBEs in obtaining any subcontracts for this project, and the good faith efforts documented herein were reasonably expected to result in participation of WBEs in this project in compliance with the above cited Metro program.

Acknowledges that:

Metro reserves the right to verify the documentation of the lowest responsible Bidder and require additional written documentation of good faith efforts;

Failure to complete and submit this form and all required documentation at the time of Bid opening/submission deadline will result in the Bid's rejection as nonresponsive; and

Replacement of a WBE subcontractor before contract award or during contract performance without prior Metro notice and subsequent good faith efforts in selection of a replacement, is prohibited.

And, Executes this Compliance Agreement as:

Bidder/Proposer _____

By: _____

Name

Title

Date

MINORITY BUSINESS ENTERPRISE UTILIZATION FORM

Name of Metro Project _____

Name of Bidder _____

Address of Bidder _____

Phone Number (____) _____ - _____

THE ABOVE PARTICIPANT:

- A. _____ Will subcontract with minority business enterprises. Please complete the form below.
- B. _____ Will not subcontract with minority business enterprises.

**BIDDER/PROPOSER INTENDS TO SUBCONTRACT WITH THE FOLLOWING
MINORITY BUSINESS ENTERPRISE(S) (MBEs)**

SUBCONTRACTOR/SUPPLIER	NATURE OF WORK BY COMMODITY CODE (SEE ATTACHED)	DOLLAR VALUE OF PARTICIPATION

Amount of MBE Utilization _____

_____ Authorized Signature

Total Bid/Proposal Amount _____

Percentage MBE Utilization _____

Date: _____

**THIS FORM MUST BE SUBMITTED AT THE TIME OF BID OPENING OR PROPOSAL
SUBMISSION**

**MBE
PROGRAM COMPLIANCE FORM**

Project Name _____

Bidder/Proposer _____

Address _____

Telephone Business () _____
Fax () _____

BIDDER/PROPOSER HEREBY CERTIFIES and it has attached documented proof of the following good faith efforts to maximize MBE opportunities and comply with Metro Code Section 2.04.160(b) by performing and documenting the following actions:

1. Identifying and Incorporating in the subcontracting plan *specific Economically Feasible Units* which may be performed by MBEs to increase the likelihood of participation by such enterprises;

List the specific economic feasibly units (EFUs), i.e. subcontract areas. Inclusion of Metro targeted EFUs mandatory.

Economically feasible units

2. Attendance at any Pre-solicitation or Prebid Meetings that were scheduled by Metro to inform MBEs of contracting and subcontracting or material supply opportunities available on the project;

List name of person who attended the pre-bid conference.

-
3. Placing follow-up Phone Calls not later than five (5) days prior to Bid opening or Proposal submission *to all MBEs* who attended any Metro sponsored prebid or presolicitation meeting with the specific purpose of inquiring as to their intent to participate and encouraging their involvement.

(If additional space is needed, attach another sheet)

CALL PLACED BY _____
FIRM CONTACTED _____
DATE & TIME _____
PERSON CONTACTED _____
RESULT (BID,NO BID, NO RESPONSE) _____
AMOUNT OF BID _____
BID ACCEPTED/REJECTED _____
REASON REJECTED _____
LOW BID RECEIVED _____

CALL PLACED BY _____
FIRM CONTACTED _____
DATE & TIME _____
PERSON CONTACTED _____
RESULT (BID,NO BID, NO RESPONSE) _____
AMOUNT OF BID _____
BID ACCEPTED/REJECTED _____
REASON REJECTED _____
LOW BID RECEIVED _____

CALL PLACED BY _____
FIRM CONTACTED _____
DATE & TIME _____
PERSON CONTACTED _____
RESULT (BID,NO BID, NO RESPONSE) _____
AMOUNT OF BID _____
BID ACCEPTED/REJECTED _____
REASON REJECTED _____
LOW BID RECEIVED _____

4. Providing Project Information or referring interested MBEs to the appropriate plan centers for identification of the subcontract or material supply work.

PROVIDE A LIST OF REFERRALS MADE AND THE TYPE OF INFORMATION PROVIDED.

5. Negotiating with Interested, Capable and Competitive MBE Bidders; Not Rejecting any MBE Bid without Justification; Observing Bid Shopping Prohibition.

IF A BID RECEIVED FROM AN MBE IS WITHIN 10% OF THE LOWEST BID, LIST THE EFFORTS MADE TO NEGOTIATE WITH THE MBE.

6. Notifying MBEs if Bonding is Required and referring them to a potential bond source.

STATE IF BONDING WAS REQUIRED AND IF REQUIRED, WERE ANY REFERRALS MADE AND TO WHOM WERE THE MBEs REFERRED.

By signing this document the Bidder/Proposer hereby certifies that:

It has not discriminated against any MBEs in obtaining any subcontracts for this project, and the good faith efforts documented herein were reasonably expected to result in participation of MBEs in this project in compliance with the above cited Metro program.

Acknowledges that:

Metro reserves the right to verify the documentation of the lowest responsible Bidder and require additional written documentation of good faith efforts;

Failure to complete and submit this form and all required documentation at the time of Bid opening/submission deadline will result in the Bid's rejection as nonresponsive; and

Replacement of an MBE subcontractor before contract award or during contract performance without prior Metro notice and subsequent good faith efforts in selection of a replacement, is prohibited.

And, Executes this Compliance Agreement as:

Bidder/Proposer _____

By: _____
Name Title Date

COMMODITY CODES			
SPECIALTY TRADES (Residential/Commercial Construction)			
1-01-01 Asbestos removal	1-01-04 Carpentry	1-01-07 Concrete work	1-01-13 Drywall/Sheetrock
1-01-16 Electrical	1-01-19 Excavating	1-01-22 Floor Coverings	1-01-25 Gutters/Downspouts
1-01-28 Hazardous Waste Removal	1-01-31 HVAC	1-01-34 Insulation	1-01-37 Irrigation
1-01-40 Landscape Maintenance	1-01-43 Landscaping	1-01-46 Masonry	1-01-49 Metal Fabrication
1-01-52 Painting/Wallpapering	1-01-55 Plumbing	1-01-58 Roofing	1-01-61 Sandblasting/Power Washing
1-01-67 Sewer/Water Systems	1-01-67 Site Clean-up	1-01-70 Structural Steel	1-01-73 Tank Decommissioning/Removal
1-01-76 Welding			
SPECIALTY TRADES (Highway/Road Construction)			
1-03-07 Concrete Cutting	1-03-10 Concrete Flat Work	1-03-13 Concrete Pumping	1-03-16 Clearing/Mowing
1-03-19 Construction Surveying	1-03-22 Crack Sealing/Paving Fabric	1-03-25 Demolition	1-03-28 Drainage
1-03-31 Drilling/Blasting	1-03-40 Fencing	1-03-43 Grading	1-03-46 Guard Rails
1-03-49 Illumination	1-03-55 Inspections	1-03-70 Paving	1-03-79 Rebar Placement
1-03-82 Rock Crushing	1-03-85 Seeding	1-03-88 Signs	1-03-91 Site Preparation
1-03-92 Striping	1-03-93 Traffic Control	1-03-94 Trucking	1-03-95 Utilities
BUSINESS & FINANCE			
2-01-01 Accounting	2-01-04 Advertising/Public Relations/Marketing	2-01-07 Arbitration	2-01-13 Business Management
2-01-16 Data Processing	2-01-17 Training/Education	2-01-19 Insurance/Bonding	2-01-22 Legal
2-01-25 Mediation			
DESIGN			
2-03-01 Architectural Design	2-03-04 Graphic Design	2-03-07 Interior Design	2-03-10 Landscape Design
ENGINEERING			
2-05-01 Civil Engineering	2-05-04 Electrical Engineering	2-05-07 Mechanical Engineering	2-05-10 Structural Engineering
TECHNICAL			
2-07-01 Analysis/Research/Studies	2-07-04 Biological/Ecological	2-07-07 Chemical Testing/Analysis	2-07-10 Computer Aided Design
2-07-13 Construction Management Services	2-07-16 Estimating	2-07-19 Laboratory Testing/Analysis	2-07-22 Planners
2-07-25 Project Management	2-07-28 Safety	2-07-31 Surveying	2-07-37 Technical Writing/Editing
2-07-37 Transportation /Transit	2-07-40 Video Production/Documentation		
OTHER PROFESSIONAL SERVICES			
2-09-04 Real Estate/Appraisal	2-09-07 Social Services		
CONSTRUCTION SUPPLIERS			
3-01-01 Asphalt	3-01-07 Cabinets/Counter Tops	3-01-10 Cement	3-01-13 Concrete
3-01-22 Crushed Rock/Gravel/Sand	3-01-25 Doors/Windows	3-01-28 Electrical	3-01-31 Engineering/Architectural/Survey Equip.
3-01-34 Explosives	3-01-37 Flooring	3-01-40 Guard Rails	3-01-43 Irrigation
3-01-49 Lumber	3-01-52 Masonry	3-01-55 Paint	3-01-58 Pipe
3-01-61 Plants/Trees	3-01-64 Pumps	3-01-67 Roofing	3-01-70 Signs
3-01-73 Tools		3-03-00 Construction Equipment (Lease/Rental/Sales)	
3-05-00 Fuels		3-07-00 Non-Construction Equipment (Lease/Rental/Sales)	
3-09-00 Office/Data Processing Equipment/Supplies		3-13-01 Automotive Supplies	
NON-CONSTRUCTION SUPPLIES			
3-15-04 Electronic	3-15-07 Fire Equipment	3-15-10 Food/Restaurant	3-15-13 Furniture (Home/Office/Institution)
3-15-16 Janitorial	3-15-19 Linens/Bedding	3-15-22 Medical	3-15-25 Paper/Plastic
3-15-28 Safety	3-15-31 Signs (Home/Office/Commercial)	3-15-34 Telecommunication Equipment	3-15-37 Window Accessories (Curtains/Blinds)
SERVICES			
4-01-00 Food Services	4-03-01 Janitorial Services	4-03-04 Window Cleaning	4-05-00 Delivery
4-07-01 Temporary Employment	4-09-00 Engraving	4-11-00 Equipment Repair/Maintenance	4-13-00 Fire/Safety
4-15-00 Florist	4-17-00 Framing/Art	4-19-00 Furniture	4-21-00 Hauling/Refuse
4-25-00 Marine/Industrial Cleaning	4-27-00 Newspapers	4-29-00 Office Services/Word Processing	4-31-00 Photography
4-33-00 Printing/Typesetting	4-35-00 Security/Investigation	4-37-00 Telecommunication	4-39-00 Travel Services
NON-CONSTRUCTION SUPPLIES			
5-01-07 Cabinets/Counter Tops	5-01-22 Crushed Rock/Gravel/Sand	5-01-25 Doors/Windows	5-01-28 Electrical
5/01/58 Pipe	5-01-70 Signs	5-01-73 Tools	
Please indicate applicable commodity codes:			

RESIDENT/NON-RESIDENT BIDDER STATUS

Oregon law requires that Metro, in determining the lowest responsive Bidder, must add a percent increase on the Bid of a non-resident Bidder equal to the percent, if any, of the preference given to that Bidder in the state in which that Bidder resides. Consequently, each Bidder must indicate whether it is a resident or non-resident Bidder. A resident Bidder is a Bidder that has paid unemployment taxes or income taxes in the state of Oregon during the twelve (12) calendar months immediately preceding submission of this Bid, has a business address in Oregon, and has stated in its Bid that the Bidder is a "resident Bidder." A "non-resident Bidder" is a Bidder who is not a resident Bidder (ORS 279.029).

The undersigned Bidder states that it is: (check one)

- 1. _____ A resident Bidder
- 2. _____ A non-resident Bidder

Indicate state in which Bidder resides: _____

SIGNATURE PAGE

The name of the Bidder submitting this Bid is _____ doing business at

Street City State Zip

which is the full business address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of all of the partners, if the Bidder is a partnership or joint venture, or of all persons interested in this Bid as individuals are as follows:

If Individual

IN WITNESS hereto the undersigned has set his/her hand this ___ day of _____, 19__.

Signature of Bidder _____

Printed Name of Bidder _____

Title _____

If Partnership or Joint Venture

IN WITNESS hereto the undersigned has set his/her hand this ____ day of _____, 19__.

Name of Partnership or Joint Venture

By: _____

Printed Name of Person Signing

Title: _____

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this ____ day of _____, 19__.

Name of Corporation

State of Incorporation

By: _____

Printed Name of Person Signing

Title: _____

NON-COLLUSION AFFIDAVIT

STATE OF _____) County of _____)

I state that I am _____ (Title) of _____ (Name of Bidder) and that I am authorized to make this Affidavit on behalf of the Bidder. I am the person authorized by the Bidder and responsible for the price(s) and the amount of this Bid.

I state that: (1) The price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, Bidder or potential Bidder, except as disclosed in the attached appendix.

(2) Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other person who is a Bidder or potential Bidder, and they will not be disclosed before bid opening.

(3) No attempt has been made or will be made to induce any person to refrain from bidding on this contract, or to submit a Bid higher than this Bid, or to submit any intentionally high or non-competitive bid or other from of complementary Bid.

(4) This Bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any person to submit a complementary or other noncompetitive Bid.

(5) _____ (Name of Bidder), its affiliates, subsidiaries, officers, directors and employees (as applicable) are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as listed and described in the attached appendix.

I state that I and _____ (Name of Bidder) understand and acknowledge that the above representations are material and important, and will be relied on by Metro in awarding the Contract for which this Bid is submitted. Any misstatement in this Affidavit will be treated as fraudulent concealment from Metro of the true facts relating to the submission of Bids for this Contract.

Signature of Affiant

Printed Name of Affiant

Sworn to and subscribed before me this ____ day of _____, 19__.

Notary Public for _____ My Commission Expires: ____ / ____ / ____

BID BOND

(NOTE: BIDDERS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW ALL PERSONS BY THESE PRESENTS:

We the undersigned, _____, as PRINCIPAL, and _____, a corporation organized and existing under and by virtue of the laws of the state of _____ and duly authorized to do surety business in the state of Oregon and name on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, unto the METRO, as OBLIGEE, in the sum of \$ _____ in lawful money of the United States of America, for the payment of which sum well and truly to be made as agreed and liquidated damages.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT whereas the PRINCIPAL has submitted to METRO a certain Bid for work required for the Metro South Transfer Station Fire Sprinkler System Replacement which work is specifically described in the accompanying Bid;

NOW, THEREFORE, if Metro does not award a contract to the PRINCIPAL within the time specified in the Instructions to Bidders for the work described in said Bid, or in the alternate, if said Bid shall be accepted and the PRINCIPAL, within the time and in the manner described under the Contract Documents, enters into a written contract in accordance with the Bid, files the two bonds, one guaranteeing faithful performance of the work to be done and the other guaranteeing payment for labor and materials as required by law, and files the required certified copies of insurance policies and certificates of insurance, then the obligation shall be null and void; otherwise, the same shall remain in full force and effect.

The SURETY, for value received, hereby stipulates and agrees that the obligation of said SURETY and this bond shall be in no way impaired or affected by any extension of the time within which Metro may accept such Bid; and said SURETY does hereby waive notice of any such extension.

If more than one surety is on this bond, each surety hereby agrees that it is jointly and severally liable for all obligations on this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals ____ day of _____, 19__.

SURETY

PRINCIPAL

By: _____

By: _____

Title: _____

Title: _____

**SECTION 00500
CONSTRUCTION AGREEMENT**

This Construction Agreement is made by and between _____,
hereinafter called Contractor and Metro, a metropolitan service district organized under the laws of the
State of Oregon and the Metro Charter, hereinafter called Metro.

Contractor and Metro agree as follows:

1. Contract Documents

The Contract Documents consist of this Construction Agreement, the Advertisement for Bids, the Invitation to Bid, the Instructions to Bidders, the Bid Forms (including Schedule of Bid Prices, Surety, MBE/WBE Business Program Compliance, Prevailing Wage Rate Compliance, Resident/Non-resident Bidder Status, Signature Page, Non-Collusion Affidavit, Bid Bond, MBE and WBE Utilization), the Performance and the Labor and Materials Payment Bonds, the General Conditions, the Supplementary Conditions, the Technical Specifications, the Drawings; the approved and updated Construction Schedule, and other information and data as listed in the Supplementary Conditions, and any modifications of any of the foregoing in the form of Addenda or Change Orders in accordance with the terms of the Contract. Where applicable, reference to this Construction Agreement herein shall be deemed to refer to all of the Contract Documents.

These documents form the Contract and are, by this reference, expressly incorporated herein. All are as fully a part of the Contract as if attached to this Construction Agreement and repeated fully herein. No amendment made to this Contract nor Change Order issued shall be construed to release either party from any obligation contained in the Contract Documents except as specifically provided in any such amendment or Change Order.

2. Scope of Work

Contractor agrees to provide all labor, tools, equipment, machinery, supervision, transportation, permits, and every other item and service necessary to perform the Work described in the Contract Documents. Contractor agrees to fully comply with each and every term, condition and provision of the Contract Documents.

3. Contract Amount

As consideration for Contractor's performance hereunder, Metro agrees to pay contractor the Contract Amount as adjusted by approved Change Orders issued pursuant to the Contract Documents and subject to the availability of monies in the Construction Fund. Contractor agrees to accept the Contract Amount as full payment for contractor's performance of the above described Work.

The Contract Amount is _____

Metro shall make payments to Contractor in the manner and at the times provided in the Contract Documents.

4. Additional or Deleted Work

Contractor shall, when so instructed by Metro under the procedures of the contract Documents, perform additional Work or delete Work in accordance with the Contract Documents. Any increase or decrease in the Contract Amount shall be determined pursuant to the applicable provisions of the Contract Documents.

5. Time of Completion; Adjusted Payments

Time is of the essence of this Construction Agreement. The Contract Time shall commence upon issuance of the Notice to Proceed. Contractor shall commence work under this Contract within five (5) calendar days after issuance of written Notice to Proceed. Contractor shall bring the work to substantial completion no later than ninety (90) days after notice to proceed. By executing this Construction Agreement, Contractor confirms and accepts that the Contract Time so stated is a reasonable period for performance of all of the Work.

If Contractor fails to substantially complete the Work, within the Contract Time, as determined by Metro in accordance with the Contract Documents, Contractor shall be liable for adjusted payments to Metro as described in the Contract Documents.

6. Bonds

Contractor submits herewith a Performance Bond and a separate Labor and Materials Payment Bond, both in a form acceptable to Metro and otherwise in accordance with the Contract Documents and each in the Contract Amount to ensure full compliance, execution and performance of this Contract by Contractor and payment by Contractor of labor and material Suppliers as more fully described in the Contract Documents.

7. Remedies for Default

If Contractor fails to perform as specified in the Contract Documents, Metro shall be entitled to all the rights and remedies which this Contract provides, as well as all remedies provided by law. This Contract shall not be construed as limiting or reducing the remedies provided by law which Metro would have in the absence of any provision of the Contract.

8. Laws of Oregon Apply

The law of Oregon shall govern the interpretation and construction of this Construction Agreement and all of the Contract Documents.

For public work subject to ORS 279.348 to 279.365, the Contractor shall pay prevailing wages and shall pay an administrative fee to the Bureau of Labor and Industries pursuant to the administrative rules established by the Commissioner of the Bureau of Labor and Industries.

9. Entire Agreement

The Contract Documents constitute the final written expression of all of the terms of this Construction Agreement and are a complete and exclusive statement of those terms. Any and all representations, promises, warranties, or statements by either party that differ in any way from the terms of this written agreement shall be given no force and effect. This Contract shall be changed, amended, or modified only by written instrument signed by both Metro and Contractor. This Contract shall not be modified or altered by any course of performance by either party.

CONTRACTOR

METRO

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

**SECTION 00600
PERFORMANCE BOND**

(NOTE: CONTRACTORS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW BY ALL PERSONS BY THESE PRESENTS:

We the undersigned _____ as PRINCIPAL (hereinafter called CONTRACTOR), and _____, a corporation organized and existing under and by virtue of the laws of the state of _____, duly authorized to do surety business in the state of Oregon and named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, to pay to Metro as OBLIGEE (hereinafter called Metro), the amount of _____ Dollars (\$ _____), in lawful money of the United States of America.

WHEREAS, the CONTRACTOR entered into a contract with Metro dated _____, 1997, which contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows: Metro South Transfer Station Fire Sprinkler System Replacement..

NOW, THEREFORE, the condition of this obligation is such that if the CONTRACTOR shall promptly, truly and faithfully perform all the undertakings, covenants, terms, conditions, and agreements of the aforesaid Metro South Transfer Station Fire Sprinkler System Replacement, Metro having performed its obligations thereunder, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever CONTRACTOR shall be declared by Metro to be in default under the Contract Documents for the project described herein, the SURETY may promptly remedy the default, or shall promptly complete the Metro South Transfer Station Fire Sprinkler System Replacement in accordance with the Contract Documents and the project Specifications. SURETY, for value received, further stipulates and agrees that all changes, extensions of time, alterations, or additions to the terms of the Contract or Specifications for the Metro South Transfer Station Fire Sprinkler System Replacement are within the scope of the SURETY's undertaking on this bond, and SURETY hereby waives notice of any such change, extension of time, alteration or addition to the terms of the Metro South Transfer Station Fire Sprinkler System Replacement or to the Work or to the Specifications. Any such change, extension of time, alteration or addition to the terms of the Metro South Transfer Station Fire Sprinkler System Replacement or to the Work or to the Specifications shall automatically increase the obligation of the SURETY hereunder in a like amount, provided that such increase shall not exceed twenty-five percent (25%) of the original amount of the obligation without the consent of the SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made hereunder, until the full amount of the obligation is exhausted.

No right of action shall accrue on this bond to or for the use of any person or corporation other than Metro or its heirs, executors, administrators, successors or assigns.

If more than one SURETY is on this bond, each SURETY hereby agrees that it is jointly and severally liable for obligations on this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 19__.

SURETY

CONTRACTOR

By: _____

By: _____

Title: _____

Title: _____

Street Address

Street Address

City, State ZIP

City, State ZIP

Phone Number

Phone Number

**SECTION 00650
LABOR AND MATERIALS PAYMENT BOND**

(NOTE: CONTRACTOR MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW ALL PERSONS BY THESE PRESENTS:

We the Undersigned _____ as PRINCIPAL and _____, a corporation organized and existing under and by virtue of the laws of the state of _____, and duly authorized to do surety business in the state of Oregon and named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and which carries an "A" rating and is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, unto Metro, as OBLIGEE, in the sum of _____ Dollars (\$ _____) in lawful money of the United States of America, for the payment of that sum for the use and benefit of claimants as defined below.

The condition of this obligation is such that whereas the PRINCIPAL entered into a contract with Metro dated _____, 19____, which contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows: Metro South Transfer Station Fire Sprinkler System Replacement.

NOW THEREFORE, if the PRINCIPAL shall promptly make payments to all persons, firms, subcontractors, corporations and/or others furnishing materials for or performing labor in the prosecution of the Work provided for in the aforesaid Metro South Transfer Station Fire Sprinkler System Replacement, and any authorized extension or modification thereof, including all amounts due for materials, equipment, mechanical repairs, transportation, tools and services consumed or used in connection with the performance of such Work, and for all labor performed in connection with such Work whether by subcontractor or otherwise, and all other requirements imposed by law, then this obligation shall become null and void; otherwise this obligation shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is as specified in ORS 279.526.
2. The above-named PRINCIPAL and SURETY hereby jointly and severally agree with the OBLIGEE and its assigns that every claimant as above-specified, who has not been paid in full, may sue on this bond for the use of such claimant, prosecute the suit to final judgment in accordance with ORS 279.536 for such sum or sums as may be justly due claimant, and have execution thereon. The OBLIGEE shall not be liable for the payment of any judgment, costs, expenses or attorneys' fees of any such suit.

PROVIDED, FURTHER, that SURETY for the value received, hereby stipulates and agrees that all changes, extensions of time, alterations to the terms of the Metro South Transfer Station Fire Sprinkler System Replacement or to Work to be performed thereunder or the Specifications accompanying the same shall be within the scope of the SURETY's undertaking on this bond, and SURETY does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Metro South Transfer Station Fire Sprinkler System Replacement or to the Work or to the

Specifications. Any such change, extension of time, alteration or addition to the terms of the contract or to the Work or to the Specifications shall automatically increase the obligation of the SURETY hereunder in a like amount, provided that the total of such increases shall not exceed twenty-five percent (25%) of the original amount of the obligation without the consent of the SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made hereunder, until the full amount of the obligation is exhausted, or if the full amount of the obligation is not exhausted and no claim is pending resolution, until such time as no further claims can be made pursuant to law with regard to the above-described project, by any claimant specified in ORS 279.526.

If more than one SURETY is on this bond, each SURETY hereby agrees that it is jointly and severally liable for all obligations of this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 19__.

SURETY

CONTRACTOR

By: _____

By: _____

Title: _____

Title: _____

Street Address

Street Address

City, State ZIP

City, State ZIP

Phone Number

Phone Number

**SECTION 00700
GENERAL CONDITIONS
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GENERAL CONDITIONS

ARTICLE 1 GENERAL PROVISIONS

1.1. Definitions.

Unless otherwise defined or specified in the Contract Documents, the following terms shall have the meanings indicated:

- 1.1.1. Act of God. -- means an earthquake, flood, typhoon, cyclone or other natural phenomenon of catastrophic proportions or intensity.
- 1.1.2. Addendum. (Plural: Addenda) -- means a document issued by Metro during the bidding period which modifies, interprets, supersedes or supplements the Contract Documents and becomes a part of the Contract Documents. It is the Bidder's responsibility to determine how addenda impact the Work. All Bids submitted shall include the cost of the Work included in any addenda issued prior to award.
- 1.1.3. Alternate Bids. -- are portions of the Work for which a Bidder must submit a separate Bid amount. Alternate Bid items may or may not be awarded at Metro's discretion.
- 1.1.4. Architect. -- is the firm of Ralston Architects, P.C. and its agents, representatives, employees and consultants or such other firm as Metro may appoint. The Architect will have authority to act on behalf of Metro only to the extent provided in these Contract Documents.
- 1.1.5. "As-Builts" or Record Documents. -- are those drawings made, revised or annotated by Contractor and approved by Metro during the performance of the Contract, fully illustrating how all elements of the work were actually installed and completed.
- 1.1.6. Authorized Representative. -- is a person, corporation, partnership or other legal entity acting on behalf of another through expressly delegated authority as specified in these Contract Documents.
- 1.1.7. Bid. -- is the written offer of a Bidder to perform the Work as defined in these Contract Documents, when made out in accordance with all of the Contract Documents and submitted on the appropriate Bid Forms.
- 1.1.8. Bidder -- is any individual, partnership, corporation, or joint venture, acting directly or through a duly and legally authorized representative, submitting or intending to submit a Bid for the Work as described in these Contract Documents.
- 1.1.9. Bidding Documents. -- See "Contract Documents."
- 1.1.10. Bid Forms -- include the following: the Bid proposal (including Schedule of Bid Prices and Recycled Product Attachment), Surety, Minority and Women-Owned Business Program Compliance Form, Resident/Non-Resident Bidder Status form, Signature Page, the Non-Collusion Affidavit, Bid Bond, Minority Business Enterprise Utilization Form and the Women Business Enterprise Utilization Form.
- 1.1.11. City. -- means the City of Portland, Oregon.
- 1.1.12. Change Order. -- is a written document signed by Metro and Contractor stating their agreement upon all of the following:
 - 1.1.12.1. a change in the Work;
 - 1.1.12.2. the amount of the increase or decrease in the Contract Amount, if any; and

- 1.1.12.3. the extent of the adjustment to the Contract Time, if any.
- 1.1.13. Clarification. -- is a written document consisting of supplementary details, instruction or information issued by Metro after the award of Contract which clarifies, or supplements the Contract Documents and becomes a part of the Contract Documents. A Clarification may or may not affect the scope of work.
- 1.1.14. Completion. -- See "Substantial Completion" and "Final Completion and Acceptance."
- 1.1.15. Construction Coordinator. -- is the Metro representative on the construction site. The Construction Coordinator will be an employee of Metro, who will represent Metro to the extent of his authority as delegated by the Executive Officer. For purposes of administering this contract the terms "Construction Coordinator", "Construction Manager", and "Engineer" will refer to the on site Metro representative and to any duly appointed assistants who may be designated in writing. The Engineer of Record, namely Ralston Architects, P.C., will be called upon as required by and at the direction of Metro for technical assistance and for interpretation of the Contract Documents.
- 1.1.16. Construction Manager.—See "Construction Coordinator."
- 1.1.17. Construction Schedule or Schedule. -- is the timeline described in Section 01310 of the Specifications.
- 1.1.18. Contract Amount. -- is the total amount shown in the Construction Agreement as revised by Change Orders.
- 1.1.19. Contract Documents or Contract or Bidding Documents. -- consist of the Advertisement for Bids, the Invitation to Bid, the Instructions to Bidders, the Bid Forms, the Construction Agreement, the Performance Bond, the Labor and Materials Payment Bond, the General Conditions, the Supplementary Conditions, the Specifications, the Drawings, the approved and updated Construction Schedule, and any modifications of any of the foregoing in the form of Addenda, Clarifications, Change Orders or Force Account Work.
- 1.1.20. Contractor. -- is the party who has entered into this Contract with Metro and who is responsible for the complete performance of the Work contemplated by the Contract Documents and for the payment of all legal debts pertaining to the Work, including its officers, agents, employees and representatives.
- 1.1.21. Contract Time. -- is the period of time, including adjustments approved by Metro, which is allowed in the Contract Documents for Contractor to substantially complete the Work.
- 1.1.22. Critical Path Method or CPM. -- means the critical path method of scheduling as understood and interpreted by standard industry practice.
- 1.1.23. Days. -- means calendar day including Saturdays, Sundays and legal holidays.
- 1.1.24. Direct Costs. -- are those costs of labor (including benefits), material and equipment incurred by the person, corporation, partnership or joint venture whose employees are actually performing the task.
- 1.1.25. Minority Business Program. -- is Metro's program to provide maximum opportunities to Minority and Women-Owned Business Enterprises in contracts, which is contained in Metro Code Section 2.04.100 and 2.04.200.
- 1.1.26. Drawings. -- means the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of

the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

- 1.1.27. Equal, Approved, Approved Equal. -- is used to indicate that the material or product to be supplied or installed must be equal to or better than that named in function, performance, reliability, quality and general configuration and that the substitute must be approved by Engineer. Equality in reference to the Project design requirements shall be determined by Engineer prior to installation of any material or product in the Project. Where the term "or equal" is not used and a sole product is specified, the term "or equal" is implied.
- 1.1.28. Final Completion and Acceptance. -- means the completion by Contractor of all of the Work called for under the Contract, whether expressly or impliedly required, including but not limited to, satisfactory operation of all equipment, completion and correction of all punch list items to the satisfaction of Metro, settlement of all claims, delivery of all warranties and agreements to correct Work, equipment operation and maintenance manuals, as-built drawings, required approvals and acceptances by federal, state or local governments or other authorities having jurisdiction over the Work, and removal of all rubbish, tools, scaffolding and surplus materials and equipment from the Site.
- 1.1.29. Final Payment. -- is the balance of the Contract Amount to be paid to the Contractor upon Final Completion and Acceptance of the Work.
- 1.1.30. Force Account Work. -- is work, ordered in writing by Metro, for which Contractor must report its actual costs in accordance with Paragraph 8.4 of the General Conditions.
- 1.1.31. Furnish. -- means, unless the context requires otherwise, supply and deliver materials, systems and equipment to the Site, ready for unpacking, assembly, installation, etc., as applicable in each instance.
- 1.1.32. General Contractor. -- is the party who enters into the Contract with Metro. See also "Contractor".
- 1.1.33. Geotechnical Engineer. -- The Geotechnical Engineer is an agent of the Engineer.
- 1.1.34. Inclement Weather. -- is a meteorological condition or conditions, abnormal to the Portland metropolitan area for the time of year in question, which cannot be reasonably anticipated and which has a significantly adverse effect on the Construction Schedule. Abnormality of the weather is defined as the number of days the weather parameters exceed the normal adverse weather days at the project.
- For work under this contract, Metro defines adverse weather days as days on which Contractor is impacted by weather, normally defined as days with an average daily temperature of less than 32°F, significant daily precipitation or snow. Contractor will be cognizant of adverse weather days based upon long term averages when preparing project schedule, and shall refer to the annual publication of Local Climatological Data for Portland Oregon available at the Portland Weather Service Office.
- 1.1.35. Install. -- includes, unless the context requires otherwise, unload, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, connect to electrical power and/or piping, and similar operations at the Site, as applicable in each instance.
- 1.1.36. Lump Sum. -- means all costs and expenses of whatever nature, including Overhead and Profit, associated with the Work involved.
- 1.1.37. Material or Materials. -- shall be construed to include machinery, equipment, manufactured articles, materials of construction such as formwork, fasteners, etc., and

any other classes of items to be provided in connection with the Contract, except where a more limited meaning is indicated by the context.

1.1.38. Metro. -- is a metropolitan service district organized under the laws of the State of Oregon and the Metro Charter.

1.1.39. Metro Executive Officer or Executive Officer. -- means the Executive Officer of Metro.

1.1.40. Metro Council or Council. -- means the elected Council of Metro.

1.1.41. Miscellaneous Phrases. -- in the Contract Documents shall be interpreted as follows:

Wherever the words "as directed," "as instructed," "as required," "as permitted," or words of like effect are used, it shall be understood that the direction, requirement, or permission of Metro is intended.

The words "sufficient," "necessary," "proper," and the like shall mean sufficient, necessary or proper in the judgment of Metro.

The words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to, Metro.

1.1.42. Notice of Award. -- is the document issued by Metro to the lowest responsive, responsible Bidder whose Bid complies with all the requirements prescribed by the Contract Documents. The Notice of Award shall be given pursuant to the provisions of the Instructions to Bidders. It shall not entitle the party to whom it is given to any payment under the Contract, nor shall Metro be liable to such party or to any person for any alleged damages for any action taken in reliance upon such notice.

1.1.43. Notice to Proceed. -- is the written notice given Contractor to commence the prosecution of its Work as defined in the Contract Documents. The Notice to Proceed will also establish the date and time of a preconstruction conference.

1.1.44. Other Metro Contractors. -- are all individuals, corporations, partnerships, or joint ventures (except Contractor or Engineer) with whom Metro has a contract to perform work on, or related to, the Project.

1.1.45. Overhead. -- when applied to the cost of the work, shall include the following items, when reasonable and necessary for completion of the work:

1.1.45.1. All on-site payroll costs, taxes, insurance fringe benefits and bonuses of same, for supervising, estimating, expediting, purchasing, drafting and clerical/secretarial services where directly incurred in the performance of the Contract.

1.1.45.2. Small tools (less than \$250 capital cost per item).

1.1.45.3. Equipment maintenance and repairs.

1.1.45.4. Temporary construction, utilities, and safety requirements.

1.1.45.5. Transportation of materials other than direct identifiable cost of specific deliveries, or as included in price of material.

1.1.45.6. Parking fees for workers (if applicable).

1.1.45.7. Permit fees.

1.1.45.8. Cost of reproduction.

1.1.45.9. Field office costs.

Home or branch office overhead shall not be included, but shall be part of Contractor's profit and shall include, but is not limited to, the following:

1.1.45.9.1. Accounting functions of Contractor's Home and Branch Office.

1.1.45.9.2. General expenses of Contractor's Home and Branch Office.

1.1.45.9.3. Interest on capital.

1.1.45.9.4. Salaries of any home and branch office estimators and administration.

- 1.1.46. Owner. -- means Metro.
- 1.1.47. Plans. -- means Drawings.
- 1.1.48. Profit. -- means that portion of Contractor's Bid price that is not Direct Costs or Overhead.
- 1.1.49. Project. -- means the Work described in the Contract Documents.
- 1.1.50. Provide. -- means furnish and install complete and in place and ready for operation and use.
- 1.1.51. Punch List. -- is the list prepared by the Construction Manager at the time of Substantial Completion which reflects Contractor's incomplete, nonconforming work. Punch list items must be completed to the satisfaction of the Engineer and Metro in order for the Project to reach Final Completion and Acceptance.
- 1.1.52. Request for Clarification. -- is a written request made by Contractor for additional information to clarify an ambiguity in the Contract Documents.
- 1.1.53. Retainage or Retention. -- is the difference between the amount earned by Contractor on the Contract and the amount paid on the Contract by Metro.
- 1.1.54. Schedule of Values. -- is the detailed breakdown of a lump sum contract amount as required in Section 01025 of the Specifications.
- 1.1.55. Separate Contract. -- is a contract between Metro and a party other than Contractor for the construction or furnishing of a portion of the Project.
- 1.1.56. Shown, As Shown. -- work shown on the Drawings which is a part of the Contract Documents.
- 1.1.57. Site. -- is the real property upon which the Project is located.
- 1.1.58. Special Inspector. -- is a representative of the Owner, Architect, Engineer or Geotechnical Engineer with specialized knowledge applicable to the installation of certain elements of the work.
- 1.1.59. Specifications. -- are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.
- 1.1.60. Subcontractor. -- means a person, partnership, corporation or joint venture which has a direct contract with Contractor to perform a portion of the Work at the Site.
- 1.1.61. Submittals. -- include shop drawings, samples, manufacturer's brochures, pamphlets, catalog cuts, color charts or other descriptive data, clearly defining the article, material, equipment or device proposed by Contractor for use in the Work. "Shop drawings" are the drawings and diagrams showing details of fabrication and erection that Contractor is required to submit to the Engineer.
- 1.1.62. Substantial Completion. -- is the stage in the progress of the Work, as determined by Metro, when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that Metro can occupy or use the Work for its intended use.

- 1.1.63. Supplier. -- means an individual, partnership, corporation or joint venture entering into an agreement with Metro or Contractor for furnishing a portion of the Work which requires no labor at the Site, other than common carriers.
- 1.1.64. Unit Prices. -- are the costs for specific units of work as defined in the Bid and Supplementary Conditions and include all costs, including, but not limited to, equipment, labor, materials, incidentals, Overhead and Profit, for the unit of work described.
- 1.1.65. Work. -- means, unless the context requires otherwise, the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work may constitute all or a portion of the Project as the context requires.

1.2. Intent and Interpretation of Contract Documents.

- 1.2.1. Intent. -- The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all: The intent of the Contract Documents is to include in the Contract price the cost of all labor and materials, water, fuel, tools, plant, scaffolding, equipment, power, light, transportation, and all other facilities, services and expense as may be necessary for the proper execution of the Work, unless otherwise indicated in these Contract Documents. In interpreting the Contract Documents, words describing materials or work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning recognized by Architect, Engineer and Metro.
- 1.2.2. Divisions and Headings. -- Titles and headings are for the convenience of organizing the Contract Documents and shall not be construed to limit Contractor's obligations hereunder. The General Conditions are divided into fifteen (15) Articles. The first-tier subheadings of each Article shall be referred to as Paragraphs; the second-tier sub-headings shall be referred to as Subparagraphs; and the third-tier subheadings shall be referred to as Clauses.
- 1.2.3. Mandatory Nature of Specifications and Drawings. --- mention in the Specifications or indication on the drawings of articles, materials, operations, sequence or methods requires Contractor to furnish and install (i.e., provide) each article mentioned or indicated, of quality or according to qualifications noted, to perform each operation called for, in the sequence called for, and to provide therefor, all necessary labor, equipment and incidentals. The determination of the type of operations and methods to be utilized in the performance of the Work shall be the responsibility of Contractor unless the Contract Documents prescribe a specific type of operation, sequence or method, in which case Contractor shall comply with the prescribed operation, sequence or method. Sentences in the imperative tense or command format in these Contract Documents shall be deemed to be directed to Contractor and to require Contractor to perform the services and/or provide the materials described.
- 1.2.4. Precedence of Contract Documents. -- all determination of the precedence of, or discrepancy in, the Contract Documents shall be made by Metro, but in general, precedence will be in accordance with the following list with the highest precedence item at the top:
- 1.2.4.1. Signed Construction Agreement.
- 1.2.4.2. Supplementary Conditions.

1.2.4.3. General Conditions, Advertisement for Bids, Instructions to Bidders, Invitation to Bid, Bid Forms, Performance Bond and Labor and Materials Payment Bond.

1.2.4.4. Specifications

1.2.4.5. Drawings.

Within each of the above documents, detailed information takes precedence over general information and words take precedence over numbers unless obviously incorrect.

Addenda, Clarifications and all Change Orders to the Contract Documents take the same order of precedence as the specific sections that they are amending.

- 1.2.5. Discrepancies, Errors and Omissions. -- the intent of the Contract Documents is to require Contractor to perform and provide every detail and item necessary for completion of the Project. The Contract Documents are not complete in every detail, however, and Contractor shall comply with their intent and meaning, taken as a whole, and shall not avail itself of any manifest errors or omissions to the detriment of the Work. Should any error, omission, discrepancy or ambiguity appear in the Contract Documents, instructions or work done by others, Contractor shall immediately upon discovery submit a Request for clarification to Metro pursuant to Paragraph 3.2. If Contractor proceeds with any such work without receiving a Clarification, Contractor shall be responsible for all resulting damage and defects, and shall perform any work necessary to comply with Metro's Clarifications at no cost to Metro. Any work or material not indicated in the Contract Documents, which is manifestly necessary for full and faithful performance of the Work in accordance with the intent of the Contract Documents shall be indicated by Contractor on the shop drawings and provided by Contractor to the same extent as if both indicated and specified. Any work indicated on the drawings but not specified, or vice versa, shall be furnished in the manner specified above as though fully set forth in both. Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified. In case of discrepancy or ambiguity, in quantity or quality, the greater quantity or better quality as determined by Metro, shall be provided at no extra cost to Metro.
- 1.2.6. Standards to Apply Where Detailed Specifications Are Not Furnished. -- wherever in these Contract Documents or in any directions given by Metro pursuant to or supplementing these Contract Documents, it is provided that Contractor shall furnish materials or manufactured articles or shall do work for which no detailed Specifications are set forth, the materials or manufactured articles shall conform to the usual standards for first-class materials or articles of the kind required, with due consideration of the use to which they are to be put. Work for which no detailed Drawings or Specifications are set forth herein shall conform to the usual standards for first-class work of the kind required.

1.3. Supply of Contract Documents.

Metro shall supply Contractor, without charge, a maximum of ten (10) sets of Contract Documents. Contractor shall contact Metro for additional sets of documents for which Contractor shall be charged the cost of printing.

1.4. Use of Contract Documents.

The Contract Documents were prepared for use in the construction of this Project only. No part of the Contract Documents shall be used for any other construction or for any other purpose except with the written consent of Metro. Any unauthorized use of the Contract Documents is at the sole responsibility of the user and such unauthorized use shall be deemed an activity in the performance of the Contract for purposes of Contractor's duty to indemnify under Article 11.

1.5. Copyright.

All submittals, record documents and any other products or documents produced by Contractor pursuant to this Contract are the property of Metro and it is agreed by the parties hereto that such documents are works made for hire. Contractor does hereby convey, transfer and grant to Metro all rights of reproduction and the copyright to all such documents.

1.6. Severability Clause.

Should any provision of this Contract at any time be in conflict with any law, regulation or ruling, or be legally unenforceable for any reason, then such provision shall continue in effect only to the extent that it remains valid. In the event that any provision of this Contract shall become legally unenforceable, in whole or in part, the remaining provisions of this Contract shall nevertheless remain in full force and effect.

1.7. Notice or Service.

Any written notice required or allowed under the Contract shall be deemed to have been communicated to the other party and service thereof shall be deemed to have been made if such notice is delivered in person to the individual, a member of the partnership or joint venture, or an officer of the corporation for whom it was intended or if delivered at or sent by regular, registered or certified mail to the last business address of the relevant person or party known to the person or party giving the notice or to Contractor's Site office if the notice is directed to Contractor. The date or time of service for purposes of all notices required or allowed under the Contract shall be the date and/or time upon which the relevant document was mailed or delivered as above-described.

The address given in the Bid is hereby designated as the legal business address of Contractor, but such address may be changed at any time by ten (10) days prior notice in writing, delivered to Metro.

ARTICLE 2 CONTRACTOR'S ORGANIZATION

2.1. Contractor's Authorized Representatives.

Prior to commencing any work under this Contract, Contractor shall submit in writing to Metro a list of Contractor's authorized representatives. Such list shall include the name and title of each representative along with the extent to which each representative is authorized to represent, bind and act for Contractor. The description of extent of representation shall include, but not be limited to, the maximum dollar value of Change Orders which the individual may authorize, whether the individual may respond to Request for Proposals and for what maximum dollar amount and whether the individual may submit a claim pursuant to Paragraph 3.3. Contractor shall be fully liable for the acts, omissions and decisions of such representatives to the extent stipulated in the written list submitted to Metro.

Contractor shall at all times be represented at the Site by one or more of such authorized representatives, who, cumulatively, shall have complete authority to represent, bind and act for Contractor in all matters pertaining or related to this Contract. In the event that Contractor does not comply with this paragraph and, consequently, is not fully represented at the Site at all times, Contractor shall be deemed to acquiesce in all actions taken by Metro which pertain or relate to this Contract.

2.2. Contractor's Office at the Site.

Prior to commencement of work at the site, Contractor shall establish a field office at the site acceptable to the Construction Coordinator. This office shall be located in a job trailer or temporary building. This office shall be the headquarters of Contractor's representatives authorized to receive notices, instructions, drawings or other communications from the Construction Manager on behalf of Metro or the Architect and to act on Change Orders or other actions. Such notices, instructions, drawings or other communications given to such a representative or delivered to Contractor's site office in his/her absence shall be deemed to have been given to Contractor.

2.3. Key Personnel.

Contractor shall submit, in writing, to Metro a list of the names, addresses, and telephone numbers of its key personnel who are to be contacted in case of emergencies on the job during non-working hours, including Saturdays, Sundays and holidays and all other key personnel as may be required.

2.4. Contractor's Employees.

Contractor shall enforce strict discipline and good order among Contractor's employees and other persons carrying out the Work. Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

Whenever Metro shall notify Contractor that any employee on the Work is, in the judgment of Metro, incompetent, unfaithful, disorderly or refuses to carry out the provisions of the Contract, such employee shall be discharged or transferred from the Work.

Contractor shall give Metro, at its request at any time, full and correct information as to the number of workers employed in connection with each subdivision of the Work, the classification and rate of pay of each worker, the cost to Contractor of each class of materials, tools and appliances used by it in the Work, and the amount of each class of materials used in each subdivision of the Work.

2.5. Daily Construction Reports.

Each day Contractor shall deliver to the Construction Manager a daily construction report which shall include, at a minimum, the following information:

2.5.1. Name of Contractor and Project.

2.5.2. Weather, temperature and any unusual Site conditions for the day in question.

2.5.3. A brief description and location of the day's work activities and any special problems and/or serious accidents or environmental releases, including preventative or mitigation measures taken. (including work of Subcontractors)

2.5.4. A description of significant progress in construction for that day as well as any problems encountered that might affect the progress of the Project as they relate to the Construction Schedule.

2.5.5. A detailed listing of labor employed on the Work for that day. The listing shall include a description of both Contractor's and Subcontractor's workers employed that day and shall have breakdowns for minority, female trade and worker classifications and hours worked.

2.5.6. Equipment in use that day (other than hand tools).

2.5.7. Daily summary and accumulated quantity amounts of items listed above.

2.5.8. Any other information as requested by Metro or its representative.

2.6. Contractor to Supply Sufficient Material and Workers.

Contractor shall at all times keep on the premises sufficient material and employ sufficient supervision and workers to prosecute the Work at the rate necessary to substantially complete the Work herein required within the time specified in the Contract and in accordance with the Construction Schedule. Contractor shall coordinate the Work of its Subcontractors so that information required by one will be provided by others involved in time for incorporation in the Work in proper sequence and without delay of any materials, devices or provisions for future work.

2.7. Construction Plant, Equipment and Methods.

The construction plant and equipment provided by Contractor, and Contractor's methods and organization for handling the Work shall be such as will secure a good quality of work and rate of progress which will ensure the completion of the Work within the time specified, in accordance with the Construction Schedule, and without violating city, local, state or federal environmental regulation during construction.

Contractor shall give Metro full information in advance as to Contractor's plans for carrying on any part of the Work. If at any time before the commencement or during the progress of the Work, any part of Contractor's plant or equipment, or any of Contractor's methods of executing the Work, appears to Metro to be inadequate to ensure the required quality, environmental protection or rate of progress of the Work, Metro may order Contractor to increase or improve its facilities or methods, and Contractor shall promptly comply with such orders. Neither compliance with such orders nor failure of Metro to issue such orders shall relieve Contractor from obligation or liability to secure the quality of work and the rate of progress required by the Contract. Contractor shall be responsible for overload of any part or parts of structures beyond their safe calculated carrying capacities, and for release of pollutants into surrounding waters resulting from Contractor's activities on the Site.

Contractor shall provide temporary utilities pursuant to the Specifications and shall be responsible for the safety and adequacy of its plant, equipment and methods.

2.8. Contractor's Temporary Structures.

Contractor shall obtain all necessary permits for and shall erect and maintain at its own expense, and remove upon completion of the Work or as ordered by Metro temporary structures, sheds, barriers, walks, hoisting equipment, scaffolds, etc., as are necessary for the Work pursuant to these Contract Documents.

Contractor's temporary structures, equipment, stored materials, stored equipment, etc., shall be located so as not to interfere with the prosecution of the Work. If not so located, they shall be moved by Contractor, as directed by Metro, at no cost to Metro. Contractor's temporary structures, equipment or materials that obstruct progress of any portion of the work shall be removed or relocated by Contractor at Contractor's expense.

ARTICLE 3 ADMINISTRATION OF THE CONTRACT

3.1. Authority and Relationships of Metro and Architect.

The following provisions shall govern the authority of the various officers, agents, representatives, consultants and employees of Metro, and Architect. Except as specifically provided in this section, no individual acting or purporting to act as an officer, agent,

representative, consultant or employee of Metro or Architect shall have any authority to make representations, statements or decisions of whatever nature binding Metro or Architect regarding any aspect of this Contract. Except as specifically provided in this Article, Contractor shall have no right to, and shall not rely on any such representation, statement or decision. Any reference to action by Metro in this Contract requires the written approval of the Metro Executive Officer or a person who is designated in writing by the Metro Executive Officer as having authority to act for Metro but only to the extent that such authority is expressly delegated in writing.

3.1.1. Authority of Metro. --except as otherwise provided herein, Metro shall determine the amount, quality, acceptability, fitness, and progress of the Work covered by the Contract. Metro and Architect will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and they will not be responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents. Metro and Architect will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work. Nothing contained in this Contract is intended nor shall be construed to create any third-party beneficiary relationship between Metro and Contractor's subcontracting agents or employees.

It shall be the duty of Contractor to comply with all procedures established and/or implemented by Metro as stated above. In the event any such procedures are at variance with other provisions of these Documents, such procedures shall prevail.

Metro may call for meetings of Contractor, Contractor's Subcontractors and Suppliers as Metro deems necessary for the proper supervision and inspection of the Work. Such meetings shall be held at the Site on regular working days during regular working hours, unless otherwise directed by Metro. Attendance shall be mandatory for all parties notified to attend.

Contractor shall immediately comply with any and all orders and instructions given in accordance with the terms of this Contract by Metro.

Contractor has no right to, and shall not, rely on representations of whatever nature made by any individual, whether or not employed by or purporting to represent Metro or Architect, unless such individual has been specifically and expressly delegated authority to make such representations pursuant to these Contract Documents. Likewise Contractor has no right, and shall not rely on any representations of authorized changes in the contract of whatever size or nature unless such change is in writing and signed by Metro.

Nothing contained in this Paragraph shall obligate Metro or Architect to supervise Contractor's work under this Contract and Contractor shall remain fully responsible for the complete and proper supervision of all of the Work.

3.2. Clarifications.

Should it appear that the Work to be done or any of the matters relative to the Contract Documents are not sufficiently detailed or explained in the Contract Documents, or should there be any questions which may arise as to the meaning or intent of the Contract Documents, Contractor shall immediately submit to Metro a written Request for Clarification which shall fully describe the information sought. It is Contractor's responsibility to request information under this Paragraph in sufficient time for review by Architect and Metro so that the orderly progress and prosecution of the Work is not delayed.

The Architect, in consultation with Metro, shall interpret the meaning and intent of the Contract Documents and shall issue, within ten (10) working days of receiving a Request for Clarification from Contractor, a written Clarification describing such meaning and intent. Additionally, the Architect, after consulting with Metro, may at any time issue written Clarifications as deemed necessary to carry out the Work included in the Contract Documents. Notwithstanding any dispute or disagreement which Contractor may have concerning any such Clarifications, Contractor shall perform the Work as prescribed and in accordance with all such Clarifications.

If notified by Metro that a Clarification is forthcoming, any related work done before the receipt of the Clarification shall be coordinated with Metro so as to minimize the effect of the Clarification on work in progress. Any related work not coordinated with Metro done before receipt of the Clarification shall be at Contractor's risk and at no cost to Metro if that work does not conform to the Clarification.

If Contractor proceeds with work which is not sufficiently detailed or explained in the Contract Documents without requesting and obtaining a Clarification pursuant to this Paragraph, Contractor shall do so at its own risk and shall, at no cost to Metro, perform any additional work which may be required by Metro to bring the work into conformance with the intent of the Contract Documents.

3.3. Contractor's Claims.

3.3.1. Generally. -- no claims of any sort whatsoever by Contractor shall be considered or allowed under this Contract except as specifically provided and prescribed under this Paragraph. Failure to make a claim as specifically prescribed by this Paragraph or failure to perform disputed work, if any, as directed by Metro shall bar Contractor from any recovery of any sort or extension of time resulting from the facts surrounding the claim. Contractor's full and complete compliance with this Paragraph shall be a condition precedent to any right of Contractor to further prosecute any claim against Metro arising out of or related to Work described in the Contract Documents. Every decision and action of Metro shall be considered final unless Contractor makes a claim concerning such decision or action pursuant to this Paragraph.

3.3.2. Types of Claims. -- the types of claims that Contractor may make are limited to the following:

3.3.2.1 Claims based upon justifiable delays as described in Subparagraph 3.3.3

3.3.2.2. Claims based upon differing Site conditions as described in Subparagraph 3.3.4;

3.3.2.3. Claims based upon Clarifications or Change Orders issued by Metro or any other decision, action or failure to act by Metro as described in subparagraph 3.3.5.

As a condition precedent to any such claim, Contractor shall comply with all applicable procedural and substantive requirements of this Contract.

Contractor may make claims that include requests for extensions of the Contract Time and/or requests for increases in the Contract Amount. If Contractor believes that a single circumstance or set of facts gives rise to both a claim for an extension to the Contract Time and an increase in the Contract Amount, Contractor must state both such allegations in one written claim or waive the unstated allegation.;

3.3.3. Claims For Justifiable Delays.

3.3.3.1. Definition of Justifiable Delay. -- if Contractor is significantly and justifiably delayed in the prosecution of the Work due to any of the acts, events or conditions described as justifiable delays below, Contractor may make a claim

for an increase in the Contract Time and/or Contract Amount pursuant to Clause 3.3.3.2.

"Justifiable Delay" shall mean, and is limited to, the acts, events or conditions described in sections (a) through (j) below, if such act, event or condition has a materially adverse effect on the ability of Contractor to obtain the benefits of its rights or to perform its obligations under this Contract or materially increases the cost to Contractor to obtain the benefits of such rights or to perform such obligations and if such act, event or condition and its effect:

1. are beyond the reasonable control of Contractor (or any third party for whom Contractor is directly responsible);
2. do not arise out of (a) strikes, labor disputes or other labor difficulties involving Contractor or its Subcontractors or Suppliers or entities providing transportation to Contractor or its Subcontractors or Suppliers, (b) labor shortages, or (c) changing economic conditions; and
3. could not have been reasonably anticipated by Contractor.

The acts, events and conditions are:

- (a) An Act of God.
- (b) Inclement Weather.
- (c) Acts of a public enemy, war (whether or not declared) or governmental intervention resulting therefrom, blockage, embargo, insurrection, riot or civil disturbance.
- (d) The failure to issue or renew, or the suspension, termination, interruption or denial of, any permit, license, consent, authorization or approval essential to the Work, if such act or event shall not be the result of the willful or negligent action or inaction of Contractor, or of any third party for whom Contractor is directly responsible, and if Contractor shall be taking or have taken or shall cause to or have caused to be taken, all reasonable actions in good faith to contest such action (it being understood that the contesting in good faith of any such action shall not constitute or be construed as a willful or negligent act of Contractor).
- (e) The failure of any appropriate federal, state, municipal, county or other public agency or authority or private utility having operational jurisdiction over the Work or Site to provide and maintain utilities, services, water and sewer lines and power transmission lines to the Site, which are required for and essential to the Work.
- (f) Epidemics or quarantines.
- (g) Material, equipment or fuel shortages or freight embargoes.
- (h) Priorities or privileges established for the manufacture, assembly or allotment of material by order, decree, or otherwise of the U. S. or by any department, bureau, commission, committee, agent or administrator of any legally constituted public authority.
- (i) Changes in the work ordered by Metro if they require additional time to complete the work and adversely impact the Critical Path.
- (j) The prevention by Metro of Contractor from commencing or prosecuting the Work.

Acts, events, or conditions outside the control of the Architect, Metro or Contractor which are found to be justifiable delay under 3.3.3.1.3 (a) through

(h), may result in a time extension but the risk for bearing the cost of extended overhead will remain with Contractor.

No claim for extension of the Contract Time will be considered for Inclement Weather unless Contractor submits documentation that such weather conditions are abnormal for the area and period of time in question; that they could not have been reasonably anticipated; and that the Inclement Weather had a significantly adverse effect on the Construction Schedule.

Delays in delivery of equipment or material purchased by Contractor or its Subcontractors or Suppliers (including Metro-selected equipment) shall not be considered as a just cause for delay if timely ordering would have made the equipment available. Contractor shall be fully responsible for the timely ordering, scheduling, expediting, delivery, and installation of all equipment and materials.

The term "delay" shall specifically not include and no extension of the Contract Time or increase in the Contract Amount shall be allowed for (i) any delay which could have been avoided by the exercise of care, prudence, foresight and diligence on the part of Contractor; (ii) any delay in the prosecution of parts of the Work, which may in itself be unavoidable but which does not necessarily prevent or delay the prosecution of other parts of the Work, nor the Substantial Completion of the Work of this Contract within the time specified; (iii) any reasonable delay resulting from the time required by Metro for review of Submittals or Shop Drawings submitted by Contractor and for the making of surveys, measurements and inspections; (v) any delay arising from an interruption in the prosecution of the Work on account of the reasonable interference from Other Metro Contractors which does not necessarily prevent the Substantial Completion of the Work of this Contract within the time specified; and (vi) any delay resulting in any manner from labor disputes, strikes or difficulties or any delay resulting in any manner from any labor-related event, act or condition whether or not Contractor has any control over such event, act or condition.

3.3.3.2. Justifiable Delay Claims Procedure. -- Contractor shall, within twenty-four (24) hours of the start of the occurrence or Contractor's first knowledge of the occurrence which is the basis of the claim for justifiable delay, which ever is earlier, notify Metro in writing of such delay. The written notice by Contractor shall indicate the cause of the delay and shall estimate the possible time extension requested. Within ten (10) days after the cause of the delay has been remedied, Contractor shall give written notice to the Construction Manager of any actual time extension and any increase in the Contract Amount requested as a result of the aforementioned occurrence in accordance with this Contract.

Within Twenty-one (21) days after Contractor submits to the Construction Manager such a written notice for an extension of time and/or increase in the Contract Amount, the Construction Manager will issue the decision on each request. If Contractor is dissatisfied with such decision, Contractor may preserve its claim as provided and prescribed by Subparagraph 3.3.6.

3.3.4. Claims for Differing Site Conditions. -- Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Construction Manager of (i) subsurface or latent physical conditions at the Site which differ materially from those indicated in this Contract, or (ii) unknown physical conditions at the Site, of an unusual

nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The Construction Manager shall investigate the Site conditions promptly after receiving the notice. If the conditions do materially so differ as to cause an increase or decrease in Contractor's cost of, or the time required for performing any part of the Work under this Contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made and a Change Order issued.

If Contractor is dissatisfied with the decision of the Construction Manager under this Subparagraph, Contractor may preserve its claim as provided and prescribed by Subparagraph 3.3.6.

- 3.3.5. Other Contractor Claims. -- Contractor claims based upon Clarifications or Change Orders issued by Metro or any other decision, action or failure to act by Metro shall be made according to this Subparagraph.

Contractor shall, within twenty-four (24) hours following discovery of the facts which give rise to its claim, notify the Construction Manager in writing of its intent to make the claim. Within ten (10) days following discovery of the facts which give rise to its claim and prior to commencing the work or conforming to the Clarification on which the claim is based, if any, Contractor shall submit its formal written claim to the Construction Manager. Contractor's formal claim shall include a description of:

- 3.3.5.1. the factual occurrences upon which Contractor bases the claim including the decision, action or failure to act by Metro or its authorized representatives that allegedly give rise to the claim;
- 3.3.5.2. how Metro's decision, action or failure to act has affected Contractor's performance or otherwise affected Contractor;
- 3.3.5.3. whether the claim is for an extension in the Contract Time or increase in the Contract Amount or both and the specific extension or increase requested;
- 3.3.5.4. the provisions of the Contract upon which the claim is based.

Submission of written notice of intent to make a claim and formal claim as specified above shall be mandatory and failure to comply shall be a conclusive waiver to any claim by Contractor. Oral notice or statement will not be sufficient nor will notice or statement after commencing the work in question.

After the written notification is submitted by Contractor (if the claim is not resolved or withdrawn in writing) and only upon written direction by the Construction Manager, Contractor shall proceed without delay to perform the work pursuant to the direction of the Construction Manager. While the work on an unresolved claim is being performed, Contractor shall keep track of costs and maintain records in the manner set forth in the section on Force Account Work, at no cost to Metro. Such notice by Contractor and the fact that Contractor is keeping track of costs and maintaining records shall not in any way be construed as proving the validity of the claim nor the costs thereof.

Provided the claim or claims have been submitted in accordance with the requirements of this Article, the Construction Manager will consider and investigate the claim or claims of Contractor. Within twenty-one (21) days of receipt of the above-described written notification of claim the Construction Manager will advise Contractor of the Construction Manager's decision to accept or reject the claim or claims, in full or in part. If Contractor is dissatisfied with the decision of the Construction Manager under this Subparagraph, Contractor may preserve its claim as provided and prescribed by Subparagraph 3.3.6.

3.3.6. Preservation of Claims. -- Within thirty (30) days after a rejection of claim, in whole or in part, by Metro under Subparagraphs 3.3.3, 3.3.4 or 3.3.5, Contractor may preserve its claim by submitting a fully documented claim package to Director of Regional Facilities, Metro. That package shall include substantiating documentation with an itemized breakdown of Contractor and Contractor's Subcontractor's costs on a daily basis which shall include, but not be limited to, labor, material, equipment, supplies, services, Overhead and Profit. All documentation that Contractor believes is relevant to the claim shall be provided in the claim package including without limitation, payroll records, purchase orders, quotations, invoices, estimates, correspondence, profit and loss statements, daily logs, ledgers and journals. Failure to submit the claim package in full compliance with this requirement, and/or maintain cost records as herein required, will constitute a waiver of the claim.

If Contractor elects to pursue any claims by filing a lawsuit against Metro, it must commence such lawsuit within six (6) months after the date of Substantial Completion. Failure to commence a lawsuit within this time limitation shall constitute a waiver of all such claims by Contractor.

3.4. Metro's Right to Adjust Payments.

3.4.1. Adjusted Payments for Delay. -- Time is of the essence in this Contract. Metro and Contractor understand and agree that Metro will be damaged if Contractor fails to substantially complete the Work within the Contract Time, and that Metro will be vulnerable to further damages if Metro is obligated to continue paying Contractor for work performed after the Contract Time has expired. It is therefore agreed that after the Contract Time, Metro may adjust its payments to Contractor by any combination of the following: (1) making no further payments to Contractor until the Work is substantially complete, (2) paying the Subcontractor costs incurred by Contractor without any overhead, profit or fee of any kind going to Contractor, and/or (3) by collection of liquidated damages in the amount of five hundred dollars (\$500.00) per day.

Permitting Contractor to continue and finish the work or any part thereof after the Contract Time has expired shall in no way operate as a waiver on the part of Metro of any of its rights under this subparagraph or the balance of the Contract Documents.

3.4.2. Adjusted Payments Not a Bar to Metro's Right to Other Damages. -- Payment of adjusted payments shall not release Contractor from obligations in respect to the complete performance of the Work, nor shall the payment of such adjusted payments constitute a waiver of Metro's right to collect any additional adjusted payments which it may sustain by failure of Contractor to fully perform the Work, it being the intent of the parties that the aforesaid adjusted payments be full and complete payment only for failure of Contractor to complete the Work on time. Metro expressly reserves the right to make claims for any and all other damages which Metro may incur due to Contractor's failure to perform in strict accordance with this Contract.

3.5. Arbitration.

Both parties shall, in good faith, attempt to negotiate resolutions to all disputes arising out of this Contract. Subject to the conditions and limitations of this paragraph, any controversy or claim arising out of or relating to this Contract which remains unresolved after such negotiations shall be exclusively settled by arbitration under the laws of the state of Oregon, in accordance with the Commercial Arbitration Rules of the American Arbitration Association. All disputes shall be heard and decided by one arbitrator and all arbitration proceedings shall be held in Portland,

Oregon. However, all disputes concerning Metro's right to the equitable remedy of specific performance shall not be subject to arbitration, but shall be decided exclusively by a court of competent jurisdiction in Multnomah County, Oregon, under the laws of the state of Oregon.

Contractor agrees to consolidation of any arbitration between Metro and Contractor with any other arbitration involving, arising from, or relating to this Contract.

In the event that Metro determines, in its sole opinion, that the public interest requires a speedy resolution of any controversy or claim regardless of the amount, Metro shall have the option of electing resolution of the controversy or claim by the Expedited Procedures of the Commercial Arbitration Rules of the American Arbitration Association (Rules 54 through 58).

In no event shall submission of a dispute arising out of this Contract, by either party, relieve Contractor of its obligation to fully perform the requirements of the Contract as directed by Metro, pending resolution of the dispute pursuant to the procedures set forth in this Article. In the event Contractor, in Metro's opinion, fails to fully perform the requirements of the Contract pending resolution of a dispute, Metro shall be entitled to exercise its rights to impose adjusted payments pursuant to Subparagraph 3.4.1, and/or terminate the Contract pursuant to Article 15 of this Contract.

Each party hereto and Contractor's Surety accepts jurisdiction of the courts of the state of Oregon for the purposes of commencing, conducting and enforcing such arbitration proceedings and agrees to accept notice in writing sent by certified letter addressed to said party of intention to proceed with arbitration and of any other step in connection therewith or enforcement thereof, with the same effect as though personally served therewith in the state of Oregon. The decision of the arbitrator shall be final and binding upon both parties and Contractor's Surety who hereby agree to comply therewith. The parties agree that proper venue for any judicial proceeding to enforce any decision or award made by an arbitrator under this section shall be exclusively in the county of Multnomah in the state of Oregon.

ARTICLE 4 SUBCONTRACTING AND ASSIGNMENT OF THE CONTRACT

4.1. Contractor's Responsibility for the Work.

Contractor shall perform or cause to be performed all labor, services and work of whatever nature and shall provide or cause to be provided all materials, equipment, tools and other facilities of whatever nature necessary to complete the Work and shall otherwise cause the Work to be completed in accordance with the Contract Documents.

Contractor shall take and assume all risk for all work and material involved in the Project until the entire Project has been finally accepted by Metro.

Contractor shall supervise and direct the Work, using Contractor's best skill and attention. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.

4.2. Subcontracting.

Contractor shall arrange and delegate its work in conformance with trade practices and union regulations, if applicable, but shall remain responsible to Metro for performance of all work required or implied by the Contract Documents. Contractor shall also be responsible for coordinating the efforts of its Subcontractors and Suppliers.

- 4.2.1. Objection to Subcontractors or Suppliers. -- Metro reserves the right to make reasonable objection to any of Contractor's Subcontractors or Suppliers if Metro discovers any data or information at any time during the performance of the Contract which gives Metro a basis for such reasonable objection.

Metro will notify Contractor in writing if Metro has any reasonable objection to any of Contractor's Subcontractors or Suppliers. Contractor shall not subcontract with any Subcontractor or Supplier to which Metro has made a reasonable objection. In the event of Metro's reasonable objection to any Subcontractor or Supplier, Contractor shall propose another entity to which Metro has no reasonable objection. The Contract Amount shall not be increased by any difference in cost occasioned by such substitution, nor shall the Contract Time be extended.

- 4.2.2. Substitution, Change or Addition of Subcontractors or Suppliers. -- At any time that Contractor intends to substitute, change or add a Subcontractor or Supplier during the performance of the Contract, Contractor shall give Metro prior written notice of such intention. Contractor shall not substitute, change or add any such Subcontractor or Supplier if Metro gives Contractor reasonable objection in writing within ten (10) days after Metro receives such notice.

When any Subcontractor fails to prosecute a portion of the Work in a satisfactory manner, Metro may so notify Contractor. If the Subcontractor fails to cure the unsatisfactory work promptly, Contractor shall remove such Subcontractor immediately upon written request of Metro and Contractor shall request approval from Metro of a new Subcontractor to perform this section of the Work at no increase in the Contract Amount, and with no change in the Contract Time.

- 4.2.3. Metro Not Obligated to Detect Unsatisfactory Work. ——— Nothing contained in this Contract shall obligate Metro or place on Metro an affirmative duty to detect or discover unsatisfactory work or materials of Contractor's Subcontractors or Suppliers. Failure of Metro to detect or discover such unsatisfactory work or materials shall not relieve Contractor of any of its obligations under this Contract.

- 4.2.4. No Contractual Relationships between Metro and Contractor's Subcontractors and Suppliers. --Nothing contained in this Contract is intended nor shall be construed to create any contractual or third-party beneficiary relationship between Metro and any of Contractor's Subcontractors, Suppliers or agents, save and except in relation to the Labor and Materials Payment Bond .

- 4.2.5. Contractor's Agreements with Subcontractors. -- Contractor shall provide in all subcontract and supply agreements that the Subcontractor or Supplier will be bound by the terms and conditions of this Contract to the extent that they relate to the Subcontractor's or Supplier's work. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with sub-tier Subcontractors and Suppliers. Contractor shall make available to each proposed Subcontractor and Supplier, prior to the execution of the subcontract or supply agreement, copies of the Contract Documents which apply to the work and materials to be provided by the Subcontractor or Supplier. Subcontractors and Suppliers shall similarly make copies of applicable portions of such documents available to their respective proposed sub-tier Subcontractors and Suppliers.

All Subcontractor's and Supplier's agreements shall also provide that they are assignable to Metro at Metro's option, in the event that Metro terminates the Contract. Contractor

will provide to Metro, a copy of all subcontracts and supply contracts for permanent materials.

Nothing contained in this Subparagraph shall be construed as creating a direct or indirect contractual relationship between Metro and any of Contractor's Subcontractors or Suppliers. No such Subcontractor or Supplier shall have, or shall claim to have, any third-party beneficiary rights or status in relations to this Contract, save and except in relation to the Labor and Materials Payment Bond provided by Contractor.

4.3. Assignment.

Contractor shall constantly give its personal attention to the faithful prosecution of the Work. Contractor shall keep the Work under its personal control and shall not assign any or all of Contractor's rights, by power of attorney or otherwise, nor delegate any of its duties except with the prior written approval of the Metro Council.

ARTICLE 5 TIME OF COMPLETION AND SCHEDULE FOR THE WORK

5.1. Prosecution of Work Generally.

Contractor shall commence the Work within five (5) days after issuance of written Notice to Proceed from Metro and will diligently prosecute the Work to its Final Completion and Acceptance. The start of Work shall include attendance at preconstruction conferences, preparation and submittal of shop drawings, equipment lists, Schedule of Values, CPM construction schedules, requests for substitutions and other similar activities, as described by these Contract Documents.

5.2. Time of Completion.

Contractor shall bring the Work to Substantial Completion within the Contract Time as set forth in the Construction Agreement.

The time limits stated in these Contract Documents are of the essence of this Contract. By executing the Construction Agreement, Contractor confirms that the Contract Time is a reasonable period for performing all of the Work.

Failure of Contractor to substantially complete the Work within the Contract Time and according to the provisions of these Contract Documents shall subject Contractor to damages pursuant to the applicable sections of these Contract Documents.

5.3. Extensions of Time.

Extensions of the Contract Time shall be made pursuant to the procedure and according to the provisions and requirements contained in Articles 3 and 8 of these Contract Documents.

5.4. Project Scheduling.

Contractor shall submit to Metro a detailed Construction Schedule for completion of the work pursuant the Specifications. The Construction Schedule shall, when approved and as updated and approved by Metro, become a part of the Contract Documents.

5.5. Use of Completed Parts of the Work before Acceptance.

Whenever, in the opinion of Metro, the Work or any part thereof is in a condition suitable for use and it is in the best interest of Metro to require such use, Metro may take possession of, connect

to, open for public use, or use the Work or a part thereof. When so used, maintenance and repair due to ordinary wear and tear or vandalism will be made at Metro's expense and Metro will defend liability claims which may result from such use by Metro. The use by Metro of the Work or part thereof as contemplated in this Paragraph shall in no case be construed as constituting acceptance of the Work or any part thereof. Such use shall neither relieve Contractor of any of its responsibilities under the Contract Documents, nor act as a waiver by Metro of any of the conditions thereof.

ARTICLE 6 COORDINATION WITH OTHER METRO CONTRACTORS

6.1. Other Metro Contractors Generally.

Metro reserves the right to award other contracts in connection with the work. Contractor shall afford all such Other Metro Contractors reasonable opportunity for storage of their materials and execution of their Work, shall provide that the execution of Contractor's Work properly connects and coordinates with work of all Other Metro Contractors, and shall cooperate with Other Metro Contractors to the end of facilitating the Work in such a manner as Metro may direct. Connection between the work of the Contractor and other Metro Contractors will be the responsibility of the party which is last in time to construct, unless otherwise directed in the Contract Documents.

6.2. Duty to Inspect Other Metro Contractors' Work.

Where Contractor's Work is associated with that of Other Metro Contractors, or is to interface in any way with such Other Metro Contractor's work, Contractor shall examine, inspect and measure the adjacent or in-place work of such Other Metro Contractors. If Contractor determines that any defect or condition of such adjacent or in-place work will impede or increase the cost of Contractor's performance or otherwise prevent the proper execution of Contractor's Work, Contractor shall immediately, and before performing any work affected by the Other Metro Contractors' work, submit a Request for Clarification to Metro pursuant to Paragraph 3.2. If Contractor proceeds without examining or inspecting the work and submitting a Request for Clarification, Contractor shall be held to have accepted the Other Metro Contractors' work or material and the existing conditions, and shall be responsible for any defects in Contractor's Work resulting therefrom and shall not be relieved of any obligation or any warranty under this Contract because of any such condition or imperfection. This provision shall be included in any and all of Contractor's subcontracts for Work to be performed.

The foregoing does not apply to latent defects. Contractor shall report latent defects in any Other Metro Contractors' work at any time such defects become known or Contractor should have known, and Metro shall promptly thereafter take such steps as may be appropriate. If Contractor in the exercise of reasonable care should have known of such defects but did not report them, such defects shall not be considered latent.

6.3. Duty to Maintain Schedule.

It shall be the responsibility of Contractor to maintain its schedule so as not to delay the progress of the Project or the work of Other Metro Contractors. Contractor is required to cooperate in every way possible with Other Metro Contractors. Except as otherwise specifically provided in this Contract, no additional compensation will be paid for such cooperation. If Contractor delays the progress of the Project or the progress of Other Metro Contractors, it shall be the responsibility of Contractor to take all of the steps necessary to bring the affected work into compliance with any affected schedules and to indemnify Metro from all liability for such delays pursuant to Article 11.

Metro shall be under no duty to monitor or detect any delays of Contractor or any Other Metro Contractor on the Project or any lack of coordination on the Project. Consequently, the failure of Metro to so monitor or detect shall not be construed as relieving Contractor of its duties to fully perform all of its obligations under the Contract.

6.4. Failure to Maintain Schedule.

If, in the opinion of Metro, Contractor falls behind the Construction Schedule or delays the progress of Other Metro Contractors and is not entitled to an extension of time pursuant to the Contract Documents, Contractor shall perform all steps which are necessary, in the opinion of Metro, to bring Contractor's Work into compliance with the Construction Schedule or to remedy any delay to the progress of Other Metro Contractors. Contractor shall submit operation plans to Metro, which plans shall fully demonstrate the manner of intended compliance with this Paragraph. The steps referred to above shall include, but not be limited to:

- 6.4.1. Increase manpower in such quantities and crafts as will substantially eliminate the backlog of work.
- 6.4.2. Increase, when permitted, the number of working hours per shift, shifts per working day, working days per week, or the amount of equipment or any combination of the foregoing, sufficient to eliminate the backlog of work.
- 6.4.3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.
- 6.4.4. Expedite delivery of materials and equipment such as use of air freight.

If Metro directs Contractor to take measures described in this Paragraph, or if Contractor takes such measures without direction from Metro, Contractor shall bear all costs of complying. Metro shall, however, reimburse Contractor for reasonable costs of complying if such directive to accelerate from Metro was issued to overcome delay caused by the acts or omissions of Metro or persons acting for Metro, provided Contractor has complied with all applicable provisions of Articles 3 and 8 of this Contract.

Failure to maintain the construction schedule or to take action to regain the schedule or to furnish a schedule as outlined in the specifications may result in withholding of all or part of the monthly progress payments.

6.5. Failure to Coordinate Work.

If Contractor fails to coordinate its work with the work of Other Metro Contractors as directed by Metro, Metro may, upon written notice to Contractor:

- 6.5.1. Withhold any payment otherwise due hereunder until Contractor complies with Metro's directions.
- 6.5.2. Direct others to perform portions of the affected Work and charge the cost of such Work against the Contract Amount or deduct the cost from sums held in Retainage.
- 6.5.3. Terminate any or all portions of the Work for Contractor's failure to perform in accordance with the Contract.

6.6. Other Metro Contractors' Failure to Coordinate.

If Contractor determines that any Other Metro Contractor on this Project is failing to coordinate its work with the Work of Contractor, Contractor shall immediately and before performing any affected Work submit a Request for Clarification to Metro pursuant to Paragraph 3.2.

6.7. Conflicts Among Contractors.

Any difference or conflict that may arise between Contractor and Other Metro Contractors in regard to their work shall be adjusted as determined by Metro. If directed by Metro, Contractor shall suspend any part of the Work specified or shall carry on the same in such manner as may be prescribed by Metro when such suspension or prosecution is necessary to facilitate the work of Other Metro Contractors.

6.8. Coordination Drawings.

Contractor shall prepare coordination drawings as determined necessary by Metro, to satisfactorily coordinate and interface its Work with the work of all Other Metro Contractors, thereby avoiding conflicts which may arise.

6.9. Conferences.

At any time during the progress of the Work, Metro shall have authority to require Contractor to attend any conference of any or all of Contractors engaged in the Project or related projects.

ARTICLE 7 CONTROL AND QUALITY OF WORK AND MATERIAL

7.1. Quality Control

7.1.1. Generally. -- Contractor has the primary responsibility for quality control. Contractor will provide continuous superintendence and inspection to insure that the work is completed in accordance with the plans and specifications, Additionally, during the performance of the Work, Metro, the Architect, and Special Inspectors, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, including representatives of federal, state, and local agencies having jurisdiction over the Work, may at any time, and for any purpose, enter upon the Site, the shops where any part of such Work may be in preparation, or the factories or sites where any materials for use in the Work are being or are to be manufactured or derived. Contractor shall provide proper and safe facilities therefor, and shall make arrangements with manufacturers or other suppliers to facilitate inspection of their processes and products to such extent as Metro's interest may require.

No claims for extension of the Contract Time or increase in the Contract Amount shall be allowed for any access allowed to Metro under this Paragraph.

7.1.2. Quality Control Plan. -- Contractor shall prepare and submit to the Construction Manager within thirty (30) days following Notice to Proceed a Quality Control Plan which describes Contractor's procedures for implementing the Quality Control Program. The Plan shall include, but not be limited to, the Quality Control Organization, inspection procedures, tests anticipated, materials control, contingency plans related to fire protection and remediation of contaminated releases or other environmental improvement, and reports. Metro reserves the right to accept or reject or modify the Quality Control Plan. Contractor will submit an interim Quality Control Plan prior to the start of work to cover the first thirty (30) days of construction.

7.1.3. Quality Control Manager. Prior to initiation of construction Contractor shall designate in writing a Quality Control Manager who shall be responsible for coordinating Contractor's Quality Control Program. The individual so designated shall be the interface with the Construction Manager on matters relating to submittals, inspection, scheduling,

unacceptable work product and corrective actions. Metro reserves the right to accept or reject the Quality Control Manager designated by Contractor.

7.2. Inspection.

Contractor has the primary responsibility for providing inspection and testing, except as otherwise set forth in the specifications. Metro and its agents will also inspect at their discretion or as outlined in the specifications.

7.2.1. Generally. -- Contractor shall at all times commencing with the issuance of the Notice to Proceed until Final Completion and Acceptance of the Work, permit Metro, the Architect, and Special Inspectors, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, including representatives of federal, state, and local agencies having jurisdiction over the Work, to visit and monitor the progress of the Work for conformance of the Work with the Contract Documents.

7.2.2. Special Inspections. -- Contractor shall at all times, commencing with the issuance of the Notice to Proceed until Final Completion and Acceptance of the Work, permit Metro, the Architect, and Special Inspectors, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, including representatives of federal, state, and local agencies having jurisdiction over the Work, to visit and inspect the Work, the materials and the manufacture and preparation of such materials, and subject the Work and materials to inspection and testing to determine if the Work conforms to the requirements of the Contract Documents. Contractor shall maintain proper facilities and safe access for all such inspections. Where the Contract requires work to be inspected or tested, it shall not be covered up until inspected, tested and approved by Metro. Contractor shall be solely responsible for notifying Construction Manager at least two (2) working days prior to performing such work, so that necessary arrangements for inspection and testing can be made. Should any work be covered without such inspection or test and approval, it shall be uncovered and repaired at Contractor's expense.

7.2.3. Notice to Metro for Certain Work Days. -- Whenever Contractor intends to perform work on Saturday, Sunday or any legal holiday, it shall give written notice to Metro of such intention at least two (2) working days prior to performing such work, or such other period as may be specified by Metro, so that Metro may make the necessary arrangement for testing and inspection.

7.2.4. Correction of Defective Work before Acceptance. -- Any defective work or work which otherwise fails to conform to the Contract Documents, which is discovered before Final Completion and Acceptance of the Work, shall be corrected immediately by Contractor, and any unsatisfactory materials shall be rejected and replaced with satisfactory materials, notwithstanding that they may have been overlooked by the authorized inspector. The inspection of the Work by Metro, the Engineer or any other agency shall not relieve Contractor of any of its obligations to perform fully all of the terms and provisions of the Contract Documents.

7.2.5. Acceptance Not Implied by Failure to Object. -- Failure or neglect on the part of Metro or any of its authorized representatives to condemn or reject defective, improper or inferior work or materials shall not be construed to imply a final acceptance of such work or materials and shall not be construed as relieving Contractor of its duties to perform fully all requirements of the Contract Documents.

7.3. Unsatisfactory Materials and Workmanship.

7.3.1. Generally.-- Material, work or workmanship which, in the opinion of the Construction Manager, does not conform to the Contract Documents, or is not equal to the samples submitted to and approved by the Construction Manager, or is in any way unsatisfactory or unsuited to the purpose for which it is intended, will be rejected. Contractor shall bear the cost of correcting or removing as deemed necessary by Metro, all non-conforming materials, work or workmanship. Contractor shall make a close inspection of all materials as delivered, and shall promptly replace all defective materials with conforming materials without waiting for their rejection by Metro.

7.3.2. Removal of Rejected or Non-Conforming Work or Material. -- All rejected material or work, and all defective or non-conforming work or material, shall be removed from the Site without delay. If Contractor fails to do so within forty-eight (48) hours after having been so directed by Metro, the rejected material may be removed by Metro and the cost of removal charged against Contractor and deducted from Retainage held by Metro or offset against payments due Contractor, at Metro's option.

If in the judgment of Metro it is undesirable or impracticable to replace any defective or non-conforming work or materials, the compensation to be paid to Contractor shall be reduced by Change Order or Force Account, as applicable, by such amount as, in the judgment of Metro, shall be equitable.

7.4. General Warranty of Contractor.

Contractor warrants to Metro that materials and equipment provided under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects and contaminants not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by Metro, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

The warranty made by Contractor under this Paragraph shall be in addition to any other specific warranties and certifications required elsewhere in these Contract Documents.

7.5. Correction of Work by Contractor.

Contractor shall be responsible for and shall promptly correct or replace any defective Work, whether due to faulty or contaminated materials or errors in workmanship, or Work failing to conform to the requirements of the Contract Documents which may be discovered or which may develop within one (1) year after the date of Substantial Completion or within such longer period as is specified below or otherwise in these Contract Documents.

In the case of equipment manufactured by others and supplied and/or installed by Contractor, the one (1) year period shall commence upon the date of first beneficial operation of such equipment by Metro. In the case of Work which is corrected or replaced by Contractor, the one (1) year period shall commence again on the date of acceptance by Metro of such corrected or replaced Work. Testing shall not be construed to mean acceptance.

If Metro does not require correction or replacement of defective Work or Work failing to conform to the Contract Documents, Contractor, if required by Metro, shall repay to Metro such portion of the Contract Amount as is equitable under the circumstances, as determined by Metro.

Contractor's responsibilities under this Paragraph shall not extend to correction or replacement of defects which are attributable to mistreatment by Metro or to normal wear and tear.

7.6. Warranty and Correction Agreements by Subcontractors.

7.6.1. Generally. -- In addition to any requirements for written warranties required by the Specifications, Contractor shall require all of its Subcontractors and Suppliers of any tier to make the same warranty to Metro as Contractor makes under Paragraph 7.4. Contractor shall also require all of its Subcontractors and Suppliers of any tier to agree to correct or replace defective Work or Work not conforming to the Contract Documents, and to take full responsibility for defective materials, in the same manner as Contractor agrees to correct or replace such Work under Paragraph 7.5.

7.6.2. Form of Submissions. -- Contractor shall require all of its Subcontractors and Suppliers of any tier to sign documents evidencing the promises made pursuant to Subparagraph 7.6.1 above and shall submit such documents to Metro with its request for Final Payment. Such documents shall be signed by both Contractor and the applicable Subcontractor or Supplier and shall be in the following form:

"We the undersigned hereby warrant that the _____

(described work performed and/or materials provided)

that we have provided for the Installation of a Replacement Sprinkle System at Metro South Transfer Station has been done in accordance with the Contract Documents and that the work as provided will fulfill the requirements of the warranty included in Article 7 of the Contract Documents.

"We agree to correct or remove and replace any or all of our work, together with any other adjacent work which may be displaced or affected by so doing, that may be defective in its workmanship or materials or which may fail to conform to the requirements of the Contract Documents within a period of one (1) year following the applicable date described in Paragraph 7.5 without any expense whatsoever to Metro, normal wear and tear and mistreatment excepted.

"In the event of our failure to comply with the above-mentioned conditions within twenty (20) calendar days after Metro notifies Contractor in writing, we collectively and separately do hereby authorize Metro to proceed to have said defects repaired and corrected at our expense and we will honor and pay the costs and to dispose of nonconforming materials and charges therefore upon demand."

7.7. Remedies Not Restrictive.

The remedies provided for in this Article shall not be restrictive of but shall be cumulative and in addition to all other remedies of Metro in respect to latent defects, frauds or failure to perform all work as required by the Contract Documents.

7.8. Proof of Compliance with Contract Provisions.

For Metro to determine whether Contractor has complied or is complying with the requirements of the Contract which are not readily enforceable by inspection and test of the Work, Contractor shall, upon request, promptly submit to Metro such properly authenticated documents as may be

necessary to demonstrate compliance with the Contract or other satisfactory proof of its compliance with such requirements.

7.9. Patents, Copyrights, Trademarks.

All fees or costs of claims for any patented invention, article or arrangement or any copyrights or trademarks that may be used upon or in any manner connected with the performance of the Work or any part thereof, shall be included in the Bid for doing the Work. Contractor shall save, keep, hold harmless, and fully indemnify Metro and Architect from all damages, claims for damage, lawsuits, costs, expenses or liabilities of whatever nature in law or equity, including attorney's fees and court costs, which may at any time arise or be set up for any infringement of the patent rights, copyrights or trademarks of any person or persons in consequence of the use by Metro of articles to be supplied under the Contract and of which Contractor is not the patentee or assignee or has not the lawful right to sell the same. This is in addition to all other hold harmless and indemnification clauses in these Contract Documents.

7.10. Anti-Trust Claims.

By entering into this Contract, Contractor, for consideration paid to Contractor under the Contract, does irrevocably assign to Metro any claim for relief or cause of action which Contractor now has or which may accrue to Contractor in the future, including, at Metro's option, the right to control any such litigation on such claim for relief or cause of action, by reason of any violation of 15 USC Section 1-15, ORS 646.725 or ORS 646.730, in connection with any goods or services that are used, in whole or in part, for the purpose of carrying out Contractor's obligations under this Contract.

Contractor shall require all Subcontractors and Suppliers to irrevocably assign to Metro, as a third party beneficiary any right, title or interest that has accrued or may accrue to the Subcontractors or Suppliers by reason of any violation of 15 USC Section 1-15, ORS 646.725 or ORS 646.730, including, at Metro's option, the rights to control any litigation arising thereunder, in connection with any goods or services provided to the Subcontractors or Suppliers by any person, in whole or in part, for the purpose of carrying out the Subcontractors' or Suppliers' obligations as agreed to by Contractor in pursuance of the completion of the Contract.

In connection with Contractor's, Subcontractors' or Suppliers' assignment, it is an express obligation of Contractor, Subcontractor or Supplier that it will take no action which will in any way diminish the value of the rights conveyed or assigned hereunder to Metro. It is an express obligation of Contractor, Subcontractor or Supplier to advise the General Counsel of Metro:

7.10.1. In advance, of its intention to commence any action on its own behalf regarding such claims for relief or causes of action;

7.10.2. Immediately, upon becoming aware of the fact that an action has been commenced on its own behalf by some other person or persons, of the pendency of such action; and

7.10.3. The date on which it notified the obligor(s) of any such claims for relief or causes of action of the fact of its assignment to Metro.

Furthermore, it is understood and agreed that in the event that any payment under any such claim is made to Contractor, Subcontractor or Supplier, it shall promptly pay over to Metro its proportionate share thereof, if any, assigned to Metro hereunder.

ARTICLE 8 CHANGES IN THE WORK

8.1. Change Orders Generally.

Metro may order changes in the Work herein required, including deletions of work, and may order additional materials and work in connection with the performance of the Work.

If such changes in the Work increase or decrease the cost of any part of the Work or change the time necessary to complete the Work, the Contract Amount shall be increased or decreased by such amount and the Contract Time changed as Contractor and Metro may agree upon as reasonable in a written Change Order. Contractor shall promptly comply with such Change Orders and carry them out in accordance with the Contract Documents.

No order for any alteration, modification or additional work which shall increase or decrease the Contract Amount or change the Contract Time shall become part of the Contract unless the resulting Change Order shall have been agreed upon in writing and the Change Order signed by Contractor and Metro, unless the work is Force Account work. Metro may, at its discretion, also require the signature of Contractor's surety on the Change Order. Prior to the approval of such Change Order, the Engineer shall have approved any design modifications entailed thereby.

8.2. Procedure for Determining Impact of Change Orders on Contract Amount.

8.2.1. Price before Proceeding. -- If Metro intends to order changes in the Work, it may request a proposal by Contractor for the proposed added or deleted work before directing Contractor to commence work. Within fourteen (14) days after issuance of such request by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form approved by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so indicated and written proposals from Subcontractors or Suppliers shall be included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.

8.2.2. Proceed While Pricing. -- If Metro finds it necessary to make changes in the Work in an expeditious manner, it may direct Contractor to proceed with the change while preparing a proposal for the added or deleted Work. In such an instance, Metro may assign an estimated value to the change which Contractor shall not exceed without further authorization by Metro. Within fourteen (14) days after issuance of such by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form approved by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.

8.2.3. Unit Prices. -- If the proposed additional or deleted work is the subject of Unit Prices stated in the Contract Documents or subsequently agreed upon, such Unit Prices shall be binding upon Contractor in calculating the increase or decrease in the Contract Amount attributable to the proposed additional or deleted work.

8.3. Limitations when Change Orders Impact Contract Amount.

The following limitations shall apply in the calculation of the costs of changes in the Work:

- 8.3.1. Overhead and Profit. -- Contractor will be permitted a reasonable allowance for Profit and Overhead on its increased Direct Cost resulting from any changes in the Work ordered by Metro. Likewise, Profit and Overhead will be deducted for any portion of the Work which is deleted. In the case of a change involving both credits and extras, Overhead and Profit shall be applied to the net extra after subtraction of credits.

Overhead and Profit for the entity performing the work with its own crews shall not exceed 10 percent of the Direct Cost of the changed work.

Overhead and Profit for Contractor or Subcontractor who has had the work performed by a lower tier Subcontractor shall not exceed ten percent of the Direct Cost of the changed work.

If the Work is performed by a second-tier or inferior Subcontractor, the total Overhead and Profit for all tiers shall in no event exceed 25 percent of the Direct Cost of the changed work. Distribution of this Overhead and Profit among the tiers is the responsibility of Contractor.

- 8.3.2. Taxes and Insurance. -- Federal, state, regional, county and local taxes, including, but not limited to, income taxes, excise taxes, sales and use taxes and payroll taxes and insurance shall be shown separately and will be allowed on extras and shall be credited on credits. No Overhead and Profit will be allowed on taxes and insurance.
- 8.3.3. Bond Premiums. -- The actual rate of bond premium as paid on the additional Direct Cost plus the cost of taxes defined in 8.3.2 will be allowed. No Overhead and Profit will be allowed on such premiums.
- 8.3.4. Equipment Costs. -- The allowance for equipment costs (both rental as well as Contractor-owned equipment) shall be limited to those rates in the Rental Rate Bluebook published by Dataquest Incorporated, 1290 Ridder Park Drive, San Jose, California 95131-2398, (800) 227-8444.

8.4. Force Account Work.

If Contractor does not respond to Metro's Request for Proposal with a cost breakdown within the fourteen (14) day period as required above, or if Metro determines that Contractor's breakdown of costs is unreasonable in consideration of the work proposed to be added or deleted, or if Metro determines that the proposed work must be commenced promptly to avoid delay to the Project, Metro may issue an order for Force Account work and Contractor shall promptly perform or delete the work described in such order. Change, if any, in the Contract Amount due to such Force Account work shall be the sum total of the following items:

- 8.4.1. Actual labor cost, including premium on compensation insurance and charge for social security taxes, and other taxes pertaining to labor.
- 8.4.2. The proportionate cost of premiums of public liability property damage and other insurance applicable to the extra work involved and required by these Contract Documents.
- 8.4.3. Actual cost of material, including applicable taxes pertaining to materials.
- 8.4.4. Actual cost of plant and equipment rental, at rates to be agreed upon in writing before the work is begun or at rates per Subparagraph 8.3.4 above. No charge for the cost of repairs

to plant or equipment will be allowed. Equipment items having a capital cost of under \$250.00 are considered small tools and classified as Overhead.

8.4.5. Overhead and Profit as provided and limited in Paragraph 8.3.

8.4.6. The proportionate actual costs of premiums for bonds required by these Contract Documents.

Whenever any Force Account work is in progress, Contractor shall furnish each working day to Metro a detailed written report signed by Contractor and Metro's representative of the amount and cost of all of the items listed in (1) through (6) above, and no claim for compensation for such extra work will be allowed unless such report shall have been made. Metro reserves the right to provide such materials as it may deem expedient and no compensation, overhead or profit will be allowed to Contractor for such materials.

8.5. Oral Modifications.

No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this Contract.

8.6. Contractor Proposals for Changes in Work.

8.6.1. Generally. -- At any time during the performance of the Work, Contractor may propose to Metro changes in work which Contractor believes will result in higher quality work, improve safety, shorten the Contract Time, decrease the Contract Amount, or otherwise result in better or more efficient work.

8.6.2. Purpose. -- Metro encourages Contractor to submit Value Engineering Change Proposals (VECPs) in order to avail Metro of potential cost saving that may result. Contractor and Metro will share any savings, computed in accordance with instructions herein. Contractor is encouraged to submit VECPs whenever he identifies an area which can be improved, using the format described herein.

8.6.3. Application. -- This clause applies to a contractor developed and documented VECP which: (1) requires a change to this Agreement to implement the VECP; and (2) reduces the Contract Price without impairing essential functions or characteristics of the Work, provided it is not based solely on a change in specified quantities.

8.6.4. Documentation. -- At a minimum, the following information shall be submitted by Contractor with each VECP: (1) description of the existing requirements of the Contract Documents which are involved in the proposed change; (2) description of the proposed change; (3) discussion of differences between existing requirements and the proposed change, together with advantages and disadvantages of each changed item; (4) itemization of the requirements which must be changed if the VECP is accepted (e.g., Drawing numbers and Specifications); (5) justification for changes in function or characteristics of each such affected item and effect of the change on the performance of the end item; (6) effect of proposed change on life-cycle costs, including operation and maintenance, replacement costs, and life expectancy; (7) date or time by which a Change Order adopting the VECP must be issued in order to obtain the maximum cost reduction, noting any effect on Contract Time or delivery schedule; and (8) cost estimate for existing contract requirements correlated to his lump sum breakdown and proposed changed requirements. Costs of development and implementation by Contractor shall be identified. Estimated Metro costs (e.g., cost of testing and redesign) shall also be identified.

- 8.6.5. Submission. --Proposals will be processed expeditiously; however, Metro will not be liable for any delay in acting upon any proposal submitted pursuant to this clause. Contractor shall have the right to withdraw, in whole or in part, any VECP at any time prior to acceptance by Metro.
- 8.6.6. Acceptance. -- Metro may accept, in whole or in part, by Change Order, any VECP submitted pursuant to this clause. Until a Change Order is issued, Contractor shall remain obligated to perform in accordance with this Agreement. The decision as to acceptance or rejection of any VECP will be at the sole discretion of Metro and will be final and not subject to review by arbitration or otherwise.
- 8.6.7. Sharing. -- If a VECP submitted by Contractor pursuant to this clause is accepted, Contractor shall proceed with the change and the Contract Price will be adjusted in accordance with the following provisions:

Definitions

- 8.6.7.1. Estimated Gross Savings to Contractor (GS): The difference between cost of performing the Work according to the existing requirement and the cost if performed according to the proposed change. In each instance, Contractor's profit shall not be considered part of the cost.
- 8.6.7.2. Contractor Costs (CC): Reasonable costs incurred by Contractor in preparing the VECP and making the change such as cancellation or restocking charges where required.
- 8.6.7.3. Estimated Net Savings to Contractor (NS): Gross savings (GS) less Contractor costs (CC).
- 8.6.7.4. Metro's Costs (OC): Reasonable costs incurred by Metro for evaluating and implementing the VECP, such as testing and redesign, where required.

Calculations

- 8.6.7.5. The Contract Price shall be reduced by an amount equal to 50 percent of (NS) plus 50 percent of (OC), expressed by the formula:

$$\text{Reduction} = 0.5 (\text{NS}) + 0.5 (\text{OC}).$$

- 8.6.7.6. Contractor's profit will not be reduced by application of the VECP.
- 8.6.8. Subcontracts. -- Contractor shall include appropriate value engineering incentive provisions in all subcontracts of \$25,000 or greater. He may include such provisions in any Agreement. Subcontracts shall contain a provision that any benefits accruing to Contractor as a result of an accepted VECP initiated by a Subcontractor shall be shared by Contractor and Subcontractor. To compute any adjustment in the Contract Price under Paragraph 6.45 above, Contractor's costs of preparation and charge for a VECP shall include any preparation and change costs. Examples are cancellation or restocking charges when required.
- 8.6.9. Disclosure Restrictions. -- Contractor may restrict Metro's right to use any sheet of a VECP or of the supporting data submitted pursuant to this clause, in accordance with the terms of the following legend if it is marked on such sheet:

Legend

To the extent allowed by law, data furnished pursuant to the value engineering incentive clause of the Agreement shall not be: (1) disclosed to any outside person or agency, (2) duplicated, or (3) used. Metro may disclose, duplicate, or use furnished data to

evaluate a VECP submitted under said clause. This restriction does not limit Metro's right to use information that has been obtained, or is otherwise available, from Contractor or from another source without limitations. If such a VECP is accepted, Metro shall have the right to duplicate, use, and disclose any data reasonably necessary to the full utilization of such VECP as accepted, in any manner and for any purpose whatsoever, and have others so do.

8.7. Impact of Authorized Changes in the Contract.

Changes in the Work made pursuant to this Article and extensions of the Contract Time allowed by Metro due to such changes shall not in any way release any warranty or promises given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the sureties of bonds executed pursuant to said provisions. The sureties, in executing such bonds, shall be deemed to have expressly agreed to any such change in the Work and to any extension of Contract Time made by reason thereof.

ARTICLE 9 PAYMENTS AND COMPLETION

9.1. Scope of Payment.

Payment to Contractor of the Contract Amount for performing all Work required under the Contract, as adjusted for any Change Orders approved as hereinbefore specified, shall be full compensation for furnishing all labor, materials, equipment and tools necessary to the Work, and for performing and completing, in accordance with these Contract Documents, all Work required under the Contract, and for all expenses incurred by Contractor for any purpose in connection with the performance and completion of said Work.

Whenever it is specified herein that Contractor is to do work or provide materials of any class for which no price is fixed in the Contract, it shall be understood that Contractor is to do such work or provide such materials without extra charge or allowance or direct payment of any sort, and that the cost of doing such work or providing such materials is included in its Bid.

9.2. Schedule of Values.

9.2.1. Generally. -- Within thirty (30) days after the Notice to Proceed and at least 15 days prior to Contractor's application for the first progress payment, Contractor shall submit a detailed breakdown on its lump sum bid. The format and detail of the breakdown shall be as directed by Metro and in accordance with Section 01025 of the Specifications to facilitate and clarify future progress payments to Contractor. This breakdown shall be referred to as the Schedule of Values.

9.2.2. Review of Schedule of Values. -- Metro will review the Schedule of Values to ascertain that the dollar amounts of the Schedule of Values are in fact fair cost allocations for the work item listed. Upon concurrence by Metro, a formal approval of this Schedule of Values will be issued. Metro shall be the sole judge of fair cost allocations. Contractor's monthly progress payment requests shall reflect the cost figures included in the approved Schedule of Values and shall be based upon completed work items or percentages of work items completed prior to the end of the payment period as more fully described below.

9.3. Progress Payment Procedure.

9.3.1. Generally. -- Subject to the approval of Metro, disbursements shall be made by Metro of progress payments upon written request of Contractor and pursuant to the Contract Documents as specified in Section 01025 of the Specifications.

Before the end of each calendar month, Contractor shall file with the Construction Manager in duplicate on a form approved by Metro, a proposed payment estimate for the period commencing on the 26th day of the previous month through midnight on the 25th day of the calendar month in question. Metro and the Construction Manager shall review Contractor's estimate and shall determine the value of Contractor's work based upon the Schedule of Values and incorporated labor and materials for the payment period. Contractor shall not be paid for any work which is, in Metro's opinion, defective or improper or for work needed to correct Contractor's defective or improper work. Contractor shall be paid 95 percent (95%) of the determined value of work accomplished less any offset or withholding of sums by Metro allowed under the Contract Documents within thirty (30) days after receipt by Metro of Contractor's payment estimate. Metro will routinely withhold five percent (5%) as Retainage.

No inaccuracy or error in any monthly progress payment estimates shall operate to release Contractor or its surety from damages arising from such work or from the enforcement of each and every provision of the Contract Documents, and Metro shall have the right subsequently to correct any error made in any estimate for progress payments.

9.3.2. Retainage. -- If, in Metro's opinion, work on the Project is progressing satisfactorily, Metro may eliminate additional Retainage on any remaining monthly progress payments after 50 percent (50%) of the Work under the Contract is, in Metro's opinion, completed. Elimination of additional Retainage under this Subparagraph shall be allowed by Metro only upon written application by Contractor, which application shall include written approval of Contractor's surety.

If after Metro allows such an elimination of additional Retainage, Metro determines that progress of the Work is not satisfactory or that Contractor has breached any provision of the Contract, Metro may again retain and continue to retain, in addition to that Retainage already being held by Metro, five percent (5%) of any future progress payments made to Contractor.

When Metro determines that the Work is 97-½ percent (97-½%) complete, Metro may, at its discretion and without application by Contractor reduce the retained amount to 100 percent (100%) of the value of the Work remaining to be done.

All funds retained by Metro under this section shall be retained in a fund by Metro and paid in accordance with ORS 279.435.

Contractor may elect to deposit bonds or securities of the type described below with Metro or in any bank or trust company to be held in lieu of the cash retainage described above and for the benefit of Metro. In such event, Metro shall reduce the Retainage in an amount equal the value of the bonds and securities and shall pay the amount of the reduction to Contractor in accordance with ORS 279.435. Interest on such bonds or securities shall accrue to Contractor.

Bonds and securities deposited or acquired as described above shall be of a character approved by the Director of Oregon's Department of General Services including, but not limited to:

- 9.3.2.1. Bills, certificates, notes or bonds of the United States.
- 9.3.2.2. Other obligations of the United States or its agencies.
- 9.3.2.3. Obligations of any corporation wholly owned by the federal government.
- 9.3.2.4. Indebtedness of the Federal National Mortgage Association.

Contractor may elect to require Metro to deposit the accumulated Retainage in an interest bearing account in a bank, savings bank, trust company or savings association for the benefit of Metro. Interest on such an account shall accrue to Contractor.

If Metro incurs additional costs as a result of Contractor's exercise of any of the above-described options, Metro may recover such costs from Contractor by reduction of the Final Payment. Metro shall inform Contractor of all such accrued costs.

- 9.3.3. Payment for Material Stored Off Site. -- Payment for material stored off of the Site will not be allowed unless the payment for such material benefits Metro in terms of lead time, scarcity, schedule, etc. Metro has sole discretion as to what materials will be paid for in advance of delivery to or installation on Site. Proof of off-site material purchases (invoice or checks) and appropriate insurance coverage will be required for payment. Title to all equipment and materials shall pass to Metro upon payment therefore or incorporation in the Work, whichever shall first occur, and Contractor shall prepare and execute all documents necessary to effect and perfect such transfer of title. Contractor must provide to Metro written consent from Contractor's surety approving the advanced payment for materials stored off-site.

The maximum prepayment allowed by Metro shall be 75 percent of the actual fair market value of the item being considered. Metro shall be the sole judge of fair market value. Contractor shall protect stored materials from damage, and damaged or otherwise unacceptable materials, even though paid for, shall not be incorporated into the Work.

- 9.3.4. Other Conditions Precedent to Payment. -- It is a condition precedent to Contractor's rights to any payments under the Contract that all bills for labor and materials, including labor and materials supplied by or to Contractor, shall have been paid in full and, if requested by Metro, Contractor shall submit receipted invoices and/or lien waivers, as evidence of payment in full of all such accounts. As a further condition precedent to Contractor's right to any payments under this Contract, if requested by Metro, Contractor shall submit a claims release before any payment, and a final claims release stating Contractor has been paid in full prior to the Final Payment.

Payments to Contractor shall be conditioned upon Contractor complying with all provisions of this Contract regarding scheduling and progress reports submissions and upon Contractor furnishing all other information and data necessary to ascertain actual progress. Metro's determination that Contractor has failed or refused to furnish the required information, data, schedules or other reports shall constitute a basis for withholding all payments until the required information, data, revised schedules and diagrams, if necessary, and other reports are furnished.

- 9.3.5. Payment Does Not Imply Acceptance of Work. -- The granting of any progress payment, or the receipt thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof, and shall in no way lessen the liability of Contractor to replace unsatisfactory work or material, though the unsatisfactory character of such work or material may or may not have been apparent or detected at the time such payment was made.

- 9.3.6. Offset of Sums Due Metro from Contractor. - In addition to any retention rights allowed Metro under this Contract, it is mutually understood and agreed that Metro may, upon prior written notice to Contractor, offset from any payment otherwise due Contractor, as

much as may be necessary to protect and compensate Metro from any costs or expenses it may incur due to any breach of the Contract by Contractor, including applicable liquidated damages. Any sums so offset shall become the property of Metro.

9.3.7. Time of the Essence . — Time is of the essence for the performance of the Work under this Contract.

9.4. Substantial Completion.

When Contractor considers the Work to be substantially complete, Contractor shall submit to Metro a written notice that the Work is substantially complete and a punch list of items to be completed or corrected. Within a reasonable time after receipt of such notice, Metro and Architect will review the Work, including a physical inspection, to determine the status of completion. Should the Architect and Metro determine that the Work is not substantially complete:

9.4.1. Construction Manager will promptly notify Contractor in writing, giving the reasons therefor.

9.4.2. Contractor shall remedy the deficiencies in the Work, and thereafter send a second written notice of Substantial Completion to Metro.

The above-described procedure shall be followed until the Work is, in the opinion of Metro and Architect, substantially complete. At that point:

9.4.2.1. The Architect will prepare a Certification of Substantial Completion on AIA Document G704, accompanied by the approved punch list of items to be completed or corrected as verified and amended by the Architect.

9.4.2.2. Metro shall submit the Certificate of Substantial Completion to Contractor for signature. Contractor shall complete the items on the approved punch list.

9.5. Final Completion and Acceptance.

When Contractor considers the Work to be finally complete, Contractor shall submit written certification to Metro that:

9.5.1. Contract Documents have been reviewed.

9.5.2. Work has been inspected for compliance with Contract Documents.

9.5.3. Work has been completed in accordance with Contract Documents to include submission of record documents.

9.5.4. Equipment systems have been tested in presence of Metro and are operational.

9.5.5. Work is ready for final inspection.

Architect and Metro will promptly review the Work and include a physical inspection to verify the status of completion and shall inform Metro of the conclusions. Metro shall, within fifteen (15) days after receipt of Contractor's certification, either accept the Work or notify Contractor of the work yet to be performed on the Contract as outlined below.

Should the Architect and Metro consider that the work is incomplete or defective:

9.5.5.1. Construction Manager will promptly notify Contractor in writing, listing the incomplete or defective work.

9.5.5.2. Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to Metro that the Work is complete. Metro will then advise the Architect.

9.5.5.3. Architect and Metro will review and reinspect the Work.

The above-described procedure shall be followed until the Work is, in the opinion of Metro and Architect, finally complete. Contractor shall immediately thereafter prepare and submit Closeout Submittals as described below.

9.6. Closeout Submittals.

Contractor shall submit the following items, as applicable, with its request for Final Payment:

- 9.6.1. Evidence of Compliance with Requirements of Governing Authorities.
- 9.6.2. Project record documents in accordance with the Specifications.
- 9.6.3. Operation and maintenance data in accordance with the Specifications.
- 9.6.4. Warranties in accordance with requirements of various Specification sections and these General Conditions.
- 9.6.5. Extra stock and maintenance materials. Contractor shall submit receipts, signed by Metro, for the various specific items.
- 9.6.6. Evidence of payment and release of claims in accordance with the following section.
- 9.6.7. Consent of surety to Final Payment.
- 9.6.8. Certificates of insurance for products and completed operations in accordance with Article 11 of these General Conditions.
- 9.6.9. If Contractor is a "foreign contractor" as that term is defined in Subparagraph 14.3.6, complete documentation of Contractor's compliance with ORS 279.021.

9.7. Releases.

Contractor and each assignee under any assignment in effect at the time of Final Payment shall execute and deliver, at the time of application for Final Payment, as a condition precedent to Final Payment, a release in form and substance satisfactory to Metro, discharging and releasing Metro and the Architect of and from all liabilities, obligations and claims arising under this Contract.

In addition to the above-described release, Contractor shall:

- 9.7.1. Submit to Metro an affidavit certifying that Contractor has paid all federal, state and local taxes including excise, use, sales, and employee withholding taxes.
- 9.7.2. Deliver to Metro written releases of all rights to file claims against Metro or to file claims on any bonds in connection with the Contract, signed by each Subcontractor and Supplier who performed labor or furnished materials in connection with the work.
- 9.7.3. Deliver to Metro Contractor's written undertaking, with sureties acceptable to Metro:
 - 9.7.3.1. To promptly pay and obtain a release of claims on any bonds which may in the future affect the premises; and
 - 9.7.3.2. To defend, indemnify and save Metro harmless from any liability or expense because of any claim on any bond or any other claim related to the Contract or the Work.

9.8. Final Payment.

Upon application of Contractor and Contractor's completion of and compliance with all of the provisions of the above Paragraphs and settle of all claims arising from the agreement including claims that Metro may have against Contractor, Metro shall pay Contractor the balance of the Contract Amount subject to the availability of monies in the Construction Fund as described in

Paragraph 9.1 and less any previous payments, offsets and withholdings allowed Metro under this Contract and Retainage which has been returned to Contractor.

Acceptance of Final Payment by Contractor shall constitute a waiver of all claims of whatever nature which Contractor may have or allege to have against Metro arising out of or related to Work described in the Contract Documents.

9.9. No Waiver of Rights.

Neither the final review by Metro, nor any order or certificate for the payment of money, nor any payment for, nor acceptance of the whole or any part of the Work by Metro, nor any extension of time, nor any position taken by Metro shall operate as a waiver of any provision of this Contract or of any power herein reserved by Metro or any right to damage herein provided; nor shall any waiver of any breach of this Contract be held to be a waiver of any other or subsequent breach. All of Metro's remedies provided in this Contract shall be taken and construed as cumulative; that is, in addition to each and every other remedy herein provided; and Metro shall have any and all equitable and legal remedies which it would in any case have.

ARTICLE 10 SAFETY AND PROTECTION OF THE WORK

10.1. Safety Requirements.

10.1.1. Safety Generally. -- Contractor shall be solely and completely responsible for the safety of the Work and the Site, including, but not limited to, the safety of all persons and property involved in the Work at the Site at any time until Final Completion and Acceptance of the Work.

All Work shall be performed in full accordance with all applicable safety codes, laws, ordinances and requirements including, but not limited to, the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act as set forth in Title 29 of the Code of Federal Regulations, federal and state OSHA, Metro's insurance standards, and all other applicable safety codes. Where any of these are in conflict, the more stringent requirement shall be followed. Contractor's failure to thoroughly familiarize itself with the aforementioned safety provisions shall not relieve it from any requirements in the Contract Documents to comply with such safety provisions or from any penalties for failure to so comply.

Contractor shall inspect the Work and the Site daily and immediately correct any unsafe conditions. All job personnel shall be knowledgeable of and comply with the above safety requirements.

Contractor shall take all precautions to prevent the possibility of fire resulting from contract operations. Contractor shall provide properly maintained emergency fire extinguishing equipment of a readily available type and quantity as necessary to meet potential fire hazards.

10.1.2. Health and Safety Program-- Contractor shall develop, publish and implement the overall Health and Safety Program for the Project. Refer to Section 01500 of the Technical Specifications. This Program shall conform to all applicable codes. Contractor shall submit the written Health and Safety Program to Metro for review and comment within fourteen (14) days after the receipt of the written Notice To Proceed. The Program, as approved by Metro, shall subsequently be distributed to and implemented by Contractor's personnel as well as its Subcontractors and Suppliers. Contractor shall fully implement and comply with the approved Safety Program.

10.1.3. Health and Safety Officer. -- Prior to initiation of construction, Contractor shall designate in writing a Site Health and Safety Officer who shall be responsible for coordinating Contractor's Health and Safety Program. The individual so designated shall be the interface with the Construction Manager on matters relating to safety, and Contractors compliance with the approved Safety Program. Metro reserves the right to accept or reject the Health and Safety Officer designated by Contractor.

10.2. First Aid.

Contractor shall maintain on the Site during work operations, a member of its work force who is qualified in administering first aid to its personnel and shall have available in its job office the first aid equipment as required to meet all applicable safety codes. The names and credentials of qualified personnel will be submitted to the Construction Manager.

Contractor shall require or provide adequate clothing and protective gear for all personnel working on the job site. This includes but is not limited to hard hats; substantial boots or shoes, shirts with sleeves at all times; eye and ear protection, gloves, face masks; welding hoods, safety belts as required for the type of work being done.

10.3. Protection of Work, Persons and Property Against Damages.

Contractor shall protect the Work from damage due to construction operations, the action of the elements, including erosion due to normal and extraordinary weather conditions, the carelessness of other contractors, vandalism, or any other cause whatever until Final Completion and Acceptance of the Work.

Contractor shall protect all public and private property insofar as it may be endangered by operations of Contractor including adjoining lands, air and waterways, and shall be fully responsible for taking proper precautions for the prevention of accidents to persons and/or damage to such property at, on or near the Site.

All federal, state and local safety and environmental protection laws, rules and orders including fire codes, applicable to the Work to be done under the Contract, shall be obeyed, complied with and enforced by Contractor.

Contractor shall provide and maintain such guards, fences, barriers, signs, regulatory and warning lights, and other traffic control and safety devices adjacent to and on the Site as may be necessary to prevent accidents to the public and damage to property. Contractor shall also provide, place and maintain such lights as may be necessary for illuminating the said signs, guards, fences, barriers and other traffic and safety control devices.

Upon Final Completion and Acceptance of the Work, Contractor shall remove all temporary signs, lights, barriers, etc., from the Site.

ARTICLE 11 INDEMNIFICATION AND INSURANCE

11.1. Indemnification.

Contractor agrees that for purposes of the Oregon Tort Claims Act (ORS 30.260 through 30.300), neither Contractor, its officers, agents and employees nor any Subcontractor or Supplier of Contractor of any tier, or its officers, agents or employees, are agents of Metro. Contractor for itself and its officers, agents, employees and its Subcontractors and Suppliers of any tier and their officers, agents and employees will make no claim whatsoever against Metro for indemnification

pursuant to ORS 30.260 to 30.300 and Contractor agrees to hold Metro harmless and indemnify Metro from any such claims.

Contractor shall assume all responsibility for the Work and shall bear all losses and damages directly or indirectly resulting to Contractor, Metro, Architect, their officers, agents and employees, or to others on account of the character or performance of the Work, or accidents, unless such cause is due to the sole negligence of Metro or Architect.

Contractor shall assume the defense, if requested, indemnify and hold harmless Metro and Architect from all claims, liability, loss, damage, consequential or otherwise, and injury of every kind, nature and description, directly or indirectly resulting from activities in the performance of the Contract, the ownership, maintenance or use of motor vehicles in connection therewith, or the acts, omissions, operations, or conduct of Contractor or any Subcontractor or Supplier under the Contract or in any way arising out of the Contract, irrespective of whether fault is the basis of the liability or claim.

Any specific duty or liability imposed or assumed by Contractor, as may be otherwise set forth in the Contract Documents, shall not be construed as a limitation or restriction of the general liability or duty imposed upon Contractor by this Paragraph.

Such liabilities and losses from which Contractor shall indemnify and hold harmless the above-described indemnities shall include, but not be limited to:

- 11.1.1. Special activities by Metro to verify and/or expedite delivery of materials and those losses incurred by Metro as a result of any delays to Other Metro Contractors resulting from acts of Contractor or its failure to act.
- 11.1.2. Acceleration payments to Other Metro Contractors on the project or related projects resulting from Contractor falling behind the Construction Schedule for causes not entitling it to an extension of time under any provisions of the Contract Documents which cause other Metro Contractors to fall behind the Construction Schedule and who must then accelerate the performance of the work, as directed by Metro, in order to maintain progress.
- 11.1.3. Violations of the ordinances or regulations of Metro, any federal, state, county or city laws or order of any properly constituted authority in any manner affecting this Contract, in addition to any laws or regulations which might affect this Contract.
- 11.1.4. Any and all suits, actions, damages or claims of every name and description to which the above indemnified may be subjected or put by reason of injury to persons or property arising out of, in connection with, or incident to the execution of the work or resulting from acts or omissions on the part of Contractor, its Subcontractors, officers, employees or agents and all attorney's fees and court costs incident thereto.

11.2. Insurance.

11.2.1. Public Liability and Property Damage Insurance. — Contractor shall purchase and maintain, at the Contractor's expense, the following types of insurance covering the Contractor, its employees and agents.

A. Broad form comprehensive general liability insurance covering bodily injury, property damage, and personal injury with automatic coverage for premises/completed operations and product liability. The policy must be endorsed with contractual liability coverage.

B. Automobile bodily injury and property damage liability insurance.

Insurance coverage shall be on an occurrence basis with an annual aggregate limit of \$1,000,000.

Metro, its elected officials, departments, employees and agents shall be named as an ADDITIONAL INSURED. Notice of any material change or policy cancellation shall be provided to Metro thirty (30) days prior to the change.

C. Subcontractor's Insurance -- Contractor shall require that all of its Subcontractors and Suppliers of any tier provide insurance coverage and conditions identical to Contractor's insurance coverage, except that the policy limits of all Subcontractors' insurance coverage shall be at least \$1,000,000 combined single limit for each occurrence and in the aggregate.

11.2.2. Workers' Compensation and Employer's Liability Insurance — The Contractor, its subcontractors, and all employers working under this contract are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers. The Contractor shall provide Metro with certification of workers' compensation insurance including employer's liability of \$1,000,000.

11.2.3. Forms of Policies and Other Insurance Requirements. -- In addition to filing any other insurance certificates specified elsewhere in these Contract Documents, Contractor shall, within seven (7) days following Notice of Award of Contract, provide Metro two (2) certified copies of the policies of all insurance herein required to be obtained by Contractor except that Worker's Compensation Insurance may be evidenced by a Certificate of Insurance. At Metro's request, Contractor shall immediately deliver to Metro the receipts for payment of premiums on any or all such policies.

All policies of insurance and Certificates of Insurance shall be satisfactory to Metro. Approval of the insurance by Metro shall not relieve or decrease the extent to which Contractor or Contractor's Subcontractors and Suppliers of any tier may be held responsible for payment of any and all damages resulting from performance of the Work.

Each such policy or Certificate of Insurance shall bear an endorsement precluding its cancellation, expiration or any reduction in its coverage without giving to Metro at least sixty (60) days prior written notice. Contractor shall file with Metro two (2) certified copies of the required new or renewed policy or two (2) Certificates of Insurance for each such policy, as applicable, before the effective date of such cancellation, change or expiration.

If Contractor neglects to obtain or maintain in force any such insurance or to deliver such policy or policies, certificates and receipts to Metro, then Metro may, at its option, obtain and maintain such insurance. Contractor hereby appoints Metro its true and lawful attorney, to do all things necessary to obtain and maintain such insurance. All monies expended by Metro for such insurance shall be charged to Contractor and Metro may offset its costs in obtaining and/or maintaining such policies from sums due or to become due Contractor under the Contract or otherwise collect such sums from Contractor. Failure of Metro to obtain or maintain such insurance shall in no way relieve Contractor of any of its responsibilities under this Contract.

Contractor's failure to maintain any item of the required insurance shall be sufficient cause for termination or suspension of this Contract.

All insurance required shall be obtained through a company or companies having a policyholders surplus of at least ten (10) times the amount or limit of liability afforded by

such insurance company on policies issued for this Contract. Such company shall be duly and legally licensed to transact business in the state of Oregon and shall be acceptable to Metro. Said insurance shall be primary over any insurance or self-insurance of Metro.

11.3. Builder's All Risk Insurance.

11.3.1. Contractor, for the life of this Contract, shall effect and maintain Builders All Risk Insurance and fire insurance with extended coverage and malicious mischief coverage upon the structures on which the work of this Contract is to be done to 100 percent (100%) of the insurable value thereof, protecting: 1) Owner's interest; 2) Contractor's interest; and 3) the subcontractor's interests in the work. Contractor's interest and the subcontractor's interests, as used herein, means their property interests and the property interests of others for which they are responsible in the Project, in all materials and supplies entering into or used or destined for use therein, and in all expendable items of equipment which are used in or are incidental to but which do not become a part of the finished Project, located at the job site at the time of loss or damage. Such insurance shall not exclude coverage for landslides, collapse, explosion or loss due to the result of faulty workmanship.

11.3.2. Contractor and all subcontractors shall be responsible for any loss or damage to their machinery and apparatus and nonexpendable items of their equipment.

11.3.3. Contractor shall provide adequate fire protection equipment and safeguards to protect Owner's and Contractor's interests in accordance with Owner's insurance carrier's requirements.

11.4. Labor and Materials and Performance Bonds.

11.4.1 Contractor shall provide continuous coverage of a separate Performance Bond and a Labor and Materials Bond for the duration of the Contract. The Bonds shall be in the forms provided in these Contract Documents.

11.4.2 As an alternative to providing either or both of the bonds specified in this section 11.03, Contractor may provide a Letter or Letters of Credit, issued by a sound financial institution satisfactory to Metro. Such Letter or Letters of Credit shall be in a form acceptable to Metro. The Letter or Letters of Credit shall be in an amount equivalent to the bonds required under this section.

ARTICLE 12 MINORITY BUSINESS PROGRAM ARTICLE

Contractor shall comply with all pertinent provisions of Metro's Minority Business Program which are contained in Metro Code 2.04 and which are by this reference expressly incorporated herein and made a part of this Contract.

Contractor shall not replace a minority or women-owned business enterprise Subcontractor with another Subcontractor, either before Contract award or during Contract performance, without prior written approval of Metro. In replacing a minority or women-owned business Subcontractor, Contractor shall replace such minority or women-owned business Subcontractor with another certified minority or women-owned business Subcontractor or make good faith efforts to do so. Failure to do so shall constitute Contractor's default of this Contract, and Metro, at its option, may terminate this Contract under the procedures set out in Article 15.

Metro reserves the right, at all times during the period of this Contract, to monitor Contractor's compliance with the terms of the Minority Business Program and enforce the program if Contractor should fail to so comply. Contractor shall be bound by any and all representations made concerning its compliance with the program prior to Contract award and any and all representations made by Contractor concerning the replacement of a minority or women-owned business Subcontractor during the performance of this Contract.

ARTICLE 13 EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION REQUIREMENT

Contractor shall be certified as Equal Employment Opportunity Affirmative Action Employers by the City of Portland, Oregon, for the entire term of the Contract. Contractor's Subcontractors and Suppliers shall be certified prior to commencement of any of their Work on the Project and shall remain certified for the entire duration of the Contract.

ARTICLE 14 MISCELLANEOUS STATUTORY RESPONSIBILITIES OF CONTRACTOR

14.1. Generally

Contractor shall keep itself fully informed of and shall fully comply with all federal, state, regional and local laws, rules, regulations, ordinances and orders pertaining in any manner, to this Contract and those rules, regulations and orders of any agency or authority having jurisdiction over the work or those persons employed or engaged therein. Contractor shall pay all taxes, including federal, state, regional, county, city or taxes of any other governmental entity applicable to the work performed or materials provided under this Contract.

14.2 Environmental Laws.

Contractor shall fully comply with all federal, state and local laws, ordinances and regulations dealing with the prevention of environmental pollution and the preservation of natural resources and all amendments thereto. Contractor shall also fully comply with all rules, regulations and ordinances enacted or to be enacted by any federal, state or local agency dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the Contract. Such statutes, rules, regulations and ordinances shall include, but are not limited to those in 7 USCA Sections 136 to 136Y, 15 USCA Sections 2601 to 2629, 33 USCA Sections 1251 to 1376, 33 USCA Sections 1401 to 1445, 42 USCA Sections 300f to 300j-11, 42 USCA Sections 4321 to 4370a, 42 USCA Sections 4901 to 4918, 42 USCA Sections 6901 to 6991i, 42 USCA Sections 7401 to 7642, 42 USCA Sections 9601 to 9675, 29 USCA Sections 651 et seq., Oregon Administrative Rules Chapter 61, and Title 18 of the City of Portland Code.

Such agencies shall include, but not be limited to, the following:

FEDERAL AGENCIES

Agriculture, Department of
Forest Service
Soil Conservation Service
Defense, Department of
Army Corps of Engineers
Energy, Department of

Environmental Protection Agency
Health and Human Services, Department of
Interior, Department of
 Fish and Wildlife Service
 Heritage Conservation and Recreation Service
 Bureau of Land Management
 Bureau of Indian Affairs
 Water and Power Resource Service
 Office of Surface Mining
Labor, Department of
 Occupational Safety and Health Administration
 Mine Safety and Health Administration
Transportation, Department of
 Coast Guard
 Federal Highway Administration

STATE AGENCIES

Agriculture, Department of
Energy, Department of
Environmental Quality, Department of
Fish and Wildlife, Department of
Forestry, Department of
Geology and Mineral Industries, Department of
Human Resources, Department of
Land Conservation and Development, Department of
Soil and Water Conservation Commission
State Engineer
State Land Board and Division of State Lands
Water Resources Board, Department of
Bureau of Labor and Industries

LOCAL AGENCIES

City of Portland
Multnomah County
Metro
Planning Commissions (as applicable)

14.3. Other Provisions of Oregon Law.

14.3.1. Generally. -- The provisions set out in Oregon Revised Statutes Chapters 187 and 279, as amended or superseded, including the latest additions and revisions, are incorporated by reference as part of these Contract Documents. Such sections include, but are not necessarily limited to, ORS 187.010, 187.020, 279.021, 279.312, 279.314, 279.316, 279.318, 279.320, 279.334, 279.338, 279.348, 279.350, 279.352, 279.354, 279.355, 279.356, 279.359, 279.361, 279.365, and 279.400 through 279.435. Contractor shall fully comply with all applicable provisions of these statutes. The specific requirements of certain of these sections are set out below.

14.3.2. Payment to Subcontractors and Laborers. -- Pursuant to ORS 279.312, Contractor shall make payment promptly, as due, to all persons supplying such Contractor labor or material for the projection of the Work provided in this Contract. Contractor shall pay all contributions or amounts due the Industrial Accident Fund (IAF) from such Contractor,

Subcontractor or Supplier incurred in the performance of the Contract. Contractor shall not permit any lien or claim to be filed or prosecuted against Metro, the State, County, school district, municipality, municipal corporation, or subdivision thereof, on account of any labor or material furnished. Contractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

14.3.3. Failure to Make Payment for Labor or Services. -- Pursuant to ORS 279.314, if Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to Contractor or a Subcontractor by any person in connection with this Contract as such claim becomes due, Metro may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due Contractor by reason of such Contract. Metro's payment of such a claim in the manner authorized by ORS 279.314 shall not relieve Contractor or Contractor's surety from obligation with respect to any unpaid claims.

14.3.4. Hours of Work. -- Except as provided in ORS 279.334, no person shall be employed for more than eight (8) hours in any one day, or forty (40) hours in any one week, except in cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases the laborer shall be paid at least time and a half pay for all overtime in excess of eight (8) hours a day and for work performed on Saturday and on any legal holiday specified in ORS 279.334. Contractor shall furthermore comply with any applicable provisions of ORS 279.316, 279.334, 279.336 and 279.338.

14.3.5. Payment for Medical Care. -- Pursuant to ORS 279.320, Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of Contractor, of all sums which Contractor agrees to pay for such services and all monies and sums which Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying such service.

14.3.6. Requirements for Foreign Contractors. -- Pursuant to ORS 279.021, any "foreign contractor" awarded a public contract with a price exceeding \$10,000, shall promptly report to the Department of Revenue, on forms to be provided by the Oregon Department of Revenue, the total contract price, terms of payment, length of contract and such other information as may be required before Final Payment can be received on the public contract. Final Payment shall not be made until this provisions has been complied with.

For purposes of this paragraph, a "foreign contractor" is one who is not domiciled in or registered to do business in the state of Oregon.

14.3.7. Prevailing Wage. -- Except as limited by Oregon Revised Statutes, Contractor shall pay his/her workers and require his/her Subcontractors to pay its workers the prevailing rate of wage as required in ORS 279.350, and shall comply with all other requirements contained therein. The Appendix to this Contract contains a schedule of the existing prevailing rate of wage which may be paid to workers in each trade or occupation required to perform the Work, either by Contractor or its Subcontractors or any other person doing or contracting to do the whole or any part of the Work contemplated by this Contract, and such workers shall be paid not less than such specified minimum hourly rate of wage. The specifications for each subcontract shall include a copy of the prevailing wage schedule applicable to this project, and each subcontract shall include a clause regarding conformance to the schedule. In order to insure compliance of prevailing wage requirements, under Chapter 279, Metro will require that all payrolls be submitted on a schedule to be determined by Metro.

14.3.8. Sanitary Facilities. -- Contractor shall be responsible for all costs that may be incurred in complying with ORS 654.150 and the rules adopted pursuant thereto including, but not limited to, securing exemption or partial exemption from the requirements of ORS 654.150, (sanitary facilities at construction projects; standards, exemptions).

14.3.9. Royalty Payments -- Contractor shall promptly pay when due, all royalties owed to the State of Oregon or other governmental entity under ORS Chapter 274 or other provision of law.

14.4. Work to Comply with Codes.

All Work shall be in full compliance with any and all codes specified in the Contract Documents and all federal, state and local laws, ordinances, rules, regulations and orders and all amendments to such codes, laws, ordinances, rules, regulations and orders. If Contractor observes or discovers that any portion or portions of the Contract Documents are at variance with any such requirements, Contractor shall promptly submit a written Request for Clarification to Metro pursuant to Paragraph 3.2 which shall fully describe the variance. If Contractor performs Work contrary to codes, laws, ordinances, rules, regulations or orders without submitting such Request to Metro, Contractor shall assume full responsibility for such Work and shall bear all costs attributable thereto.

Persons authorized by Metro or any governmental body having jurisdiction over the Project may at any time enter upon any part of the work to ascertain whether Contractor is complying with such laws, ordinances, regulations or orders.

14.5. No Additional Compensation Allowed for Compliance with Laws.

The Contract Amount includes full compensation for compliance with all applicable laws, rule, regulations, ordinances and orders and all amendments thereto and Contractor shall not make claim for nor be allowed any additional compensation for such compliance.

ARTICLE 15 TERMINATION OR SUSPENSION OF THE WORK

15.1. For Default of Contractor.

If Contractor should be adjudged bankrupt, or if Contractor should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of insolvency, or if Contractor should refuse to or fail to supply enough properly skilled workers or proper materials for the efficient prosecution of the Work, disregard laws, ordinances or the instructions of Metro, or otherwise be in violation of any provision of the Contract, Metro may, without prejudice to any other right or remedy and after giving Contractor and Contractor's surety on the Performance Bond prior written notice, terminate the Contract or any portion of the Contract, which termination shall be effective ten (10) days after service of such notice. Such notice shall contain the reasons for the termination and shall state that unless, within ten (10) calendar days of service of the termination notice on Contractor, Contractor or its surety on the Performance Bond shall have cured or shall have made, in Metro's opinion, appropriate arrangements for prompt cure of all of the cause(s) for termination cited in the notice of termination, the Contract shall terminate.

Upon termination, Metro may take possession of the premises and of all materials, tools and appliances thereon as well as all other materials whether on the premises or not, for which Contractor has received partial payment, and finish the Work or the portion terminated by whatever method it may deem expedient.

In the event action as above indicated is taken by Metro, Contractor, or Contractor's surety, shall provide Metro with immediate and peaceful possession of all of the materials, tools and appliances located on the premises as well as all other materials whether on the premises or not, for which Contractor has received any progress payment. Upon termination, in the event that the surety does not complete the Contract, at the election of Metro, Contractor shall assign any and all subcontracts and material contracts to Metro or Metro's designee. Further, Contractor shall not be entitled to receive any further payment until the Work is completed. On completion of the Work, determination shall be made by Metro of the total amount Contractor would have been entitled to receive for the Work, under the terms of the Contract, had Contractor completed the Work. If the difference between said total amount and the sum of all amounts previously paid to Contractor, which difference will hereinafter be called the "unpaid balance," exceeds the expense incurred by Metro in completing the Work, including expense for additional managerial and administrative service, and all other costs, damages and expenses incurred by Metro due to Contractor's failure to complete the Contract, such excess will be paid to Contractor, with the consent of the surety. If, instead, the described expenses incurred by Metro exceed the unpaid balance, the amount of the excess shall be paid to Metro by Contractor or his/her surety. If only a portion of the Contract is terminated, this paragraph shall be deemed to apply to that portion of the Work only.

In addition to the above-mentioned right, Metro shall have the right, at its option, to suspend all or part of Contractor's performance under the Contract should any of the events occur which give Metro the right to terminate the Contract as above-described. In such event Metro shall give Contractor and Contractor's surety prior written notice of such suspension and Contractor shall stop or cause to stop all such work under the Contract immediately on receipt of such notice and shall not commence such work under the Contract again unless and until Contractor shall receive written notice from Metro to proceed. Metro shall not be responsible or liable to Contractor or others for any costs or expenses of whatever nature related to Contractor's failure to stop work as directed by Metro.

After receipt of a notice of termination or suspension, and except as otherwise directed by Metro, Contractor shall as regards those portions of the Contract terminated or suspended:

- 15.1.1. Stop work under the Contract on the date and to the extent specified in the notice of termination or suspension.
- 15.1.2. Place no further orders or subcontracts, or suspend the same, as applicable, for materials, services or facilities except as necessary to complete the portion of the work under the Contract which is not terminated or suspended.
- 15.1.3. Terminate or suspend, as applicable, all orders and subcontracts to the extent that they relate to the performance of such work terminated or suspended.

Metro may, at its discretion, avail itself of any or all of the above rights or remedies and its invoking of any one of the above rights or remedies will not prejudice or preclude Metro from subsequently invoking any other right or remedy set forth above or elsewhere in the Contract.

None of the foregoing provisions shall be construed to require Metro to complete the Work, nor to waive or in any way limit or modify the provisions of the Contract relating to the fixed and liquidated damages suffered by Metro on account of failure to complete the Project within the time prescribed.

15.2. Termination in the Public Interest.

It is hereby agreed that Metro has the right to terminate the Contract in whole or in part when Metro considers it to be in the public interest.

In the event the Contract is terminated as being in the public interest, Contractor shall be entitled to a reasonable amount of compensation for preparatory work and for all reasonable costs and expenses arising out of the termination, excluding lost profits.

In the event of termination under this Paragraph, the amount to be paid to Contractor shall be determined on the basis of the Schedule of Values in the case of any fully completed separate item or portion of the Work for which there is a separate or unit contract price and in respect to any other work under the Contract, Contractor will be paid a percent of the Contract price equal to the percentage of the work completed.

***** END OF SECTION *****

**SECTION 00800
SUPPLEMENTARY CONDITIONS**

PART I—GENERAL CONDITIONS:

All conditions as set forth in the General Conditions and Division I which are applicable to all contractors shall apply to such extent that they are not in conflict with these Supplementary Conditions. In the event of such conflict, these Supplementary Conditions shall take precedence.

TIME OF COMPLETION:

Time is of the essence for this Contract due to the possible impairment of the existing fire protection system during construction. Work under this Contract shall commence starting November 3, 1997 with substantial completion on or before January 31, 1998 when the demands upon the facility are expected to be at, their lowest ebb. Contractor confirms and accepts that the Contract Time of ninety (90 days) within the dates indicated is a reasonable period for performance of all the work.

ADJUSTED PAYMENTS FOR DELAY

Metro and Contractor agree that Metro will be damaged if Contractor fails to meet the substantial completion date. Metro may collect liquidated damages of \$500 per day for each and every day that completion of the project extends beyond the completion date stated above.

SEQUENCING AND SCHEDULING OF CONSTRUCTION:

Coordination of the work is critical to the on-going operation of the transfer station and shall be sequenced and scheduled such that no conflicts will occur with this operation. The transfer station operations are conducted between the hours of 4:30 a.m. and 7:30 p.m. seven days per week. Contractor shall schedule all work to take place during non operational hours between 7:30 p.m. and 4:30 a.m. and all supplies, tools, equipment, staff and debris shall be removed upon completion of each work day to ensure safe operation of the facilities on-going operations.

Removal of the existing sprinkler system and installation of the new sprinkler system shall be phased to minimize the time and area that is left without sprinkler protection at any one time. Contractor shall follow the Factory Mutual Red Tag System to control the sprinkler impairments.

The Contractor and all Subcontractors and their personnel shall be required to pay special attention to fire safety since the facility takes in combustible materials that will be left in the facility at night during Contractor working hours.

Owner will designate an area for storage of all Contractor material and equipment prior to start of construction that will not interfere with station operations

Contractor shall immediately move any materials, equipment or debris that interferes with the station operations when so directed.

Contractor shall protect existing structures and equipment from damage and shall make repairs to the satisfaction of Metro wherever any damage may occur.

EXPLANATION OF SPECIFICATIONS:

COMPLIANCE WITH STANDARD AND INDUSTRY SPECIFICATIONS:

Any material or operation specified by reference to published specifications of a manufacturer or published specifications of American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), Federal Specifications (FS), industry association, applicable building code, or the like shall, unless otherwise indicated, comply with requirements of the current specification or standard listed (in effect at time of bid opening). In case of a conflict between referenced specification or standard and Project Specifications, Project Specifications shall govern. In case of a conflict between referenced specifications or standards, the one having the more stringent requirements shall govern.

MANUFACTURER'S DIRECTIONS:

All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in strict accordance with manufacturer's printed directions, unless otherwise specified. Furnish four bound copies of manufacturer's printed specifications for installation, application, use or maintenance to Owner.

EQUIPMENT MANUALS:

Upon completion of Work, Contractor shall deliver to Owner four (4) complete sets (1 bound copy of each manual per set) of equipment installation, maintenance, and operating instruction manuals related to Work under the Contract. Include a complete parts list and applicable warranties and certifications with same, as well as name and address for source of material (for reorder or service order purposes). Include all such items in each set in vinyl three-ring binder, complete with indexing and tabbing. Deliver stated manuals at completion of the Work.

CONTRACTOR'S AND ARCHITECT'S MEETINGS: (Also see Section 4.0)

Contractor shall call and conduct regularly scheduled weekly meetings with his concerned subcontractors and major suppliers to discuss overall and detailed progress of Work.

In addition if/when so requested by Owner or Engineer, Contractor shall attend and cause his concerned subcontractors and major suppliers to attend any/all meetings called by Owner or Engineer for similar purposes.

SAFETY AND HEALTH PRECAUTION:

Provide warning signs, flagger(s), and other safety and health precautions which may become necessary or required for protection of work already in place or for protection of the public, Owner's personnel, and construction personnel, including Owner's and Architect's Representatives engaged on the Project. State of Oregon Workmen's Compensation Board Safety Codes for Construction Work and Federal Occupational Safety and Health Standards of the Occupational Safety and Health Act of 1970 (OSHA), all as applicable, form a part of these Specifications. See Construction Facilities and Temporary Controls Section 01500.

FIRE PROTECTION:

Take all precautions to prevent the possibility of fire resulting from construction operations. Particularly avoid hazardous accumulations of rubbish and unsecured flammable sheeting used in and around the Project site when so specifically required by Fire Marshal having jurisdiction. Provide emergency fire extinguishing equipment of adequate type and quantity, readily available, and properly maintained. Do not store paint cans on the site except where specifically approved by Fire Marshal.

LIMITS OF SITE OCCUPANCY:

Limits of Project site occupancy defining storage, work, and access areas under the Contract shall be as indicated by the Owner and shall be respected by all trades engaged in the Work. See drawings showing contract limits and staging area.

TESTING AND PERMITS

All required testing shall be the responsibility of the Contractor, Contractor shall obtain and pay for all required permits with the exception of the general building permit, which the Owner will provide and pay for by the beginning of the contract.

PROTECTION OF WORK:

Properly protect shop or job site - fabricated items during transportation, job site storage, and after installation. Replace damaged work with new work. Deliver packaged materials in original unbroken packages or containers, all bearing brand and manufacturer's names.

DAMAGED SUSTAINED DURING CONSTRUCTION:

Replace and restore to new condition all materials and products damaged in the course of construction whether within or without the limits of construction.

***** END OF SECTION *****

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DIVISION 16 ELECTRICAL

- SECTION 16721—FIRE/LIFE SAFETY SYSTEM

SECTION 01010 SUMMARY OF WORK

1.1 SECTION INCLUDES

- A. This section describes the project and the work to be performed under this Contract. Detailed requirements and extent of work are stated in applicable Specification sections and shown on the Drawings.

1.2 ORGANIZATION AND INTERPRETATION OF CONTRACT DOCUMENTS

- A. Specifications and Drawings included in these Contract Documents establish the performance, quality requirements, location and general arrangement of materials and equipment, and establish the minimum standards for quality of workmanship and appearance.
- B. Specification sections have not been divided into groups for work of subcontractors or various trades. Should there be questions concerning the applicability or interpretation of a particular section or part of a section or Drawing, direct questions to the Engineer.
- C. A part of the work that is necessary or required to make each installation satisfactory and operable for its intended purpose, even though it is not specifically included in the Specifications or on the Drawings, shall be performed as incidental work as if it were described in the Specifications and shown on the Drawings.

1.3 DESCRIPTION OF PROJECT

- A. General
 - 1. The work covers construction work specifically shown on the Contract Drawings and described herein.
 - 2. This contract is for the removal and replacement of the existing dry pipe fire sprinkler system at the Metro South Transfer Station in Oregon City, OR. The existing system is a black iron pipe dry type system in a mostly open-air building consisting of approximately 40,300 square feet in area. The new dry type fire pipe sprinkler system will be galvanized both inside and out. The removal and replacement must take place during the off hours of operation from 7:30 p.m. to 4:30 a.m. and must be phased in such a way as to minimize the amount of time and area left without sprinkler protection at any one time.
 - 3. The Contractor shall, except as otherwise specifically stated in applicable parts of these Contract Documents, provide and pay for labor, materials, equipment, tools, construction equipment, facilities, and services necessary for proper execution, testing, and completion of the work.

1.4 PERMITS AND LICENSES

- A. Metro has applied for the general permits for the project. Permits should be available by date of Notice to Proceed.

- B. Contractor shall acquire and pay for all specialty permits such as electrical permits, mechanical permits, sewer and water connection permits, transportation permits, street closure permits, wage and hour regulations permits, and all other permits of a temporary nature relating to the construction of the project.

1.5 USE OF PREMISES

- A. Contractor shall schedule his work so as to maintain accessibility. See Supplementary Conditions for further clarification.

***** END OF SECTION*****

**SECTION 01025
MEASUREMENT AND PAYMENT**

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Bid Form: Section 00300
- B. Payments: Article 9 General Conditions
- C. Construction Schedules: Section 01310
- D. Supplementary Conditions
- E. Technical Specifications

1.2 MEASUREMENT OF QUANTITIES

- A. Payments will be made based on measurements of completed work in accordance with the United States Standard Measures, and as set forth in the applicable divisions of the Specifications unless otherwise noted.
- B. Volume of materials measured in the vehicles by which they are transported will require computing of the volume of the vehicles to the nearest 0.1 cubic yard for its capacity. Pay quantities will be determined by vehicle measurement at point of delivery with no allowance for settlement of material during transit. Loads shall be level and uniform. Payment will not be made for material in excess of the approved capacity of the vehicle and deductions will be made for loads below approved capacity.
- C. Volume of concrete and masonry in structures will be measured according to neat lines as shown on the Plans or as altered on order by the Metro or Metro.
- D. Volume of earthwork, particularly excavation and embankment, will be computed by the average end area method of material in place or by other methods of equivalent accuracy.
- E. Contractor shall make all interim measurements, and determine all interim quantities and amounts of completed work done under the Contract. At the time measurements are made for quantity determination, the Engineer or Metro shall be present to verify such measurements. From quantity figures so ascertained, it will be Contractor's responsibility to prepare a monthly periodical estimate of the work accomplished to date. This estimate and application for payment shall be submitted to Metro each month for review not later than the date established at the preconstruction conference. The Engineer and/or Metro will take measurements and determine the final quantities for payment with Contractor present to verify such measurements.

1.3 SCOPE OF PAYMENT

- A. Quantities listed in the Bid do not govern final payment. Payments to the Contractor will be made only for actual quantities of Contract Items performed in accordance with terms of the Contract and for items of work actually performed under Change Order. Bid Item quantities are estimates only, being given only as the basis for comparison of Bids and Metro does not warrant, expressly or by implication that the actual amount of work will correspond therewith. The right to increase or decrease the amount of any class or portion of the work, or to make changes in the work required as may be deemed necessary is reserved by Metro as

provided elsewhere in the specifications. All prospective bidders should note that certain bid items may be included in the Bid Form to establish a unit price should use of those items become necessary during construction. Allowance will not be made for loss of anticipated profits or additional compensation should the use of these items be deemed unnecessary.

- B. The Contractor shall accept the compensation, as herein provided, in full payment for furnishing all materials, labor, tools and equipment necessary to the completed work, and for performing all work contemplated and embraced under the Contract; also for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work until the final acceptance by the Owner.

1.4 INITIAL APPLICATION FOR PAYMENT:

Prior to the submittal of the first Application for Payment, the contractor shall submit:

- A. Quality Control and Safety Plans
- B. List of subcontractors
- C. List of suppliers
- D. Schedule of Values
- E. Contractor's Construction Schedule
- F. Submittal Schedule
- G. List of Contractor's staff assignments
- H. Copies of building permits required to be procured by the Contractor
- I. Copies of licenses from governing authorities
- J. Certificates of insurance and insurance policies
- K. Performance and payment bonds

1.5 SCHEDULE OF VALUES: Refer to General Conditions Article 9.

- A. Contractor shall prepare the Schedule of Values as follows:

- 1. Prepare Line Item Breakdown for lump sum bid items.

Break Contract lump sum bid item amounts down in line items corresponding to each Division Specification Section and in enough detail to facilitate evaluation of Applications for Payment. Break subcontract amounts down into several line items. Round amounts off to the nearest hundred dollars, the total shall equal the Contract Amount.

Breakdown shall be balanced so that progress payments will not create a condition where sufficient funds are not available to complete the work. Contractor shall provide documentation substantiating the cost allocation if the Metro or Metro believes that the costs are unbalanced.

- 2. Arrange the Schedule of Values in a tabular form with columns to indicate the following for each line item:
 - a. Description
 - b. Related specification section
 - c. Name of subcontractor

- d. Name of manufacturer or fabricator
 - e. Name of supplier
 - f. Change Orders (numbers) that have affected value
 - g. Dollar value
 - h. Percentage of Contract sum to the nearest percent, adjusted to total 100 percent
3. Include the following on the Schedule of Values:
- a. Project name and location
 - b. Name of the Metro
 - c. Contractor's name and address
 - d. Date of submittal
- B. The Schedule of Values shall be consistent with:
1. Contractor's Construction Schedule
 2. Application for Payment form
 3. List of subcontractors
 4. List of products
 5. Schedule of submittals
- C. Submit the Schedule of Values to Metro for review and approval within thirty (30) days after issuance of Notice to Proceed, but no later than fifteen (15) days before the date scheduled for submittal to the initial Application for Payment. Update and resubmit the Schedule of Values when Change Orders or Construction Change Directives change the Contract Sum.
- D. Upon acceptance of the Schedule of Values by Metro, it shall be used as a basis for all requests for partial payment.

1.6 APPLICATION FOR PAYMENT

A. Application for Payment Format

- Use the AIA Document G702 and Continuation Sheets G703 as the form for the application. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made. Include amounts of Change Orders and Force Account Work issued prior to the last day of the period covered by the application. Show items in accord with Article 8 of the General Conditions. Each item in the Schedule of Values and Applications for Payment shall be complete including total cost and share of overhead and profit.
- B. For each item where an Application of Payment includes products purchased or fabricated and stored, but not installed, provide separate line items for initial cost and installed value.
 - C. Temporary facilities and items not a direct cost of Work-in-place may be shown either as separate line items or distributed as general overhead expense.
 - D. Where Maintenance Manuals are required, no more than 50% of the applicable portion of the lump sum bid shall be paid prior to receipt of a rough draft of the Maintenance Manual and no more than 90% of the final payment shall be made before receipt of the Maintenance Manual complete.

1.7 WAIVERS OF LIEN

With each application, submit waivers of lien from every entity who may file a lien arising out of the Contract and related to the Work covered by the payment. Submit partial waivers on each item for the amount requested, prior to deduction for retainage. When an application shows completion of an item, submit final or full waivers.

1.8 FINAL PAYMENT APPLICATION

Prior to submitting the application, the contractor shall submit:

- A. Written certification of Final Completion approved by Metro
- B. Completion of Project Closeout requirements as outlined in the General Conditions
- C. Completion of items specified for completion after Substantial Completion
- D. Transmittal of required Project construction records to Owner
- E. Occupancy permits
- F. Warranties and maintenance agreements
- G. Maintenance instructions
- I. Meter Readings
- J. Final cleaning
- K. Application for reduction of retainage and consent of surety
- L. Punchlist of work remaining and corrections required

1.9 CHANGE ORDER AND FORCE WORK PROCEDURES

Refer to Article 8 in Section 00700 General Conditions.

***** END OF SECTION *****

**SECTION 01040
COORDINATION AND SITE CONDITIONS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Requirements for coordinating and sequencing the work under the Contract and requirements regarding existing site conditions.
- B. Requirements for cutting and patching of new and existing work.

1.2 JOBSITE COORDINATION

- A. The Contractor is responsible for overall coordination of the project.
- B. The project work shall be coordinated with the operation of the Metro South Transfer Station so as to minimize interruption to station operations and other problems during operations. Utility location and connections shall be coordinated with the proper utility companies. Replacement of any damaged material, including labor and materials, will be the responsibility of the Contractor.
- C. The site will be available seven days per week between the hours of 7:30 p.m. and 4:30 a.m. All materials, equipment and debris shall be removed and stored in designated areas during operation of the facility. Contractor will take all safety precautions that are standard to the industry and meet or exceed all OSHA standards, i.e.: signage, barricades, fall protection, etc. It is the contractor's responsibility to train and ensure compliance with the above policies for any and all of their personnel and/or subcontractors.

1.3 SITE CONDITIONS

A. Information On Site Conditions

- 1. General: Information obtained by the Owner regarding site conditions, topography, subsurface information, ground water elevations, existing construction of site facilities as applicable, and similar data will be available for inspection at the Metro Regional Center, Regional Environmental Management Department upon request. Such information is offered as supplementary information only. Neither the Engineer nor the Owner assumes any responsibility for its accuracy or completeness or for the Contractor's interpretation of such information.
 - a. Where measurement of quantities depends on elevation of existing ground, elevations obtained in the field will be compared with those shown on the Drawings. Variations of one-foot or less will be ignored, and the profiles shown on the Drawings will be used. Variations greater than one-foot will be compensated for by holding the shape of the drawn profile but shifting each end vertically upward or downward by the amount of the variation.
- 2. Control Points: Contractor shall establish vertical and horizontal survey control points on structures and improvements located in the vicinity of the work prior to beginning work, and shall check the points for movements when directed by the Engineer. Furnish Metro

with copies of survey notes for each survey and a copy of the layout of survey control points.

3. Contractor will provide all field engineering services and record changes in the location, or layout, of permanent structures on the Project Record Documents.

B. Existing Utilities

1. Location

- a. Known utilities and facilities adjacent to or within the work area are shown on the Drawings. The locations shown are taken from existing records and the best information available from existing utility plans; however, it is expected that there may be some discrepancies and omissions in the locations and quantities shown. Those shown are for the convenience of the Contractor only, and no responsibility is assumed by either the Owner or the Metro for their accuracy or completeness. Contractor's request for additional compensation or Contract time resulting from encountering utilities not shown will be considered as set forth in the General Conditions.
- b. Contractor shall exercise reasonable care to verify locations of utilities and facilities shown on the Drawings and to determine the presence of those not shown. Immediate and adjacent areas where excavations are to be made shall be thoroughly checked by visual examination for indications of underground facilities, and also checked with electronic metal and pipe detection equipment.

2. Contractor's Responsibilities

- a. Where Contractor's operations could cause damage or inconvenience to railway, telegraph, telephone, television, power, oil, gas, water, sewer, or irrigation systems, the Contractor shall make arrangements necessary for the protection of these utilities and services. Replace existing utilities removed or damaged during construction, unless otherwise provided for in these Contract Documents.
- b. Notify utility offices that are affected by construction operations at least 48-hours in advance. Under no circumstances expose any utility without first obtaining permission from the appropriate agency. Once permission has been granted, locate, expose, and provide temporary support for the utilities.
- c. Contractor shall be solely and directly responsible to owner and operator of such properties for damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of injuries or damage which may result from construction operations under this Contract.
- d. Neither Owner nor its officers or agents shall be responsible to Contractor for damages as a result of Contractor's failure to protect utilities encountered in the work.
- e. In event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental damage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration as promptly as possible and pay for repair. Prevent interruption of utility service unless granted by the utility owner.
- f. In the event Contractor encounters water service lines that interfere with trenching, obtain prior approval of the water utility, cut the service, dig through, and restore service to previous conditions using equal materials.

C. Interfering Structures

1. Take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground. An attempt has been made to show major structures

on the Drawings. While the information has been compiled from the best available sources, its completeness and accuracy cannot be guaranteed.

2. Protect existing structures from damage, whether or not they lie within limits of easements obtained by the Owner. Where existing fences, gates, buildings, or other structure must be removed to properly carry out work, or are damaged during work, restore them to original condition and to the satisfaction of property owner.
3. Contractor may remove and replace in equal or better than original condition, small structures such as fences, that interfere with Contractor's operations.

D. Field Relocation

1. During construction, it is expected that minor relocation of proposed facilities will be necessary. Make such relocation only by direction of the Engineer or Owner. If existing structures are encountered that prevent construction as shown, notify the Engineer or Owner before continuing with work so Engineer or Owner may make necessary field revisions.
2. Where shown or directed by and acceptable to the Engineer or Owner, provide relocation of existing facilities to include piping, utilities, equipment, structures, electrical conduit wiring, electrical duct bank, and other miscellaneous items. Use only new materials for relocation of existing facilities. Match materials of existing facilities, unless otherwise shown or specified. Perform relocation's to minimize downtime of existing facilities. Install new portions of existing facilities in their relocated position prior to removing existing facilities, unless otherwise accepted by Engineer or Owner. Comply with cutting and patching requirements in this section.

E. Easements

1. It is anticipated that required easements and permits will be obtained before construction is started. However, should the procurement of any easement or permit be delayed, schedule work so that operations are confined to areas where easements or permits have been obtained or are not required, until such time as easements and permits have been secured.
2. Before final payment will be authorized, Contractor shall furnish the Owner written releases from property owners or public agencies where side agreements or special easements have been made, or where Contractor's operations have not been kept within the Owner's property.
3. In the event Contractor is unable to secure written releases, inform the Owner of the reasons.
 - a. Owner or its representatives will examine the site, and Owner will direct Contractor to complete work that may be necessary to satisfy terms of the easement.
 - b. Should Contractor refuse to do this work, Owner reserves the right to have it done by separate contract and deduct the cost of same from the Contract amount, or require the Contractor to furnish a satisfactory bond in a sum to cover legal claims for damages.
 - c. When Owner is satisfied that work has been completed in agreement with the Contract Documents and terms of easements, the right is reserved to waive the requirement for written release if:
 - 1) Contractor's failure to obtain such statement is due to the grantor's refusal to sign, and this refusal is not based upon any legitimate claims that Contractor has failed to fulfill the terms of the easement, or

2) Contractor is unable to contact or has had undue hardship in contacting the grantor.

F. Salvage of Materials

Contractor shall salvage materials for Contractor's use where shown on Drawings.

G. Connecting to Existing Facilities

Unless otherwise shown or specified, determine methods of connecting new work to existing facilities, and obtain Metro's review and acceptance of connections.

1. Determine location, elevation, nature, materials, dimensions, and configurations of existing facilities where necessary for connecting new work.
2. Inspect existing record drawings and shop drawings, conduct exploratory excavations and field inspections, and conduct similar activities as needed.
3. Shutdown of Owner's existing facility prior to connection, if necessary, shall be by Owner or as specified.

1.4 PROJECT MEETINGS

A. Preconstruction Conference

Within 5 days following execution of Contract but before start of work at the site, Contractor shall meet with Owner and Metro for discussion of scheduling requirements, procedures for handling shop drawings and other submittals, processing application for payment, and establishing a working understanding among the parties. The conference shall be attended by:

1. Contractor's office representative.
2. Contractor's general superintendent.
3. Subcontractors' representatives whom Contractor may desire or Metro may request to attend.
4. Metro's representatives.
5. Owner's representatives.

B. Progress Meetings

Contractor will schedule regular progress meetings to be held once every week to review work progress, schedules, and other matters needing discussion and resolution.

1.6 SEQUENCE OF WORK

A. Operation and Shutdown of Existing Facilities

1. Continuous operation of Metro South Transfer Station operations is of critical importance
 - a. Schedule and conduct activities to minimize disruption operations and to enable existing facilities to operate, unless otherwise specified.
 - b. Conduct work outside normal working hours as may be necessary to meet project schedule and avoid undesirable conditions.

B. Modifications to Existing Facilities

Where existing facilities are to be modified during the course of work, obtain Engineer's and Owner's review and acceptance of submittals for temporary shutdown, demolition, modification, corrections between new and existing work, and other related work. Conform to other sections as applicable.

C. Milestone Completion Dates for Portions of Work

Refer to the Proposal for completion dates and Section 01310 Construction Schedule for detailed scheduling requirements.

D. Time of Work

No work shall be done between 4:30 a.m. and 7:30 p.m. without the written permission of the Owner. However, maintenance or emergency work during these hours may be done without prior permission.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

A. General

1. Execute cutting (including excavating), fitting, or patching of work, required to:
 - a. Make the several parts fit properly.
 - b. Uncover work to provide for installation of specified work.
 - c. Remove and replace defective work or work not conforming to requirements of Contract Documents.
 - d. Remove samples of installed materials as specified for testing.
 - e. Install specified work in existing construction.
2. Perform the following upon written instruction of Engineer:
 - a. Uncover work to provide for Engineer's observation of covered work.
 - b. Remove samples of installed materials for testing.
 - c. Remove work to provide for alteration of existing work.
3. Contractor shall not, without written consent of Engineer or Owner:
 - a. Cut or alter work of another contractor.
 - b. Cut structural or reinforcing steel.
 - c. Endanger existing or new structures or facilities.
 - d. Shut down or disrupt existing operations.
4. Materials for replacement of work removed shall comply with applicable sections of these Specifications for corresponding type of work to be done.
5. Provide all tools and equipment required to accomplish cutting and patching.

B. Inspection and Preparation.

1. Inspect existing conditions of work, including elements subject to movement or damage during cutting, patching, excavating, and backfilling.
2. After uncovering work, inspect conditions affecting installation of new products.

C. Procedures

1. Execute fitting and adjustment of products to provide finished installation to comply with specified tolerances and finishes.
2. Execute demolition as specified in Section DEMOLITION.
3. Execute excavating and backfilling as specified in Section EARTHWORK.
4. Restore work that has been cut or removed; install new products to provide completed work in accordance with specified requirements.
5. Refinish entire surfaces as necessary to provide an even finish.
 - a. Refinish continuous surfaces to nearest intersection.
 - b. Refinish entire assemblies.
6. Restore structures and surfaces damaged that are to remain in the completed work including concrete-embedded piping, conduit, and other utilities.
7. Make restorations with new materials and appropriate methods as specified for new work of similar nature; if not specified, use best-recommended practice of manufacturer or appropriate trade association.
8. Restore damaged work so there is a secure and intimate bond or fastening between new and old work. Finish restored surfaces to such planes, shapes, and textures that no transition between new and old work is evident in finished surfaces.

PART 4 PAYMENT

4.1 LUMP SUM BID AND UNIT PRICES

Payment for work in this section will be included as part of the lump sum bid or the unit price bid amounts stated in the Proposal.

***** END OF SECTION *****

SECTION 01092 REFERENCE STANDARDS

1.1 SUMMARY

These specifications and the Contract Drawings list many of the construction industry organizations, professional and technical associations, societies and institutes, and government agencies issuing, promoting, or enforcing standards to which references may be made in the Contract Document, along with the abbreviations commonly used for those references. Also included are certain general requirements for the use of industry standards specified, and for application of the standards in quality control.

1.2 USE OF REFERENCE STANDARDS

- A. Work specified by reference to the published standard or specification of a government agency, technical association, trade association, professional society or institute, testing agency, or other organization shall conform to or surpass the minimum standards of quality for materials and workmanship established by the designated standard or specification.
- B. Where so specified, products or workmanship shall also conform to the additional prescriptive or performance requirements included within the Contract Document to establish a higher or more stringent standard of quality than that required by the referenced standard.
- C. Where the specific date or issue of the standard is not included with the reference to the standard, the edition, including all amendments published and available on the first published date of the Invitation to Bid, shall apply.
- D. Where two or more standards are specified to establish quality, the product and workmanship shall conform to or surpass the requirements of both.
- E. In case of conflict between referenced standards, the more stringent shall apply.
- F. Where both a standard and a brand name are specified for a product in the Contract Document, the proprietary product named shall conform to or surpass the requirements of the specified reference standard. The listing of a trade name in a Contract Document shall not be construed as warranting that such product conforms to the respective reference standard.
- G. Copies of standards:
 - 1. Copies of applicable referenced standards have not been bound in this Contract Document.
 - 2. Where copies of standards are needed by the Contractor for superintendence and quality control of the work, obtain a copy or copies directly from the publication source and maintain in an orderly manner at the jobsite, available to the Contractor's personnel, subcontractors, Owner, and Metro.
 - 3. Submittals: Submit for approval the requests to use products conforming to printed standards or publications with a different publication date from that effective under the Contract. Clearly indicate the changes in product or workmanship quality involved in the proposed change, if any, and reasons for the request.

* * * END OF SECTION * * *

**SECTION 01310
CONSTRUCTION SCHEDULES**

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Summary of Work: Section 01010
- B. Coordination and Site Conditions: Section 01040
- C. Shop Drawings, Project Data and Samples: Section 01340
- D. Schedule of Values: Section 01025

1.2 PRELIMINARY SCHEDULE

- A. The Contractor shall submit within five (5) days after Notice to Proceed, a preliminary project schedule in graphic form (e.g. bar chart) showing proposed schedule of anticipated progress to include all major operations and items and time of anticipated completion of major portions of the work.
- B. The preliminary schedule shall be accompanied by a narrative work plan that will include the following information:
 - 1. Manpower levels planned to achieve duration's shown in the preliminary schedule.
 - 2. Equipment utilization planned for each activity taking place on site.
 - 3. Identification of work planned for overtime or additional shifts.
 - 4. Plans for wet weather work.
 - 5. Identification of critical work or supply activities.
- C. The preliminary schedule will be reviewed within seven (7) days by the Metro and Metro. Comments will be forwarded to Contractor for his consideration and action where appropriate. A revised preliminary schedule shall be resubmitted by the Contractor three (3) days after receiving Metro and Metro comments, if so required.

1.3 CONSTRUCTION SCHEDULE

- A. The Contractor shall submit within 25 days of Notice to Proceed an overall project schedule in both graphic and tabular form.
- B. The schedule shall utilize an approved standard Critical Path Method (CPM) computer program using either the Arrow Diagram Method (ADM) or Precedence Diagram Method (PDM) which will furnish a mathematical analysis and identification of the critical path.
- C. Reports to be furnished with the CPM schedule will include:
 - 1. Work Item Number in ascending order
 - 2. Total Float/Early Start in ascending order
 - 3. Early Start in ascending order
 - 4. Late start in ascending order
 - 5. Predecessor report

6. Successor report

- D. The graphic schedule will be of a format suitable for use by the Contractor and acceptable to Metro.
- E. The work activities in the CPM will provide a complete sequence of construction, as well as submittal and delivery activity.
- F. Information shown for each activity on the CPM will include description, responsibility, duration, float, early and late start dates, early and late finish dates, preceding and succeeding activities and relationships, percentage complete or remaining duration.
- G. The Construction Schedule will be accompanied by a narrative similar in format provided in the Preliminary Schedule reflecting any refinements or changes to the planning process.
- H. The Metro and Metro will review the Construction Schedule and provide comments to the Contractor for appropriate action potentially including revision and resubmittal. Once schedule is determined acceptable by Metro, this schedule will be designated the initial or zero progress schedule.
- I. Contractor will update the CPM and submit two copies to Metro on a monthly basis. CPM will be accompanied by a narrative report that will include:
 - 1. Description of work completed during the past month.
 - 2. Discussion of problem areas including current and anticipated delay factors.
 - 3. Description of schedule revisions made for this month's update.
 - 4. Actions planned to mitigate delays or to facilitate construction progress.
- J. Contractor will provide electronic copy on computer diskette of the approved progress schedule and each monthly update that will function with approved CPM software program to allow Metro to analyze impacts on the schedule as required.

1.4 CONTRACTOR TO SCHEDULE WORK

Contractor shall keep the Metro informed sufficiently in advance of the time and places at which he intends to work in order that the necessary measurements for record and payment may be made with the minimum of inconvenience and delay to both the Metro and the Contractor.

1.5 TWO WEEK SCHEDULE

Provide to Metro, on a weekly basis, a two week schedule using bar chart format in sufficient detail to plan and properly coordinate upcoming work.

1.6 SUBMITTALS BY CONTRACTOR

- A. Submit Preliminary Schedule prior to starting work.
 - 1. Metro and Metro will review overall schedule and may return reviewed copy with suggested revisions within 7 days after receipt.

2. If required by the Metro, contractor shall resubmit a revised preliminary schedule within 3 (three) days after return of reviewed copy.
- B. Submit initial CPM Construction Schedule within 25 days after Notice to Proceed. Include a cash flow summary based on a monthly estimate of revenue with the initial project schedule.
- C. Submit monthly updated CPM Construction Schedule by the seventh day of each month. Updated schedule shall reflect actual progress of the project to within 5 (five) working days prior to submittal.
- D. Submit a Two Week Schedule every week. Deliver to Metro at the weekly Progress Meeting.
- E. Submit six copies of schedules to Metro, both initial submittals and revised or updated schedules.

1.7 DISTRIBUTION BY CONTRACTOR

Distribute copies of reviewed schedules to:

1. Job site file
2. Other contractors
3. Subcontractors
4. Other concerned parties

***** END OF SECTION *****

SECTION 01340
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Coordination and Site Conditions: Section 01040
- B. Construction Schedules: Section 01310
- C. Contractor's Quality Control: Section 01400
- D. Project Record Documents: Section 01720

1.2 SUBMITTAL REGISTER AND SCHEDULE

- A. Contractor will review the Contract Documents and identify all requirements for submittal of information to the Engineer and Metro. Contractor will arrange the listing of these submittals in order by section and paragraph beginning with the General Conditions, Supplementary Conditions and finally, the Technical Specifications in numerical order by section and paragraph. This document will be identified as the Submittal Schedule and will include the following information about each required submittal.
 - 1. Specification Section and Paragraph
 - 2. Transmittal Number (leave blank until submittal is made)
 - 3. Description
 - 4. Responsibility (Contractor, Sub or Supplier)
 - 5. Schedule Date - Date on which Contractor plans to submit
 - 6. Approval Required - Date approval is required to deliver the material by required date.
 - 7. Material Required - Date material is needed on-site.
 - 8. Submittal Date - Leave blank until submittal is actually made.
 - 9. Review Status - No Exceptions Taken, Make Corrections Noted, Rejected, Revise and Resubmit, Submit Specified Item.
 - 10. Action Date - Date on which Metro actually returned the reviewed submittal to Contractor.
 - 11. Comment - Cross reference on notes as required.
- B. The Submittal Schedule will be submitted no later than 10 days after Notice to Proceed and should be coordinated with the information presented in the Construction Schedule.
- C. Sufficient lead time should be allowed for review and approval by Metro. Allow twenty one (21) days for review and approval. Specifically identify those submittals that will require an expedited review process.
- D. The Submittal Schedule upon acceptance by Metro will form the basis for the Submittal Register. Contractor will keep track of submittals as submitted by sequential number. Contractor will update his submittal Schedule with information from the Submittal Register on a monthly basis and furnish a copy to Metro.

1.3 SUBMITTALS

- A. All submittals including shop drawings, data and samples shall be submitted attached to a form approved by Metro. Location by drawing number and paragraph of specification shall be shown on the form for the product or material being submitted. Each transmittal shall be assigned a unique number in sequential order.
- B. Shop drawings shall be submitted and reviewed in the following manner:
1. Contractor shall review, stamp with his approval and submit postpaid with such promptness as to cause no delay in his work or in that of any other contractor, the required number of copies of all shop drawings, schedules, data, and samples required for the work of the various trades determined necessary by the Metro, required in the General Conditions and/or described elsewhere in the Project Specifications.
 2. Shop drawings shall establish the actual detail of all manufactured or fabricated items. All shall be drawn to scale and be completely dimensioned.
 3. Sheet sizes of shop drawings shall be in multiples of 8 1/2 by 11 inches, preferably not exceeding 22 by 34 inches unless there is a special requirement for larger size sheets.
 4. Provide on each drawing a clear space for the Metro's review and approval stamps and comments.
 5. Four (4) copies of shop drawings, manufacturer's literature, brochures, catalog cuts, and other pertinent printed matter or data shall be submitted in addition to the number of copies Contractor wishes returned to him.
 6. Contractor shall obtain and provide such number of prints or copies of drawings as is required for his field distribution.
 7. Shop drawings may be submitted to the Engineer in the form of a reproducible transparency, along with one blackline or blue line print. Mylars are preferred.
 8. The Engineer shall review the shop drawings with reasonable promptness and will affix the Shop Drawing Review Stamp with notations thereon indicating "No Exceptions Taken", "Make Corrections Noted", "Revise and Resubmit", "Rejected" or "Submit Specified Item".
 9. When shop drawings and/or other submittals are required to be revised or corrected and resubmitted, Contractor shall make such revisions and/or corrections and resubmit the drawings or other material in the same manner as specified above.
 10. It shall be Contractor's responsibility to clearly note on the shop drawings, and in writing specifically call to the Engineer's attention, any changes and deviations that vary from the Contract Drawings and Specifications. No review of the shop drawings by the Engineer shall relieve Contractor of full responsibility and at his own cost and expense to comply with the Contract Documents.
 11. If corrections are required, Contractor shall make the corrections required by the Engineer and file with him the same number of corrected copies as indicated above. Contractor shall direct specific attention in writing or, on resubmitted Shop Drawings to revisions other than the corrections requested on previous submissions. The Engineer will return to Contractor copies of drawings in the same manner and number as before.
 12. Shop Drawings shall give complete information necessary for the fabrication and installation of all component parts of the equipment, structure, facility, etc. In the case of

structural drawings, they shall include the location, type, and size and extent of all welds, if any are necessary. Manufacturer's standard details, catalogues, advertising literature, etc., shall not necessarily constitute all of the shop drawings required for any unit or facility. Additional shop details designed for the particular project shall be furnished when required by the Engineer. Shop drawings of electrical equipment shall include complete diagrams of electrical circuitry.

13. The Engineer's review of and placement of shop drawing review-stamp on any shop drawing is understood to be an acceptance of the character of the details and not a check of any dimension or quantity and will not relieve Contractor from responsibility for errors of any sort in shop drawings data or schedules, whether or not such errors are found by the Metro in his review of such details.
14. No changes will be made in any shop drawing after it has been reviewed except by the consent or direction of the Metro in writing.

C. Samples shall be submitted in the same manner as shop drawings.

1. Samples to be physical examples to illustrate materials, equipment or workmanship, and to establish standards by which completed work is judged.
 - a. Office samples: of sufficient size and quantity to clearly illustrate
 - (1) Functional characteristics of product or material, with integrally related parts and attachment devices.
 - (2) Full range of color samples.
After review the Metro will retain two samples and return the remainder to Contractor.
 - b. Field samples and mockups
 - (1) Erect at project site location acceptable to Metro.
 - (2) Construct each required sample or mock-up complete, including work of all trades required in finished work.
 - (3) Coordinate sampling of natural materials with Field Engineer.
2. If any test sample fails to meet the specification requirement, all previous approvals will be withdrawn and such materials or equipment, which fail the testing, shall be subject to removal and replacement by Contractor with materials or equipment meeting the specification requirement.
3. Affected finish work shall not be commenced until the Engineer has given written approval for the field samples.

1.4 CONTRACTOR RESPONSIBILITY

- A. All submittals shall be attached to a "Shop Drawing Transmittal" form approved by the Engineer.
- B. Contractor shall review and approve shop drawings before submittal. Submittal directly from Subcontractor or Suppliers will not be accepted.
- C. By approving and submitting Shop Drawings and Samples, Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so, and that he has checked and coordinated each Shop Drawing with the requirements of the Work and of the Contract Documents and that there is no conflict with other submittals that may affect the work of another contractor of Metro.

- D. A copy of each approved shop drawing and each approved sample shall be kept in good order by Contractor at the job site and shall be available to the Engineer.

1.5 LIMITATION

- A. Two submittals (initial and revised) of each item requiring samples and/or shop drawings will be reviewed by the Engineer in the regular course of the Contract. However, all subsequent reviews of the same item over two will be reviewed at the expense of Contractor unless the right to an additional review without charge was previously approved in writing by the Engineer. Contractor will be billed by Metro at the Engineer's current established rates.

1.6 GENERAL PRODUCT REQUIREMENTS

- A. Unless otherwise specifically provided, all workmanship, equipment, and materials incorporated in the work covered by the Contract are to be new and of the best available grade of their respective kinds.
- B. For products specified only by reference standards, select any product meeting standards, by any manufacturer.
- C. For products specified by naming one or more products, but indicating the option of selecting equivalent products by stating "or equivalent" after specified product, Contractor must submit request, as required for substitution, for any product not specifically named.

1.7 SUBSTITUTIONS REVIEW AND APPROVAL PROCEDURE

- A. Metro will consider formal requests from Contractor for substitution of products in place of those specified. Provide a complete list of all products that are proposed for installation as substitutions or product options. Tabulate list by each specification section. The Contractor shall pay any engineering expenses associated with review of substitution requests.
- B. Submit detail request for substitution in accordance with requirements for submittal of shop drawings and the following additional requirements.
 - 1. For construction methods
 - a. Detailed description of proposed method.
 - b. Drawings illustrating methods.
 - 2. Itemized comparison of proposed substitution with product or method specified.
 - 3. Data relating to changes in construction schedule.
 - 4. Accurate cost data on proposed substitution in comparison with product or method specified.
- C. In making request for substitution, Contractor shall specifically represent:
 - 1. He has personally investigated proposed product or method, and determined that it is equivalent or superior in all respects to that specified.
 - 2. He will provide the same guarantee for substitution as for product or method specified.

3. He will coordinate installation of accepted substitution into work, making such changes as may be required for work to be complete in all respects.
4. He waives all claims for additional costs related to substitution that consequently becomes apparent.
5. Cost data is complete and includes all related costs under his Contract.

D. Substitutions will not be considered if:

1. They are indicated or implied on shop drawings or project data submittals without formal request submitted in accord with Section 01340.
2. Acceptance will require substantial revision of Contract Documents or redesign by the Metro, without substantial benefit to Metro.

E. The above shall not be construed to mean that any substitution for materials and equipment will be allowed. The Engineer reserves the right to reject and disapprove any request he deems irregular or not in compliance with the Specifications.

***** END OF SECTION *****

**SECTION 01400
CONTRACTOR'S QUALITY CONTROL**

PART 1 GENERAL

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. General Conditions - Article 7 Control and Quality of work and Material.
- B. Technical Specifications pertaining to the work.

1.2 RESPONSIBILITIES

- A. Contractor is primarily responsible for quality control and will provide for sufficient supervision and control measures on a daily basis to ensure that the Work is completed in accordance with the Contract Documents.
- B. Metro and the Engineer are responsible for quality assurance. Their activities in no way relieve Contractor of his quality control responsibilities.

1.3 REQUIREMENTS

- A. Quality Control Plan - Contractor will prepare and submit a plan of action to establish and maintain a Quality Control Program. The program as a minimum will contain:
 - 1. The quality control organization chart beginning with the responsible corporate officer.
 - 2. The names and qualifications of personnel selected to implement the program on-site.
 - 3. Authority and responsibility of the quality control staff.
 - 4. A breakdown of the schedule of work that includes proposed inspections, tests or other means of controlling the quality of work for each phase.
 - 5. Provides controls for each phase of work by establishing a system of inspections as follows:
 - a. Preparatory Inspection - This inspection will be conducted by Contractor prior to starting any new phase of work. Contractor's Quality Control Manager will review the contract documents to ensure that required materials, equipment and procedures have been submitted and approved, are on-site and checked, that a reasonable, coordinated work plan has been prepared, that all previous work has been completed, inspected and tested as required. Contractor will schedule a preparatory conference with Metro to discuss the findings and to develop a material understanding on execution of the work and the quality standards that will be used. The inspection results and minutes of the conference will be documented by Contractor and a copy furnished to Metro. Subsequent to the conference, but prior to start of work, all involved working personnel and inspectors will be briefed on the work plan and the quality standards expected.
 - b. Initial Inspection - This joint inspection by Contractor and the Engineer/Metro Construction Manager will be made as soon as a representative portion of the work has been accomplished. This inspection will be repeated if new crew member(s) are assigned to the work or if acceptable standards of workmanship are not being met. Contractor will, as a minimum, document this inspection in the daily Quality Control Report.

- c. Follow-up Inspections - Contractor will perform daily inspections of the work until completion.
6. Establish a system of Quality Control Deficiency Reports to report deficiencies in the work or materials to determine appropriate correction and to track the execution of the correction.

B. Documentation

1. Daily Quality Control Report - This report will be furnished by Contractor in a suitable format on a daily basis over the signature of the Quality Control Manager or on-site Quality Control Representative. It shall be delivered to the on-site Metro Representative and/or Metro by 10:00 a.m. on the following work day, and will contain as a minimum:
 - a. Weather
 - b. Manpower (listed by craft for Contractor and total for each Subcontractor)
 - c. Equipment used
 - d. A summary of activity for each shift and evaluation of the workmanship
 - e. A record of any inspections which were made
 - f. Results of tests
 - g. Identification of deficiencies or rejections
 - h. Proposed remedial sections
 - i. Corrective actions taken
 - j. Safety related issues
 - k. Permanent materials deliveries and inspections
2. Preparatory Inspection Meeting Record - This record will be delivered to the on-site Metro Representative and/or Metro prior to the start of each phase of work but not later than three work days after the meeting. The hazard analysis separately described in Section 01100 can be delivered at the same time.
3. Test Reports - A record of all tests shall be kept by Contractor on the job site. A copy of all test reports done by Contractor shall be provided to the Metro and/or Metro.
4. Quality Control Deficiency Reports - Contractor will prepare a deficiency report on all deficiencies in the work or in the quality of materials. The report will be logged and numbered and submitted to the Engineer and/or Metro along with the recommended remedy. Contractor will track the action through to completion, submitting a final report of inspection on the work in question.

C. Duties and responsibilities of the Quality Control Manager or a designated representative includes:

1. Have the authority to stop or reject work.
2. Be on-site during normal working hours and will be assigned full time to the project.
3. Establish the Quality Control Plan and execute the Quality Control Program.
4. Review all submittals, including shop drawings and materials submittals. Reject those submittals not in accordance with the Contract Documents, approve and submit those which are in accordance. Maintain a jobsite submittal file.

5. Ensure that line, grade, depth and compaction, density and composition of materials are in accordance with the Contract Documents.
6. Ensure that all work to be inspected includes an opportunity for Metro to check work prior to covering the work.
7. Coordinate required tests and inspections with the Metro and Metro's Construction Manager.
8. Inspect the work of Contractor and all Subcontractors.
9. Submit all required quality control documentation and maintain records.
10. Verify that all permanent materials delivered to the jobsite are in accordance with the Contract Documents. Submit certifications and test reports as required.
11. Accompany the Metro and/or Metro Construction Manager on jobsite inspections as required.
12. Prepare and submit the project punch lists prior to job completion and acceptance.
13. Furnish representative samples for testing as required by the Contract Documents or Metro.

1.4 INSPECTION

- A. Contractor will provide continuous inspection over his daily operations, including overtime and additional shifts.
- B. The Engineer and other regulatory agencies may also inspect as required by law and custom. The inspection by any of the above does not relieve Contractor of the requirement to inspect and to produce work in accordance with the plans and specifications. Contractor shall at all times provide safe access and assistance to the Engineer, and other authorized inspectors for inspection of the work.

1.5 TESTING

- A. Contractor will be responsible for all testing which may be required. Contractor will submit the qualifications of an independent test laboratory to provide testing services as required.
- B. The Engineer may conduct additional testing to check on the quality of work, materials or testing.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

The planning, execution and results of Contractor's Quality Control Program are considered incidental to the payment for the work as indicated by the bid items. Failure to comply with the Quality Control Program may result in withholding of all or a portion of the monthly progress payments by Metro at its discretion and Metro may use these withheld funds to contract or pay for this work outside of this Contract.

***** END OF SECTION *****

SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary utilities required during construction.
- B. Temporary construction facilities, including field offices and project signs.
- C. Requirements for security and protection of facilities and property.
- D. Requirements for traffic regulation and access to the work.
- E. Temporary controls for protection of environment.

1.2 SUBMITTALS

- A. Temporary Utility Submittals.
 - 1. Electric power supply and distribution plans.
 - 2. Water supply and distribution plans, including metering device.
 - 3. Wastewater routing plans including piping, ditches, culverts, etc.
- B. Temporary Construction Submittals
 - 1. Access roads and parking area plans.
 - 2. Storage yard and storage building plans, including gravel surfaced area.
 - 3. Fencing and protective barrier locations and details.
 - 4. Engineer's field office plans and equipment list.
 - 5. Staging area plan and notification of any obstructions encountered during mobilization.
- C. Temporary Control Submittals
 - 1. Copies of permits or approvals for construction from governing environmental protection agencies.
 - 2. Plan for disposal of waste materials.
- D. Safety and Protection Submittals
 - 1. Copies of permits or approvals for construction activities from governing safety authorities.
 - 2. Copies of survey notes taken to establish control points for structures affected by the work, and layout of survey control points.

1.3 MOBILIZATION

- A. Use area designated for Contractor's temporary facilities as determined by Metro.

- B. Notify Owner of obstructions not shown or not readily apparent by visual inspection of the staging area. If such obstructions adversely affect Contractor's operations, proper adjustment to Contract will be considered. Do not remove obstructions without Owner's prior consent.

1.4 TEMPORARY UTILITIES

- A. Permits Obtained by Owner

- B. Copies of permits or approvals for temporary utilities to be obtained by Owner will be made available to Contractor at the preconstruction conference.

- B. Costs After Substantial Completion

Upon acceptance of the work or a portion of the work defined and certified as substantially complete by Metro, and Owner commences full-time successful operation of the facility or portion thereof, the Owner will bear the cost for utilities used for Owner's operation.

- D. Electric Power

1. Locate and determine the type and amount of electric power available and make arrangements for obtaining temporary electric power service.
2. Temporary electric power installations shall meet construction safety requirements of OSHA, state, and other governing agencies.

- C. Water

The contractor will provide temporary facilities and piping required to bring water to the point of use, and remove them when no longer needed.

- D. Sewage

Provide and maintain sanitary facilities for Contractor's employees and subcontractors' employees that comply with regulations of local and state health departments.

- F. Telephone

Arrange for on-site telephone service for Contractor's use during construction. Costs of installation and monthly bills for Contractor's telephone service shall be borne by the Contractor.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 TEMPORARY CONSTRUCTION

- A. Access Roads and Parking

Contractor and Contractor employees shall provide for their own parking.

B. Storage Yards and Buildings

1. Construct temporary storage yards for the storage of products that are not subject to damage by weather conditions. Materials such as pipe, reinforcing and structural steel, shall be stored on pallets or racks, off the ground, and in a manner to allow ready access for inspection and inventory. Temporary gravel surfacing of storage yards must be approved by the Metro.
2. Erect or provide temporary storage buildings of various sizes needed to protect mechanical and electrical equipment and other materials, as recommended by manufacturers of such equipment and materials.
 - a. Provide environmental control systems that meet recommendations of manufacturers of equipment and materials stored in the buildings.
 - b. Buildings shall be of sufficient size.
 - c. Arrange or partition buildings to provide security for their contents and ready access for inspection and inventory.
 - d. At or near completion of the work, temporary storage buildings shall be dismantled, removed from the site, and remain the property of the Contractor.

C. Fencing and Barricades

1. Security Fence: The Contractor shall erect a temporary security fence with gates around the construction site as shown on the drawings.
2. Barricades: Provide barricades as necessary to prevent unauthorized entry to construction areas, both inside and outside of fenced area. Also provide barricades to protect existing facilities and adjacent properties from potential damage. Locate barriers to enable access by facility operators and property owners.

3.2 SAFETY AND PROTECTION

A. Examination of Existing Facilities

1. After the Contract is awarded and before the commencement of work, Contractor and Metro shall make a thorough examination of all existing buildings, structures, and other improvements in the vicinity of the work, as applicable, which might be damaged by construction operations.
2. Periodic examinations of existing buildings, structures, and other improvements in the vicinity of the work shall be made jointly by authorized representatives of the Contractor and the Owner. The scope of the examination shall include cracks in structures, settlement, leakage, and similar conditions.
3. Records of all observations shall be prepared in triplicate by the Contractor and each copy of every document shall be signed by the authorized representative of the Owner and of the Contractor. Photographs, as requested by the Owner, shall be made by the Contractor and signed in the manner specified above. One signed copy of every document and photograph will be kept on file in the office of the Owner.
4. These records and photographs are intended for use as indisputable evidence in ascertaining whether and to what extent damage occurred as a result of the Contractor's operations, and are for the protection of the adjacent property owners, the Contractor, and the Owner.

B. Safety Requirements

1. Contractor shall do whatever work is necessary for safety and be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees) and property during the Contract period. This requirement shall apply continuously and not be limited to normal working hours.
2. Safety provisions shall conform to Federal and State Departments of Labor Occupational Safety and Health Act (OSHA), and other applicable federal, state, county, and local laws, ordinances, codes, requirements set forth herein, and regulations that may be specified in other parts of these Contract Documents. Where these are in conflict, the more stringent requirement shall be followed. Contractor shall become thoroughly familiar with governing safety provisions and shall comply with the obligations set forth therein.
3. Contractor shall develop and maintain for the duration of the Contract, a safety program that will effectively incorporate and implement required safety provisions. Contractor shall appoint a qualified employee who is authorized to supervise and enforce compliance with the safety program.
4. Engineer's duty to conduct construction review of the Contractor's performance is not intended to include a review or approval of the adequacy of Contractor's safety supervisor, safety program, or safety measures taken in, on, or near the construction site.
5. As part of safety program, Contractor shall maintain at its office or other well-known place at the jobsite, safety equipment applicable to the work as prescribed by the governing safety authorities, and articles necessary for giving first-aid to the injured. Establish procedures for the immediate removal to a hospital or a doctor's care of persons who may be injured on the jobsite.
6. Contractor shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities or unramped grade changes in pedestrian sidewalk or walkway, and trenches or excavations in roadway. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work.
7. Construct and maintain satisfactory and substantial temporary chain link fencing, solid fencing, railing, barricades or steel plates, as applicable, at all openings, obstructions, or other hazards in streets, sidewalks, floors, roofs, and walkways. Such barriers shall have adequate warning lights as necessary or required for safety.
8. Comply with Owner's safety rules while on Owner's property.
9. If death or serious injuries or damages are caused, the accident shall be reported immediately by telephone or messenger to the Owner and Metro. In addition, Contractor shall promptly report in writing all accidents whatsoever arising out of, or in connection with, the performance of the work whether on or adjacent to the site, giving full details and statements of witnesses.
10. If claim is made by anyone against Contractor or any subcontractor on account of accident, Contractor shall promptly report the facts in writing, giving full details of the claim.
11. Furnish reports of weekly tool box safety training meetings as completed.

C. Traffic Safety and Access

1. Comply with rules and regulations of the city, state, and county authorities regarding closing or restricting the use of public streets or highways. No public or private road shall

be closed, except by written permission of the proper authority. Assure the least possible obstruction to traffic and normal commercial pursuits.

2. Where traffic will pass over backfilled trenches before they are paved, maintain top of trench to allow normal vehicular traffic to pass over. Provide temporary access driveways where required. Cleanup operations shall follow immediately behind backfilling.
3. When flagmen and guards are required by regulation or when deemed necessary for safety, furnish them with approved orange wearing apparel and other regulation traffic control devices.
4. Traffic control procedures and devices used on all local, county, and state rights-of-way shall meet the requirements of the applicable current laws and regulations for traffic control. See 3.3 TRAFFIC REGULATION below.
5. Contractor shall leave its night emergency telephone number or numbers with the police department, so that contact may be made easily at all times in case of barricade and flare trouble or other emergencies.

D. Fire Prevention.

Perform all work in a firesafe manner. Furnish and maintain on the site adequate fire fighting equipment capable of extinguishing incipient fires. Comply with applicable federal, local, and state fire prevention regulations. Where these regulations do not apply, follow applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241).

E. Protection of Work and Property

1. General

- a. Contractor shall employ such means and methods necessary to adequately protect public property and property of the Owner against damage. In the event of damage to such property, immediately restore the property to a condition equal to its original condition and to the satisfaction of the Engineer and the owner of said property, and bear all costs thereof.
- b. Protect stored materials and other items located adjacent to the proposed work.

2. Finished Construction

- a. Contractor shall assume the responsibility for protection of finished construction and shall repair and restore any and all damage to finished work to its original or better condition.
- b. Where responsibility can be fixed, costs for replacement or repair of damaged work shall be charged to the party responsible. If responsibility cannot be fixed, costs shall be prorated among all parties in proportion to their activities at the time the damage was done.
- c. Prevent wheeling of loads over finished floors, either with or without plank protection, except in rubber-tired wheelbarrows, buggies, or dollies. Protect finished floors and concrete floors exposed as well as those covered with composition tile or other applied surfacing.
- d. At such time temporary facilities and utilities are no longer required for the work, notify Metro of intent and schedule for their removal. Remove temporary facilities and utilities from the site as Contractor's property and leave the site in such condition as specified, as shown on the Drawings or as directed by the Engineer.

- e. In unfinished areas, leave the site evenly graded, seeded, or planted as necessary, in a condition that will restore original drainage, and with an appearance equal to or better than original.

3.3 TRAFFIC REGULATION

Signs and Equipment

Furnish at the site, or convenient to and immediately available to the site, the following signs and equipment:

1. Barricades, as required by the Vehicle Code, in sufficient quantity to safeguard the public and the work.
2. Portable "TOW-AWAY - NO STOPPING" signs, placed where approved by police department and owner.
3. Traffic cones, to delineate traffic lanes to guide and separate traffic movements.

3.4 ENVIRONMENTAL CONTROLS

A. General

1. The Contractor in executing the work shall maintain affected areas within and outside project boundaries free from environmental pollution that would be in violation of federal, state, or local regulations.
2. Do not impair operation of existing sewer systems. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, pump stations, or other sewer structures. Maintain original site drainage wherever possible.

B. Water Pollution Control

1. Comply with laws, rules, and regulations of the State of Oregon and agencies of the United States Government prohibiting the pollution of lakes, wetlands, streams, or river waters from the dumping of refuse, rubbish, or debris.
2. Divert sewage and waste flow, including stormwater flow, interfering with construction and requiring diversion to sewers leading to a wastewater treatment plant. Do not cause or permit action to occur which would cause an overflow to an existing waterway. Prior to commencing excavation and construction, obtain Metro's agreement with detailed plans showing procedures intended to handle and dispose of sewage, groundwater, and stormwater flow, including dewatering pump discharges.
3. Contractor shall comply with the procedures outlined in the U.S. Environmental Protection Agency manuals entitled "Guidelines for Erosion and Sedimentation Control Planning and Implementation", "Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity".

C. Waste Material Disposal

1. Excess excavated material not required or suitable for backfill, and other waste material, must be disposed of in accordance with existing regulations.

2. Unacceptable disposal sites include, but are not limited to, sites within a wetland or critical habitat and sites where disposal will have a detrimental effect on surface water or groundwater quality.
3. Contractor shall make his own arrangements for disposal subject to submission of proof that the owner(s) of the proposed site(s) has a valid fill permit issued by the appropriate governmental agency. Submit intended haul route plan, including a map of the proposed route(s). Provide watertight conveyance for liquids, semi-liquids, or saturated solids that tend to bleed during transport.
4. Maintain areas covered by the Contract and affected public properties free from accumulations of waste, debris, and rubbish caused by construction operations. Remove excavated materials from the site.
5. Cleaning and disposal shall comply with local ordinances and pollution control laws. Do not burn or bury rubbish or waste materials on the project site. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.

D. Air Pollution Control

1. Minimize air pollution likely to occur from construction operations by wetting down bare soils during windy periods, requiring proper combustion emission control devices on construction vehicles and equipment, and by shutdown of motorized equipment not in use. Trash burning will not be permitted on the construction site.
2. If temporary heating devices are necessary for protection of the work, they shall be an approved type as specified under Article TEMPORARY UTILITIES.
3. Operations of dumping rock and of carrying rock away in trucks shall be conducted to cause a minimum of dust. Give unpaved streets, roads, detours, or haul roads used in the construction area a dust-preventive treatment, or periodically water to prevent dust. Strictly adhere to applicable environmental regulations for dust prevention.

E. Noise Control

Minimize noise by executing work using appropriate construction methods and equipment. Provide acoustical barriers so noise emanating from tools or equipment will not exceed legal noise levels.

PART 4 PAYMENT

4.1 LUMP SUM AND UNIT PRICE BIDS

Payment for work in this section will be included as part of the lump sum and unit price bid amounts stated in the Proposal.

***** END OF SECTION *****

SECTION 01600
PRODUCT SHIPMENT, HANDLING, STORAGE, AND PROTECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

Requirements and procedures for work necessary for shipment, handling, storage, and protection of material and equipment products.

1.2 SUBMITTALS

A. Contractor shall submit the following:

1. Assembly instructions for parts shipped unassembled.
2. Manufacturer's instructions for unloading, handling, storage, and protection prior to installation, with each shipment of each product type.
3. Copy of manufacturer's notice of shipment for products critical to project schedule.
4. Documentation of products in storage, submitted with each progress payment request.

1.3 PREPARATION FOR SHIPMENT

A. When practical, products shall be factory assembled.

1. Furnish assembly instructions for parts and assemblies that are shipped unassembled.
2. Mark or tag the separate parts and assemblies for field assembly.
3. Cover machined and unpainted parts that may be damaged by the elements with a strippable protective coating.

B. Package or crate products to provide protection from damage during shipping, handling, and storage.

1. Mark or tag outside of each package or crate to indicate its purchase order number, bill of lading number, contents by name, name of project and Contractor, equipment number, and approximate weight.

C. Mark spare parts and special tools to identify the associated products by name, equipment, and part number. Package parts for protection against damage from the elements during shipping, handling, and storage. Ship in boxes or containers marked to indicate the contents and as stated above. Deliver spare parts and special tools before the associated equipment is scheduled for the initial test run.

D. Contractor shall request a minimum 7-day advance notice of shipment from manufacturers.

E. Where specified for specific product, factory test results shall be reviewed and accepted before such product is shipped.

1.4 RECEIVING, INSPECTION, AND UNLOADING

- A. Contractor shall record the receipt of products at the jobsite.
- B. Upon receipt of products at the jobsite, Contractor shall inspect for completeness and evidence of damage during shipment.
 - 1. Metro may be present for inspection.
 - 2. Should there appear to be damage, notify the Metro immediately and inform the manufacturers and the transportation company.
 - 3. Expedite replacement of damaged, incomplete, or lost items.
- C. After completion of inspection, unload products in accordance with manufacturer's instructions for unloading, or as specified. Do not unload damaged or incomplete products to be returned to manufacturer for replacement, except as necessary to expedite return shipment.

1.5 HANDLING, STORAGE, AND MAINTENANCE

- A. Handle products in accordance with the manufacturer's written recommendations, and in a manner to prevent damage.
- B. Store products prior to installation as recommended by the manufacturer.
 - 1. Store products such as pipe and reinforcing steel off the ground in approved storage yards.
 - 2. Store items subject to damage by the elements, vandalism, or theft in secure buildings.
 - 3. Provide environmentally controlled storage facilities for items requiring environmental control for protection.
 - 4. Storage yards and storage buildings shall conform to requirements of Section 1500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS.
- C. Provide manufacturer's recommended maintenance during storage, installation, and until products are accepted for use by Owner.
- D. Store products to provide access for inspection and inventory control. Contractor shall document products in storage to facilitate inspection and to estimate progress payments for products delivered but not installed in the work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

PART 4 PAYMENT

4.1 LUMP SUM AND UNIT PRICE BID

Payment for work in this section will be included as part of the lump sum and unit price bid amounts stated in the Proposal.

***** END OF SECTION *****

**SECTION 01650
TESTING, STARTUP AND OPERATION**

PART 1 GENERAL

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Construction Facilities and Temporary Controls: Section 01500
- B. Contract Closeout: Section 01700
- C. Operation and Maintenance Data: Section 01730
- D. Equipment: Division 11
- E. Mechanical: Division 15
- F. Electrical: Division 16

1.2 RESPONSIBILITY

- A. Testing, startup and operation shall not be cause for claims for delay by the Contract and all expenses accruing therefrom, shall be deemed to be incidental to the Contract.
- B. The Contractor shall provide all materials, supplies and labor necessary to efficiently complete the testing, startup and operation.
- C. All power and utility bills shall be paid by the Contractor up to and including the day of final acceptance of the Contract by Metro. If not paid, these charges shall be treated as claims against the Contractor.
- D. If Metro chooses to commence operations prior to final acceptance, Metro will assume payment of all power and utility charges effective the day that operation is assumed by Metro and notice is given in writing.

1.3 SCHEDULE

- A. Placing all applicable phases of the project in service shall consist of three parts: testing, start up and operations.
- B. Not less than thirty (30) days before anticipated time for beginning the testing, the Contractor will submit to the Metro for approval, a complete plan for:
 - 1. Schedules for tests.
 - 2. Detail schedules of procedures for startup.
 - 3. Complete schedule of events to be accomplished during startup.
 - 4. Schedule operator training as specified.
 - 5. An outline of work remaining under the Contract that will be carried out concurrently with the operation phases.

1.4 TESTING

- A. Testing shall consist of individual tests and checks made on equipment intended to provide proof of performance of units and proper operation of unit controls together with such necessary tests whether or not described elsewhere in these Specifications to assure proper alignment, size, condition, capability, strength, proper adjust, lubrication, pressure, hydraulic tests, leakage tests and all other checks deemed necessary by the Metro to determine that all materials and equipment are of specified quality, properly situated, anchored and in all respects ready for use.
- B. All gravity pipe and pressure piping shall be tested as required by these specifications and applicable codes.
- C. Tests on individual items of equipment, pipelines, vessels, structures, tanks, controls and other items shall be as described in various sections describing such items.
- D. Testing will be done by the Contractor in the presence of an Inspector designated by the Metro. Records of all official tests will be made by the Inspector.
- E. During tests, the Contractor shall correct any defective work discovered or that is not in first class operating condition.

1.5 STARTUP

- A. Startup shall consist of testing by a simulated operation, all operational equipment and controls. The purpose of these tests shall be to check that all equipment will function under operating conditions, that all interlocking controls and sequences are properly set and that the facility will function as an operating unit.
- B. Checks for leakage of tanks, ponds, piping, valves, gates and all other hydraulic systems and structures will be made.
- C. Factory representatives of all major units shall be present for the startup phase. The test shall continue until it is demonstrated that all dysfunction of controls and machinery are corrected.
- D. The startup shall not begin until all tests required by these Specifications have been completed and approved by the Engineer.

1.6 OPERATION

- A. Operation of the facility shall be immediately started after completion of testing and startup and after satisfactory repairs and adjustments have been made and providing supply and disposal facilities furnished by others are available. If these facilities are not available, the plant will be closed down and no further testing or operation by the Contractor will be required. The Contractor, however, will be responsible that all details required by the Contract shall remain in good order until final acceptance of the whole Contract.
- B. The facility will be operated by personnel placed on the project by Metro South Transfer Station who will perform all duties and operate all equipment.

- C. Taking possession and use of the facility shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents.
- D. If such prior use increases or causes refinishing of completed work, the Contractor shall be entitled to such extra compensation or extension of time or both, as the Metro may determine.

***** END OF SECTION *****

**SECTION 01700
CONTRACT CLOSEOUT**

PART 1 GENERAL

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Adjusted Payments for Delay: Article 3 General Conditions
- B. Payments: Article 9 General Conditions
- C. Certification and Final Payment: Article 9 General Condition
- D. Coordination and Site Conditions: Section 01040
- E. Project Record Documents: Section 01720
- F. Operation and Maintenance Data: Section 01730

1.2 SUBSTANTIAL COMPLETION

A. Contractor

- 1. After testing and startup, submit written certification to Metro that Project or designated portion of Project is substantially complete.
- 2. Submit punch list of items to be completed or corrected.

B. Engineer will make an inspection after receipt of Contractor's certification, together with Metro's representative.

C. If it appears to the Engineer and Metro that work is substantially complete:

- 1. The Engineer may request of and Contractor shall prepare and submit to the Engineer, a list of items to be completed or corrected as determined by the inspection.
- 2. If the Engineer then considers the work to be substantially complete, the Engineer may, with Metro's approval, issue a Certificate of Substantial Completion, with appropriate conditions, accompanied by a list of the items to be completed and corrected, as verified and amended by Engineer. Omission of any item from the list shall not relieve Contractor from responsibility to complete all the work in accordance with the Contract.
- 3. Metro occupancy of Project or designated portion of Project:
 - a. Metro may use all or part of the work within the time designated in the Certificate of Substantial Completion, upon notice to the insurance company or companies as provided in Article 9 of the General Conditions.
- 4. Contractor shall complete all the work within the time designated in the Certificate, or if not so designated within a reasonable time.

D. Should the Engineer and Metro consider that work is not substantially complete:

- 1. Engineer shall notify Contractor, in writing stating reasons and list of items.
- 2. Contractor shall complete work and send second written notice to Engineer and Metro certifying that Project or designated portion of Project is substantially complete.

- E. Warranties: Under Article 7 of the General Conditions guarantee and warranty periods begin with the date of final acceptance. However, in connection with any specific equipment certified by the Engineer as completed and its use or operation thereof for its intended purpose is assumed by Metro, the warranty period for such equipment shall begin with the beginning date of such use or operation.

1.3 FINAL INSPECTION

- A. Contractor shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been completed in accordance with Contract Documents.
 - 3. Equipment and systems have been tested in presence of Metro's representative and are operational.
 - 4. Project is completed, and ready for final inspection.
- B. Engineer will make final inspection within a reasonable time after receipt of certification.
- C. Should Engineer consider that work is complete in accordance with requirements of Contract Documents, Engineer shall request Contractor to make project closeout submittals.
- D. Should Engineer and Metro consider that work is not complete:
 - 1. Engineer shall notify Contractor, in writing, stating reasons.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to Metro certifying that work is complete.
 - 3. Engineer will reinspect work.

1.4 REINSPECTION COSTS

In addition to any overtime inspection due under Article 9 of the General Conditions, should Engineer be required to perform second inspections because of failure of work to comply with original certifications of Contractor, Metro will compensate Engineer for additional services as stated in said article and charge Contractor for such fees at the Engineer is currently established billing rate.

1.5 CLOSEOUT SUBMITTALS

- A. Project Record Documents: To requirements of Section 01720.
- B. Guarantees and bonds required by these specifications: See Article 7 of General Conditions and specific equipment or material specifications.
- C. Easement Release: (where applicable).
- D. At the close of the Contract Contractor shall:
 - 1. Pay all utility bills.
 - 2. Remove all electrical, sanitary, gas, telephone, water, offices and any other temporary service equipment that may remain.

3. Arrange for transfer of electrical, water and other applicable utility accounts to Metro's name.

E. Deliver evidence of compliance with requirements of governing authorities (where applicable).

1.6 FINAL ADJUSTMENT OF ACCOUNTS

A. Submit final statement of accounting to Metro.

B. Statement shall reflect all uncompleted adjustments

1. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Cash Allowances.
 - c. Unit Prices.
 - d. Other Adjustments.
 - e. Deductions for Liquidated Damages.

2. Unadjusted sum remaining due.

1.7 FINAL APPLICATION FOR PAYMENT

Contractor shall submit final application for payment in accordance with requirements of General Conditions and shall reflect the final adjustment of accounts in Paragraph 1.6.

1.8 FINAL CERTIFICATE FOR PAYMENT

A. Engineer will issue Final Certificate in accordance with provisions of General Conditions.

B. Should final completion be materially delayed through no fault of Contractor, Engineer may issue a Final Certificate for Payment, in accordance with provisions of General Conditions and existing laws.

1.9 POST-CONSTRUCTION INSPECTION

A. Prior to expiration of one year from Date of Substantial Completion or Final Acceptance, Metro may make visual inspection of Project in company with Metro and Contractor to determine whether correction of work is required, in accordance with warranty/guarantee provisions of General Conditions.

B. For guarantees beyond one year, Metro will make inspections at request of Metro, after notification to Contractor.

C. Metro will promptly notify Contractor, in writing, of any observed deficiencies.

***** END OF SECTION *****

**SECTION 01720
PROJECT RECORD DOCUMENTS**

PART 1 GENERAL

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Closeout Submittals: Article 9 General Conditions and Section 01700.
- B. Coordination and Site Conditions: Section 01040
- C. Shop Drawings, Project Data, and Samples: Section 01340
- D. Operation and Maintenance Data: Section 01730

1.2 MAINTENANCE OF RECORD DOCUMENTS

- A. Contractor shall maintain at job site, one record copy of:
 - 1. Contract Drawings.
 - 2. Project Specifications.
 - 3. Addenda.
 - 4. Reviewed Shop Drawings.
 - 5. Change Orders.
 - 6. Other Modifications to Contract.
 - 7. Field Test Records.
 - 8. Operational and Maintenance Data Delivered with Mechanical and Electrical Equipment.
 - 9. Certified Weight Tickets
- B. Store record documents apart from working documents used for construction.
- C. Provide files and shelves for storage of record documents.
- D. Maintain record documents in clean, dry, legible condition.
- E. Do not use record documents for daily construction purposes.
- F. Make record documents available at all times for inspection by Metro and Metro

1.3 RECORDING

- A. Do not permanently conceal any work until required information has been recorded.
- B. Keep record documents current.
- C. Contract Drawings: Legibly mark to record actual construction:
 - 1. Horizontal and vertical location of underground utilities and appurtenances and references to permanent surface improvements.

- D. Specifications and Addenda: Legibly mark up each Section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - 2. Changes made by Change Order.
 - 3. Other matters not originally specified.
- E. Shop Drawings: Maintain as record documents; legibly annotate drawings to record changes made after review.

1.4 SUBMITTAL

- A. At completion of project, deliver complete set of all record documents to Engineer.
- B. Accompany submittal with transmittal letter signed by Contractor or his authorized site representative.

*** END OF SECTION ***

**SECTION 01730
OPERATION AND MAINTENANCE DATA**

PART 1 GENERAL

1.1 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Testing, Startup and Operation: Section 01650
- B. Shop Drawings, Product Data and Samples: Section 01340
- C. Contract Closeout: Section 01700
- D. Material and Equipment Specified: All Divisions

1.2 REQUIREMENTS

- A. The Contractor shall submit to Engineer two copies of draft operations and maintenance manuals for each major piece of equipment and system component at least 30 days prior to scheduled testing and at least 30 days prior to submitting written notice of substantial completion.
- B. Engineer and Metro will review and return one copy with comments. If corrections are required, the Contractor will make corrections and resubmit one corrected copy plus corrected pages for the copy in Metro's possession.
- C. Upon approval, the Contractor will furnish six (6) copies of the Operations and Maintenance Manuals. Complete approval of all required manuals will be a condition for final completion and payment.
- D. The Operations and Maintenance Manuals will include as a minimum the following:
 - 1. Table of Contents.
 - 2. System Description and Functions of Individual Items of Equipment.
 - 3. As Built Layout. Include locations of all elements and wiring diagram of control circuits.
 - 4. Operations and Maintenance Instructions for each major item of equipment. These instructions will clearly identify the equipment actually provided and information pertaining to other models or variations will be lined out. The instructions will include information on:
 - a. Operating conditions
 - b. Installation instructions
 - c. Startup procedures
 - d. Shut down procedures
 - e. Maintenance instructions
 - f. Trouble shooting procedures.
 - 5. Maintenance Schedules - Cross reference these schedules to specific paragraphs in the O&M Instructions.
 - 6. Spare Parts and lubricants lists
 - 7. Warranties

E. Specific requirements for the Electrical Operations and Maintenance Manual are included in Division 16.

1.3 MANUAL ASSEMBLY

A. Data shall be bound in first quality, heavy, permanent 3-ring type binders.

B. Manuals shall be assembled and indexed so that information on any piece of equipment can be readily found.

1.4 MAINTENANCE SCHEDULE

A. Maintenance schedules for each item of equipment will include a "summary of maintenance" substantially in the format as attached:

(Typical Maintenance Summary Form attached)

TYPICAL MAINTENANCE SUMMARY FORM

1. EQUIPMENT ITEM
2. MANUFACTURER
3. EQUIPMENT IDENTIFICATION NUMBER(S)
4. WEIGHT OF INDIVIDUAL COMPONENTS (OVER 100 POUNDS)
5. NAMEPLATE DATA (hp, voltage, speed, etc.)
6. MANUFACTURER'S LOCAL REPRESENTATIVE

Name _____ Telephone No. _____

Address _____

7. MAINTENANCE REQUIREMENTS

Maintenance Operation	Frequency	Lubricant (If Applicable)	Comments
List briefly each maintenance operation required and refer to specific information in manufacturer's standard maintenance manual, if applicable.	List required frequency of each maintenance operation.	Refer by symbol to lubricant list required.	

8. LUBRICANT LIST

Reference Symbol	Shell	Standard Oil	Gulf	Arco	Or Equal
List symbols used in Item 7. above.	List equivalent lubricants, as distributed by each manufacturer for the specific use recommended.				

9. SPARE PARTS. Include your recommendations regarding what spare parts, if any, should be kept on the job.

*** END OF SECTION ***

**SECTION 15330
FIRE PROTECTION SPRINKLER SYSTEMS**

PART 1 - GENERAL

1.1 SUMMARY OF WORK

- A. Installation contractor shall demo existing sprinkler system downstream of fire department connection coupling, provide and install new sprinkler system with all new materials. Do not install used material.
- B. The conditions shown on the plans are based on the best information available but are subject to verification by the installation contractor. The installation contractor shall verify exact length, size, location and elevations of the new sprinkler system with the existing architectural and structural conditions prior to fabrication and installation. The installation contractor shall be responsible for correcting any deficiencies caused by failure to perform such verifications. Any discrepancies from the plans shall be brought to the attention of the Owner and Engineer immediately.
- C. Contractor will provide and pay for all labor, materials, equipment, testing, and daily quality control that is required for the following:
 - 1. Dry-pipe sprinkler system or dry sprinkler heads in areas subject to 40F or less. Antifreeze systems are not permitted. All dry pipe systems shall be constructed of pipe galvanized inside and out.
 - 2. Plan check approval has been applied for and the fee paid by Interface Engineering. Interface Engineering shall be solely responsible for obtaining approval from the City of Oregon City and the Fire Marshall for the project drawings, hydraulic calculations, and specifications.
 - 3. Project drawings, hydraulic calculations, and specifications have been submitted to Factory Mutual Engineering for review. Comments from Factory Mutual Engineering addressing the design shall be addressed by Interface Engineering.
 - 4. All materials used on this project shall be new.
- D. Provide separate costs for possible additional work:
 - 1. Provide and install new ceiling tile in office area.
 - 2. Provide and install air exhauster in dry pipe system.
 - 3. Provide and install isolation check valve in dry pipe system to reduce time for water to reach inspector's test connection. Price check valves individually by size.
- E. Provide tamper, flow, and pressure switches. Coordinate location and type of tamper, flow, and pressure switches with the fire alarm system.
- F. Provide all costs for electrical connections and wiring as required for a complete and operable system. Includes, but is not limited to air compressors, sump pumps, fire pumps, jockey pumps, pump controllers, etc.

- G. Provide new air compressor with desiccant-style air dehydrator. Refer to specification section on air compressor.
- H. Refer to Fire Protection Drawings for additional information relating to the fire sprinkler system.

1.2 QUALITY ASSURANCE

- A. **Qualifications:** Contractor having specialized in the construction of sprinkler systems of similar type and scope with three years experience. Contractor is responsible for quality control and will provide supervision and control on a daily basis to ensure the work is done in accordance with the Contract Documents.
- B. **Definitions:**
 - 1. **Code:** Where this Specification refers to "Code", it shall indicate any or all of the above listed Codes as applicable to that reference.
 - 2. **AHJ:** Indicates all reviewing authorities, including the local Fire Marshal, the Owner's insurance underwriters, Owner's representative, and any other reviewing entity whose approval is required to obtain systems acceptance.
- C. **Regulatory Requirements:**

Codes: Provide system per the requirements of the following, except as specifically modified herein. Apply edition as enforced by authority having jurisdiction (AHJ) unless otherwise stated. Comply with state amendments.

 - 1. Uniform Building Code as adopted by the AHJ.
 - 2. Uniform Fire Code as adopted by the AHJ.
 - 3. Uniform Building Code and UBC No. 9-1, Installation of Sprinkler Systems.
 - 4. NFPA 13, (1996 Edition) Standard for the Installation of Sprinkler Systems.
 - 5. Uniform Fire Code and UFC, Appendix III-C, "Testing Automatic Sprinkler and Standpipe Systems".
 - 6. Factory Mutual Loss Prevention Data Sheet 2-8N, "Installation of Sprinkler System".
 - 7. Factory Mutual Data Sheet 2-8, Earthquake Protection for Water Based Fire Protection Systems.
 - 8. **Listed Components:** Provide components UL listed and FM approved, except as modified herein.
- D. **Daily Quality Control -** Contractor will provide a daily report of activities, tests, inspections, and evaluation of workmanship by 1000 (10:00 AM) on the following work day.

1.3 SUBMITTALS

- A. **Submit the following for review. Include in operations & maintenance manual.**
 - 1. **Material Submittals -** All material shall be approved by AHJ, Metro, Factory Mutual, and Engineer.

2. Shop drawings and hydraulic calculations if installation contractor changes sprinkler system design; and component manufacturer's data sheets (as one complete package) to Metro, Factory Mutual Engineering, and Engineer.
3. Provide red lined drawings to Interface Engineering indicating the as-built condition at completion of installation. Interface Engineering will draft changes and provide final as-built drawings to Metro.
4. Test Reports: Manufacturer's operation and maintenance data. Include written maintenance data on components of system, servicing requirements, and red marked drawings. Code and Factory Mutual Engineering test result certificates including:
 - a. Hydrostatic test.
 - b. Dry system air test.
 - c. Delivery of water to the inspector's test connection in 60 seconds or less per Factory Mutual Engineering recommendation.
5. Operations and Maintenance Manual for the completed system. As a minimum the manual shall:
 - a. Size: Approximately 8-1/2 by 11 inches.
 - b. Format: Firmly bound in heavyweight plastic or paper cover to withstand hard use. Loose-leaf binding is not acceptable unless each binding hole of each sheet is protected with cloth reinforcing ring.
 - c. Contents:
 - 1) Identification visible on or through the Cover: Manual for the Fire Sprinkler System for Metro South, Oregon City, Oregon.
 - 2) Neatly typed index, at or near the front, with emergency information location clearly identified.
 - 3) A complete list of all components of the system with manufacturer's names, catalog numbers and all data required for ordering replacement parts.
 - 4) Copy of written warranty.

1.4 DELIVERY, HANDLING AND STORAGE

Provide temporary inlet and outlet caps. Maintain caps in place until installation.

1.5 EXTRA STOCK

Provide extra sprinkler heads per Code, provide suitable wrenches for each head type, and metal storage cabinet in location designated.

1.6 SYSTEM DESCRIPTION

A. General:

1. Provide coverage for the entire building.
2. Design Parameters:
 - a. Building Area: Main Operations Building, Canopy, and Latex Paint Recycling Tunnel.
 - 1) Occupancy Classification: Factory Mutual Engineering Data Sheet 3-26 Table 6.
 - 2) Density: 0.15 GPM per square foot over a 3500 square foot hydraulically most remote design area per NFPA 13.

- 3) Area per Sprinkler: 130 square feet maximum.
- 4) Inside Hose Allowance: 100 GPM.
- 5) Outside Hose Allowance: 150 GPM.
- 6) Sprinkler Head Rating: 286F.
- b. Building Area: Compactor Room.
 - 1) Occupancy Classification: Ordinary Group 2.
 - 2) Density: 0.20 GPM per square foot over the entire 1968 square foot room area per NFPA 13.
 - 3) Area per Sprinkler: 130 square feet maximum.
 - 4) Inside Hose Allowance: 100 GPM.
 - 5) Outside Hose Allowance: 400 GPM.
 - 6) Sprinkler Head Rating: 286F.
- c. Building Area: Office Areas and Control Room.
 - 1) Occupancy Classification: Light.
 - 2) Density: 0.10 GPM per square foot over a 1500 square foot hydraulically most remote design area per NFPA 13.
 - 3) Area per Sprinkler: 225 square feet maximum.
 - 4) Inside Hose Allowance: 100 GPM.
 - 5) Outside Hose Allowance: 150 GPM.
 - 6) Sprinkler Head Rating: Ordinary.
3. Sprinkler system design shall include a 10 percent cushion between system demand point and available water supplies.

1.7 FLOW TEST

- A. Flow: 1960 GPM at a residual pressure of 87 PSIG.
- B. Static Pressure: 110 PSIG.
- C. Location: By Scale House A, Metro South, Oregon City.
- D. Date: January 6, 1997.
- E. Information Provided By: D. A. Fluhrer of Factory Mutual Engineering.

1.8 GUARANTEE

The Contractor shall guarantee all systems against defective equipment, materials and workmanship for a period of one year after Owner's acceptance.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

- A. General: Provide per AHJ requirements, and as a minimum per below.
- B. Materials: Domestic Manufacture.
 1. Above Ground Inside Building Piping:
 - a. Pipe size 2 inch diameter and smaller: ASTM A53, ASTM A135, or ASTM A795; minimum CRR of 1.00 per UL listing or Factory Mutual approved. Threaded, mechanical couplings, or welded fittings. Shall be Schedule 40 minimum.

- b. Pipe Size 2-1/2 inch diameter and larger: ASTM A53, ASTM A135, or ASTM A795. Threaded, mechanical couplings, flanged, or welded fittings. Shall be Schedule 10 minimum.
- c. Mechanical Couplings: FM approved; Victaulic, Gruvelock, or equivalent.
- d. All dry pipe system piping shall be galvanized inside and out. Pipe shall be factory galvanized with factory stenciling on the outside of the pipe.

2.2 SPECIALTIES

General:

1. Waterflow Detector: Vane-type with SPDT switches and adjustable time delay (0 to 75 seconds). GEM VSR-F; Viking VSR-F; Potter VSR-SF, or equivalent.
2. Tamper Switches: Provide to mount on applicable valve (OS&Y gate, butterfly, or PIV), with SPDT switches to match requirements of fire alarm system.
3. Low Pressure Alarm Switch: Coordinate electrical requirements with fire alarm system. GEM PS40-2A, Viking A-1, or equivalent.
4. Automatic Ball Drip Valve: Grinnell F789, or equivalent.
5. Air Compressor: UL listed for use with sprinkler equipment of special designs (dry or preaction system). Air compressor shall be sized per sprinkler dry pipe valve manufacturer's recommendations to fill system and to maintain system pressure as required per code.
6. Sectional Control Test/Drain Unit: ASTM A53 pipe, with inspector's test valve, sectional drain valve, sectional isolation valve with tamper switch, restriction union with corrosion resistant orifice equivalent to sprinkler orifice, sight flow connection, and waterflow detector. Grinnell F360/361/362, or equivalent.
7. Inspector's Test Connection: G/J Sure-Test or equivalent.
8. Pressure Switch: Coordinate electrical requirements with fire alarm system. Potter PS10, Viking A-1, Reliable J54. or equivalent.
9. Exhauster: Firematic Model "C" or equivalent. Route 2 inch pipe to location that can accept any water that may be discharged. Install so exhauster can be reset from floor level.

2.3 SPRINKLER HEADS

General:

1. Finished Areas: Glass-bulb, recessed, quick-response pendent with chrome plated finish, and white painted escutcheon.
2. Non-Finished Areas: Glass-bulb, with brass finish.
3. Dry Pendant: Recessed, solder or glass bulb, quick response, chrome finish with chrome escutcheon.

2.4 VALVES, GENERAL

A. OS&Y Gate:

1. 2-1/2 Inches and Larger: Nibco F-607-0, or equivalent.
2. 2 Inches and Smaller: Nibco T-104, or equivalent.

- B. NRS Gate: Non-rising stem with post indicator. Nibco M/F-609 with NIP1A or equivalent for yard use and Nibco NIP2 or equivalent for wall use.
- C. Swing Check: Iron body, rubber and bronze faced checks. Nibco F-908-W, or equivalent.
- D. Wafer Check: Iron body, rubber seat, spring actuated. Nibco W-900-W, or equivalent.
- E. Butterfly Valves: Ductile iron body, Nibco WD3510-8 with factory-installed tamper switches or equivalent.

2.5 SYSTEM ALARM VALVES

- A. Wet Pipe Alarm Check Valve: Provide with all trim as recommended by the manufacturer for variable pressure service including retarding chamber, pressure gauges, main drain, integral alarm test. Reliable Model E, or equivalent.
- B. Dry Pipe Valve: Differential type. Provide with all trim as recommended by the manufacturer for variable pressure service, including air maintenance device, electric low pressure alarm switch, priming valves and test, main drain, and pressure gauges. Provide accelerator on dry pipe valve. Manufacturer: Reliable Model D Dry Pipe Valve, or equivalent.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Provide adequate space for installation.
- B. General:
 1. Install pipe runs to minimize obstruction to other work.
 2. Install piping in concealed spaces above finished ceilings.
 3. Center heads in the middle of suspended ceiling tile.
 4. Apply strippable tape or paper cover to ensure sprinklers do not receive field paint finish. Remove upon completion of painting.
 5. Provide seismic restraints per code and Factory Mutual Data Sheet 2-8, Earthquake Protection for Water Based Fire Protection Systems.
 6. Risers: Provide two inches of clearance all around the fire main through the foundation wall and floor. Pack annular space with mineral wool and silicone sealant. Provide bell and spigot rodded pipe assemblies for the connection between the underground fire main, and the riser, including the last horizontal connection, and all vertical connections to the first connection on the riser. Coat rods for corrosion resistance, or use stainless steel.
 7. Flush entire piping system of foreign matter.

8. Route water supply flow test connections to a location which can accept the flow under wide-open flow and pressure for a sufficient time to assure a proper test, and which will not cause damage, including to landscaping.
9. Coordinate location and electrical requirements of air compressor.
10. Provide dry pendant sprinkler heads on pendant drops from dry piping.
11. Provide access panels for all test valves, test drains and low point drains concealed by structure and/or finish.
12. Route system drain discharge to location outside building that can accept flow from the full open drain valve which will not cause damage, including landscaping. Existing drain discharges inside building and is unacceptable.

3.2 SYSTEM TESTS

- A. Test entire system per Factory Mutual Engineering recommendations, Code and AHJ. Provide, arrange, and pay for all testing required by Factory Mutual Engineering Code or AHJ in order to obtain complete and final acceptance. Tests shall be witnessed by Factory Mutual Engineering, AHJ, and Engineer. Notify Factory Mutual Engineering, AHJ, and Engineer two weeks prior to test.
- B. Installation shall be subject to field review by Factory Mutual Engineering following completion of work.

3.3 FIELD SERVICES

Instruct the Owner in the operation of the sprinkler system, including main valve position (open or closed) recognition, system drainage, system testing, dry pipe valve reset and the relation to the fire alarm system.

3.4 COORDINATION INSTRUCTIONS

- A. Comments from Factory Mutual Engineering addressing demolition and construction practices are solely the responsibility of the installation contractor. The installation contractor shall minimize the time the facility is without fire protection. Sprinkler system valve closures shall be coordinated with Factory Mutual and Metro.
- B. Work by the installation contractor shall be performed between the hours of 1930 hours and 0430 hours. All material and equipment shall be returned to the staging area at the end of each working shift. The Transfer Station must stay in full operation seven days a week throughout the project.
- C. Removed sprinkler system pipe, hangers, and accessories can be recycled at the Metro site at no cost to the installation contractor.

***** END OF SECTION *****

**SECTION 16721
FIRE/LIFE SAFETY SYSTEM**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Fire Alarm Equipment.
 - 2. Fire Alarm Wiring.
- B. Add one flow switch, one tamper switch, one air pressure switch and one 120VAC air compressor. Location: Room No. 108.
- C. Tie the new fire alarm devices to the existing FACP (Gamewell). Wire per NFPA 72 (Class A).

1.2 SYSTEMS DESCRIPTION

- A. Requirements of Regulatory Agencies:
 - 1. Installation subject to approval by the AHJ's.
 - 2. Equipment shall be UL listed and FM approved; provided by sprinkler system contractor.
- B. Reference Standards:
 - 1. NFPA 72.
 - 2. NEC. 1996
 - 3. UBC - 1994.

1.3 SUBMITTALS

- A. Submit Shop Drawings.
- B. Equipment submittal must include the following:
 - 1. Complete descriptive data (cut-sheets) including UL listing, FM approval (for the specified application) for all system components; by sprinkler system contractor.
 - 2. Complete system wiring diagrams, wiring connection details (shop drawings).
 - 3. Indicate on the floor plans initiating circuits number.
 - 4. Show wiring connection details for components being connected to the system and interface to associated equipment.
- C. Submit, prior to final acceptance, a letter confirming that inspections have been completed and the system is installed and functioning in accordance with the Specifications. Include manufacturer representative certification of installation and letter of warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Furnish all equipment specified in this section by one manufacturer.

PART 3 - EXECUTION

3.1 WIRING

- A. In accordance with manufacturer's instructions, as required by the NEC and the AHJ's. Provide all wiring, conduit and outlet boxes required for the erection of a complete system as described herein.
- B. Provide all final connections between equipment and the wiring system approved by the manufacturer.

3.2 EQUIPMENT DEMONSTRATION AND PERSONNEL TRAINING

At the direction of the Owner the equipment supplier of the system will provide factory trained representative to demonstrate the operation of the fire alarm system equipment and to instruct the owner's personnel in its operation.

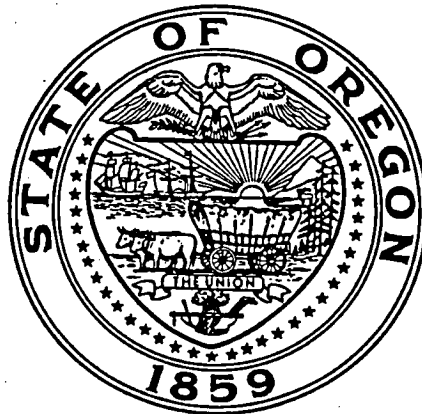
3.4 OPERATION AND MAINTENANCE MANUALS

Provide three sets of manuals to the Owner prior to final acceptance. Warranty period begins upon the date of final acceptance.

***** END OF SECTION *****

**PREVAILING WAGE
RATES
for
Public Works
Contracts
and Specifications
in Oregon**

THE RATES AND CLASSIFICATIONS LISTED IN THIS BOOKLET ARE PUBLISHED BY THE OREGON BUREAU OF LABOR AND INDUSTRIES AND MAY BE USED BY THE PUBLIC CONTRACTING AGENCIES IN COMPLYING WITH ORS. 279.352*



**Jack Roberts
Commissioner
Bureau of Labor and Industries**

Effective July 1, 1997

***ANOTHER PUBLICATION, INCLUDING COMMONLY ASKED QUESTIONS AND FORMS IS AVAILABLE UPON REQUEST.**

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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ASBESTOS WORKERS

Installation of insulation on mechanical systems for Thermal and Acoustical purposes, also the installation of fire stop penetrations on Electrical and Mechanical Systems.

Journeyman Asbestos Worker	23.98	6.38
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Removal of regulated material on mechanical systems* which are not going to be scrapped.**

o Hazardous Materials Handler Mechanic	13.75	3.50
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* Mechanical systems include pipes, boilers, ducts, flues, breaching, grease ducts and acid ducts. This also includes all labor connected with the handling and distribution of materials for these systems.

** The removal of all regulated materials from mechanical systems is exclusively the work of Hazardous Materials Handlers, unless the mechanical systems are going to be scrapped. Laborers do all removal of regulated materials on mechanical systems to be scrapped and any non mechanical (walls, ceilings, floors, beams etc.) insulation. They also do loading of any regulated material after it has been removed, bagged and tagged, as well as cleanup at the removal site and all work done at the disposal site. Persons performing the removal of regulated materials are classified as Group 3 Laborers.

NOTE: Regulated materials are those materials that are regulated for the purpose of protecting the environment or for personal protection by either E.P.A., O.S.H.A., DEQ or Federal O.S.H.A.

BOILERMAKERS	24.07	9.31
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BRICKLAYERS/STONEMASONS

THIS TRADE IS TENDED BY "TENDERS TO MASONS" -PG. 12

Area 1 (add \$0.75 per hour to Fringe for Refractory repair work.)	23.86	6.71
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Area 2 (add \$0.75 per hour to Fringe for Refractory repair work.)	22.12	5.88
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Area 1

Baker	Hood River	Multnomah	Wallowa
Benton (a)	Lincoln (a)	Polk	Wasco (a)
Clackamas	Linn (a)	Sherman	Washington
Clatsop	Malheur (a)	Tillamook	Yamhill
Columbia	Marion	Umatilla	Gilliam
Morrow	Union		

BRICKLAYERS/STONEMASONS(Continued)

Area 2

Benton (b)	Douglas	Josephine	Linn (b)
Crook	Grant	Klamath	Malheur (b)
Coos	Harney	Lake	Wasco (b)
Curry	Jackson	Lane	Wheeler
Deschutes	Jefferson	Lincoln (b)	

a) North half
b) South half

CARPENTERS

Zone 1 (Base Rate):

o Group 1	22.44	7.00
o Group 2	22.59	7.00
o Group 3	22.94	7.00
o Group 4	23.09	7.00
o Group 5	22.94	7.00
o Group 6	23.09	7.00
o Group 7	23.44	7.00

Zone Differential for Carpenters
(Add to Zone 1 Rate)

Zone 2	.85
Zone 3	1.25
Zone 4	1.70
Zone 5	2.00
Zone 6	3.00
Zone 7	5.00

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 60 miles.

Zone 5: More than 60 miles but less than 70 miles.

Zone 6: More than 70 miles but less than 100.

Zone 7: More than 100 miles from the city hall of the employee's home local.

Reference cities for Group 1 and 2 Carpenters

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	Vancouver

Zones for Groups 3 and 4 Carpenters are determined by the distance between the project site and either

1) the worker's residence; or

2) City Hall of a reference city

for the appropriate group shown, whichever is closer.

CONSTRUCTION TYPE: HEAVY-ENTIRE STATE, HIGHWAY-ENTIRE STATE.
NON-RESIDENTIAL BLDG. EXCLUDES COOS, CURRY,
DOUGLAS & JOSEPHINE COUNTIES

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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CARPENTERS (Continued)

Reference Cities for Group 3 and 4 Carpenters

Eugene	Medford	Portland	Vancouver
Longview	North Bend	The Dalles	

Zones for Groups 5, 6 and 7 Carpenters are determined as follows:

- For those workers who reside within zone 1 of a reference city below, their zone pay differential shall be computed based upon the distance from the city hall of that city to the project site.
- For those workers who reside nearer to the project than is the city hall of any reference city below, the mileage from their residence to the project may be used in computing their zone pay differential.
- The zone pay differential for all other projects shall be computed from the city hall of Longview, North Bend, or Portland, whichever is closer to the project.

Reference Cities for Groups 5, 6 and 7

Astoria	Eugene	Newport	Salem
Bend	Klamath Falls	Portland	The Dalles
North Bend	Medford	Roseburg	Longview

Group 1

Auto. Nailing Machine Carpenters
Form Stripper
Manhole Builders
Non-irritating Ins.
Cabinet & Shelving Installers (wood or steel)

Group 3

Millwrights
Machine Erectors
Machinists

Group 5

Bridge, Dock & Wharf Builders
Piledrivermen

Group 7

Marine Piledriver

Group 2

Floor Layers & Finishers
Stationary Power Saw Operators
Wall & Ceiling Insulators
Irritating Insulation

Group 4

Millwright/Welders
(Certified Welders receive \$0.25/hour over Group 3)

Group 6

Boom Men

CEMENT MASONS

THIS TRADE IS TENDED BY "CONCRETE LABORERS" PG. 5

Zone 1 (Base Rate)

o Group 1	21.61	7.00
o Group 2	22.00	7.00
o Group 3	22.00	7.00
o Group 4	22.39	7.00

CEMENT MASONS (Continued)

Group 1 Cement Masons, finishing, hand chipping and patching grouting, end pointing, screed setting, plugging, filling bolt holes, dry packing, setting curb forms, planks, stakes, lines and grades.

Group 2 Composition Workers (includes installation of epoxy & other resinous toppings), and Power Machine Operators.

Group 3 Cement masons working on suspended, swinging and/or hanging scaffold.

Group 4 Cement Masons performing work of both Group 2 and Group 3 at the same time.

Zone Differential for Cement Masons
(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

Cities

Bend	Eugene	Medford	Salem	Vancouver
Corvallis	Longview	Portland	The Dalles	

DIVERS & DIVERS' TENDERS

o Divers	55.15	7.00
o Divers' Tenders	24.71	7.00

Depth Pay and Enclosure Pay are added to the Divers' Basic Hourly Rate to obtain the Total Hourly Rate for the diver.

Basic Hourly Rate	+	Hourly Depth Pay	+	Hourly Enclosure Pay	=	Divers' Total Hourly Pay
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o Divers' Depth Pay

<u>Depth of Dive</u>	<u>Hourly Depth Pay</u>
50-100 ft	((total ft- 50) x \$1.00)/hr.
100-150 ft	\$ 50 + ((total ft-100) x \$1.50)/hr.
150-200 ft	\$125 + ((total ft-150) x \$2.00)/hr.

CONSTRUCTION TYPE: HEAVY-ENTIRE STATE, HIGHWAY-ENTIRE STATE, NON-RESIDENTIAL BLDG. EXCLUDES COOS, CURRY, DOUGLAS & JOSEPHINE COUNTIES

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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DIVERS & DIVERS' TENDERS (Continued)

o Divers' Enclosure Pay(working without vertical escape)

Distance Travelled In the Enclosure	Hourly Enclosure Pay
5 - 50 ft	\$.50/hr
50 - 100 ft	\$.63/hr
100 - 150 ft	\$ 2.13/hr
150 - 200 ft	\$ 4.63/hr
200 - 300 ft	\$ 4.63 + ((total ft-200)x \$.05)/hr
300 - 450 ft	\$ 9.63 + ((total ft-300)x \$.10)/hr
450 - 600 ft	\$24.63 + ((total ft-450)x \$.20)/hr

DREDGING

Zone 1 (Base Rate):

o Leverman (Hydraulic, Dipper, Floating Clamshell)	26.71	6.85
o Asst. Engineer (including: Watch Engineer, Welder, Mechanic, Machinist)	25.91	6.85
o Tenderman (Boatman, Attending Dredge Plant); Fireman	25.32	6.85
o Fill Equipment Operator	24.79	6.85
o Assistant Mate (Deckhand); Oiler	23.16	6.85

Zone Differential for Dredging (Add to Zone 1 Rate)

Zone 2	2.00
Zone 3	3.00

- Zone 1: Center of job site not more than 30 miles from the City Hall of Portland
- Zone 2: More than 30 miles but not more than 50
- Zone 3: Over 50 miles

DRYWALL/WETWALL

o Drywall (Accoustical and Drywall Applicator)	20.58	8.02
o Wetwall (Lather)	19.56	9.04

ELECTRICIANS

Area 1:

o Electricians	20.44	5.45
o Cable Splicers	22.48	5.51

Area 2:

o Electricians	25.20	7.59
o Cable Splicers	26.46	7.62

Area 3:

	23.30	8.45
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Area 4:

o Electricians	25.90	6.98
o Cable Splicers	28.94	7.05

ELECTRICIANS (Continued)

Area 5:

o Electricians	25.50	8.92
o Cable Splicers	26.25	8.94

Area 6:

o Electricians	23.05	7.44
o Cable Splicers	23.05	7.44

Area 1	Area 2	Area 2(cont)	Area 3
Malheur	Baker	Umatilla	Coos
	Gilliam	Union	Curry
	Grant	Wallowa	Lincoln
	Morrow	Wheeler	Douglas (a)
			Lane (a)

Area 4	Area 5	Area 5(cont)	Area 6
Benton	Clackamas	Washington	Harney
Crook	Clatsop	Yamhill (d)	Jackson
Deschutes	Columbia		Josephine
Jefferson	Hood River		Klamath
Lane (b)	Multnomah		Lake
Linn	Sherman		Douglas (b)
Marion	Tillamook		
Polk	Wasco		
Yamhill(c)			

- a) Those portions lying west of a line running North and South from the NE corner of Coos County to the SE corner of Lincoln County
- b) That portion lying east of a line running North and South from the NE corner of Coos County to the SE corner of Lincoln County
- c) South half
- d) North half

ELEVATOR CONSTRUCTORS

Area 1

o Mechanic	26.89	6.85 + a
o Helper	18.82	6.64 + a
o Probationary Helper	13.45	.36

Area 2

o Mechanic	28.27	6.89 + a
o Helper	19.79	6.67 + a
o Probationary Helper	14.14	.38

- a) Plus 8% of basic hourly rate for employees with more than 5 years of service; 6% of basic hourly rate for 6 months to 5 years of service.

CONSTRUCTION TYPE: HEAVY-ENTIRE STATE, HIGHWAY-ENTIRE STATE, NON-RESIDENTIAL BLDG. EXCLUDES COOS, CURRY, DOUGLAS & JOSEPHINE COUNTIES

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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ELEVATOR CONSTRUCTORS (Continued)

Area 1	Area 2
Umatilla	All
Wallowa	Remaining
Union	Counties
Baker	

GLAZIERS

Area 1	22.87	4.94
(Add \$1.00 to base rate if safety belt is required by State safety regulations)		
(Add \$4.00 to base rate for work done from a non-motorized single-man bosun chair)		

Area 2	14.86	4.94
(Add \$0.50 to base rate if working at over 35 feet of free fall in height)		

Area 1	Area 2
All Counties except Malheur	Malheur

HIGHWAY / PARKING STRIPERS	20.43	4.09
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IRONWORKERS	21.50	9.92
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o Structural, Reinforcing, Ornamental, Riggers, Fence Erectors, Signal Men

LABORERS

Zone 1 (Base Rate):

o Group 1	18.34	7.05
o Group 2	18.72	7.05
o Group 3	19.04	7.05
o Group 4	19.30	7.05
o Group 5	16.55	7.05

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. A Group 1 base rate is used for General Laborer on such a site. For further information on this, call the Prevailing Wage Rate Coordinator at 731-4074.

Zone Differential for Laborers

(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

LABORERS (Continued)

- Zone 1: Projects within 30 miles of City Hall in the Cities listed below.
- Zone 2: More than 30 miles but less than 40 miles.
- Zone 3: More than 40 miles but less than 50 miles.
- Zone 4: More than 50 miles but less than 80 miles.
- Zone 5: More than 80 miles.

Reference Cities

Albany	Burns	Hermiston	Portland
Astoria	Coos Bay	Klamath Falls	Roseburg
Baker City	Eugene	Medford	Salem
Bend	Grants Pass	Pendleton	The Dalles

Group 1

- | | |
|--------------------------------------|------------------------------------|
| Asphalt Plant Laborers | Guardrail, Median Rail (c) |
| Asphalt Spreaders | Landscape or Planting Laborer |
| Batch Weighman | Leverman or Aggregate Spreader (d) |
| Broomers | Loading Spotter |
| Brush Burners/Cutters | Material Yard Man (e) |
| Carpenter Tender | Powderman Assistant |
| Car & Truck Loaders | Railroad Track Laborers |
| Change-House Man | Ribbon Setters (f) |
| Chipper Operator (a) | Rip Rap Man (Hand Placed) |
| Choke Setter | Road Pump Tender and moving |
| Clean-up Laborers *** | Sewer Laborer |
| Curing, concrete | Signalman |
| Demolition, wrecking (industrial)*** | Skipman |
| Driller Assistant | Slopers |
| Dry-shack Man | Sprayman |
| Dumpers, road oiling crew | Stake Chaser |
| Dumpmen for grading crew | Stockpiler |
| Elevator Feeders | Tie Back Shoring |
| Fence Builder | Timber Faller/Bucker (Hand Labor) |
| Fine Graders | Toolroom Man (Job Site) |
| Fire Watch | Weight-Man-Crusher (g) |
| Form Strippers (b) | |
| General Laborer *** | |

- a) Pittsburg or similar types
- b) Not swinging stages
- c) Reference Post, Guide Post, or Right-of Way Marker
- d) Flaherty, and similar types
- e) Including electrical
- f) Including steel forms
- g) Aggregate when used

*** Laborers can tear off roofs, clean up or handle roofing materials only when at least one new story is added or in demolition work, where no reroofing will occur.

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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LABORERS (Continued)

Group 2

Applicators (a)	Guniting or Sandblasting
Brush Cutters (b)	Pot Tender
Burners	Handlers/Mixers (f)
Choker Splicer	Pipe Doping & Wrapping
Clay Power Spreader(c)	Post Hole Digger, Air, gas or electric
Clean up Nozzleman- Green Cutter (d)	Power Tool Operators (g)
Concrete Laborers	Sand Blasting (wet)
Concrete Power Buggyman	Stake Setter
Crusher Feeder	Tampers
Demolition/Wrecking (e)	Vibrating Screed
Gunnite Nozzleman Tender	

- a) Including Pot Tender for same, applying protective material by hand or nozzle on utility lines or storage tanks on project
- b) Power saw
- c) And similar types of spreaders
- d) Concrete, rock, etc.
- e) Charred Materials
- f) Of all materials of an irritating nature including cement and lime
- g) Includes, but not limited to: Dry Pack Machine, Jackhammer, Chipping Guns, Paving Breakers

Group 3

Asbestos Removal	Power Saw Operators (c)
Bit Grinder	Sand Blasting (dry)
Concrete Saw Operator	Sewer Timberman
Drill Doctor	Track Liners (d)
Drill Operators (a)	Tugger Operator
Laser Beam (b)	Vibrators(all)
Manhole Builder	Water Blaster
Nippers & Timbermen	Welder
Nuclear Plant Worker	
Lead Shield	

- a) Air Tracks, Cat Drills, Wagon Drills, Rubber-mounted drills, and other similar types
- b) Pipe laying, applicable when employee assigned to move, set up, align Laser Beam.
- c) Bucking and falling
- d) Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks

LABORERS (Continued)

Group 4

Asphalt Rakers
Concrete Nozzlemen
Grade Checker
High Scalars, Strippers, Drillers (a)
Laser Beam (Tunnel), applicable when employee assigned to move, set-up, align laser beam
Loop Installation
Motorman - Dinky Locomotive
Pipe Layers (all)
Powder Men
Shield Operator
Tunnel Bull Gang (Above Ground)
Tunnel Chuck Tenders
Tunnel Miners
Tunnel Muckers/Brakeman/Concrete Crew/Bull Gang (Underground)
Tunnel Powderman

- a) Covers work in Swinging Stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping

Group 5

Clean-up Laborers (building only)***
Demolition, Wrecking, & Moving (building only)***
Flagger

*** Laborers can tear off roofs, clean up or handle roofing materials only when at least one new story is added or in demolition work, where no reroofing will occur.

LIMITED ENERGY ELECTRICIANS

May only be used for electrical work not exceeding 100 va in Class II and III installations (as defined in Article 725 of the National Electrical Code):

Area 1	20.05	6.55
Area 2	20.05	6.55
Area 3	16.79	4.25
Area 4	16.79	4.25
Area 5	16.79	4.25
Area 6	16.79	4.25
Area 7	16.79	4.25
Area 8	16.79	4.25
Area 9	20.05	6.55
Area 10	16.79	4.25
Area 11	16.79	4.25
Area 12	20.05	6.55
Area 13	20.05	6.55
Area 14	20.05	6.55

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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LIMITED ENERGY ELECTRICIANS (Continued)

<u>Area 1</u>	Clatsop, Columbia, Tillamook
<u>Area 2</u>	Clackamas, Multnomah, Washington, Yamhill (north half)
<u>Area 3</u>	Marion, Polk, Yamhill (south half)
<u>Area 4</u>	Benton, Lincoln, Linn
<u>Area 5</u>	Lane
<u>Area 6</u>	Douglas
<u>Area 7</u>	Coos, Curry
<u>Area 8</u>	Jackson, Josephine
<u>Area 9</u>	Hood River, Sherman, Wasco
<u>Area 10</u>	Crook, Deschutes, Jefferson
<u>Area 11</u>	Klamath, Lake, Harney
<u>Area 12</u>	Gilliam, Grant, Morrow, Umatilla, Wheeler
<u>Area 13</u>	Baker, Union, Wallowa
<u>Area 14</u>	Malheur

LINE CONSTRUCTION

Area 1:

o Group 1	26.91	6.44
o Group 2	24.27	6.35
o Group 3	18.83	5.15
o Group 4	20.91	5.23
o Group 5	18.26	5.14
o Group 6	17.15	5.09

Area 2:

o Cable Splicers	23.38	5.24
o Journeyman Lineman	21.20	5.16
o Line Equip. Mech. (Right-of-way)	17.98	5.01
o Line Equip. Oper.	17.98	5.01
o Groundman	13.15	4.80

Area 1 All counties except Malheur County

Area 2 Malheur County

Group 1

Cable Splicers
Leadman Pole Sprayer

Group 2

Certified Lineman Welder
Heavy Line Equipment Man
Lineman
Pole Sprayer

Group 3

Tree Trimmer

Group 4

Line Equipment Man

Group 5

Head Groundman
Jackhammer Man
Powderman

Group 6

Groundman

MARBLE SETTERS (Includes Granite)

THIS TRADE IS TENDED BY "TILE, TERRAZZO, BRICK MARBLE FINISHERS" PG: 12

Area 1	24.86	6.71
Area 2	23.12	5.88

Area 1

Baker	Hood River	Multnomah	Wallowa
Benton (a)	Lincoln (a)	Polk	Wasco (a)
Clackamas	Linn (a)	Sherman	Washington
Clatsop	Malheur (a)	Tillamook	Yamhill
Columbia	Marion	Umatilla	
Gilliam	Morrow	Union	

Area 2

Benton (b)	Douglas	Josephine	Linn (b)
Crook	Grant	Klamath	Malheur (b)
Coos	Harney	Lake	Wasco (b)
Curry	Jackson	Lane	Wheeler
Deschutes	Jefferson	Lincoln (b)	

a) North half

b) South half

PAINTERS & DRYWALL TAPERS

Area 1

o Brush, Roller	14.51	2.99
o Spray and Sandblasting	15.11	2.99

Area 2

o Brush Painting	18.46	3.14
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(Add \$0.60 to base rate for spray, sandblasting, other pressure blasting over 3000 psi, and steam cleaning.)
(Add \$0.50 to base rate for work over 60 ft high on swing stage, mechanical climber, spider, or bucket truck.)

o Drywall Tapers	22.80	5.83
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Area 1

Malheur County

Area 2

Remaining Counties

PLASTERERS

o Nozzleman	23.41	5.86
o Swinging scaffold	22.41	5.86
o all other work	21.91	5.86

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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PLUMBERS & STEAMFITTERS/PIPEFITTERS

Area 1 (Both) 22.19 6.67

Zone Differential for Area 1 Plumbers & Steamfitters/Pipefitters

(Add to Zone 1 Rate)

Zone 2	\$ 1.20 per hour
Zone 3	\$ 1.70 per hour
Zone 4	\$ 2.50 per hour
Zone 5	\$ 3.55 per hour
Zone 6	\$30.32 per day

Zone 1: Projects within 15 miles of City Hall in the Cities listed below.

Zone 2: More than 15 but less than 30

Zone 3: More than 30 but less than 40

Zone 4: More than 40 but less than 50

Zone 5: More than 50 but less than 100

Zone 6: More than 100 miles

With distances in Zone 6, 100 miles and beyond, there shall be a minimum of one hundred fifty-one dollars and sixty cents (\$151.60) per week or thirty dollars and thirty-two cents (\$30.32) per day worked.

Reference Cities

Boise, Idaho

Twin Falls, Idaho

Area 2 (Both)	27.30	9.05
Area 3 (Both)	26.15	8.25

Area 1	Area 2	Area 3
Baker	Grant (b)	All remaining counties
Harney (a)	Morrow	
Malheur	Umatilla	
	Wallowa	
	Union	

a) Except Northwest Portion

b) Except Southwest Corner

POWER EQUIPMENT OPERATORS

Zone 1 (Base Rate):

o Group 1	22.96	7.15
o Group 2	22.55	7.15
o Group 3	21.85	7.15
o Group 4	21.38	7.15
o Group 5	20.82	7.15
o Group 6	19.13	7.15

POWER EQUIPMENT OPERATORS (Continued)

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 731-4074.

ZONE RATES
(Add to Zone 1 Rate)

Zone 2	1.50
Zone 3	3.00

ZONE DESCRIPTIONS

Portland to Salem Metropolitan Area

Zone 1:

Projects within the boundary of a region described as follows: Those portions of Multnomah, Clackamas, and Marion Counties which are West of the western boundary of Mt. Hood National Forest and West of Mile Post 30 on Interstate 84 and West of Mile Post 30 on State Highway 26 and West of Mile Post 30 on Highway 22. Also those portions of Washington County East of Highway 47, and of Yamhill County East of Highway 47 and Hwy. 99W.

Zone 2:

Projects outside of any Zone 1, but less than 50 miles from the Portland city hall.

Zone 3:

Projects outside of any Zone 1 or 2, and more than 50 miles from the Portland city hall.

Albany, Eugene, Roseburg, Grants Pass, Medford

Zone 1:

Projects within 30 miles of the City Hall of the above cities.

Zone 2:

Projects outside of any Zone 1 and more than 30 miles but less than 50 miles from the city hall.

Zone 3:

Projects outside of any Zone 1 or 2, and more than 50 miles from the city hall.

Longview, Coos Bay, Klamath Falls, Bend

Zone 1:

Projects within 20 miles of the City Hall of the above cities.

Zone 2:

Projects outside of any Zone 1, and more than 20 but less than 40 miles from the city hall.

Zone 3:

Projects outside of any Zone 1 or 2, and more than 40 miles from the city hall.

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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POWER EQUIPMENT OPERATORS (Continued)

Astoria, The Dalles, Pendleton, LaGrande, Baker, Ontario, McMinnville

Zone 1 :
Projects within 5 miles of the city hall of the above cities.
Zone 2:
No Zone 2 for these cities.
Zone 3:
Projects outside of any Zone 1 or 2, and more than 5 miles from the city hall.

ASPHALT

- 6 Plant Oiler
- 6 Plant Fireman
- 6 Pugmill Operator (any type)
- 6 Truck mounted asphalt spreader, with screed
- 4 Screed Operator
- 5 Extrusion Machine Operator
- 2 Asphalt Plant Operator (any type)
- 4 Asphalt Paver Operator
- 5 Roller Operator (any asphalt mix)
- 4 Diesel-Electric Engineer, Plant
- 5 Asphalt Burner and Reconditioner Operator anytype),84
- 4 Roto-Mill, pavement profiler operator, under 6 foot lateral cut
- 5 Roto-Mill, pavement profiler, ground man
- 2 Roto-Mill, pavement profiler operator, 6 foot lateral cut and over

BLADE

- 6 Blade Operator, pulled type
- 4 Blade Operator
- 4 Blade Operator, Finish
- 4 Blade Operator, externally controlled by electronic, mechanical hydraulic means
- 4 Blade Operator, multi-engine
- 2 Auto Grader or "Trimmer" Operator

BULLDOZERS

- 4 Bulldozer Operator
- 4 Drill Cat Operator
- 4 Side-Boom Operator
- 2 Tandem bulldozer operator (quadnine and similar type, D-11)
- 4 Bulldozer Operator, twin engine (TC 12 and similar type, D-10)
- 4 Cable-Plow Operator (any type)

CLEARING

- 4 Log Skidder Operator
- 4 Chipper Operator
- 4 Incinerator Operator
- 4 Stump Splitter Operator
- 4 Faller/Buncher Operator

POWER EQUIPMENT OPERATORS (Continued)

COMPRESSORS

- 6 Compressor Operator (any power), under 1,250 cu. ft.total capacity
- 5 Compressor Operator (any power), over 1,250 cu. ft. capacity)

COMPACTORS - Self-Propelled

- 5 Compactor Operator, including vibratory
- 5 Wagner Patcor Operator or similar type (without blade)
- 4 Compactor Operator, with blade
- 4 Compactor Operator, multi-engine

CONCRETE

- 6 Plant Oiler
- 6 Assistant Conveyor Operator
- 6 Conveyor Operator
- 6 Mixer Box Operator (C.T.B., dry batch, etc.)
- 6 Cement Hog Operator
- 6 Concrete Saw Operator
- 6 Concrete Curing Machine Operator (riding type)
- 6 Wire Mat or Brooming Machine Operator
- 5 Combination Mixer and Compressor Operator, gunite work
- 5 Concrete Batch Plant Quality Control Operator
- 5 Belcrete Operator
- 5 Pumpcrete Operator (any type)
- 5 Pavement Grinder and/or Grooving Machine Operator (riding type)
- 4 Mixer Mobile Operator
- 5 Cement Pump Operator, Fuller-Kenyon and similar
- 5 Concrete Pump Operator
- 5 Grouting Machine Operator
- 4 Screed Operator
- 4 Concrete Cooling Machine Operator
- 5 Concrete Mixer Operator, single drum, any capacity
- 2 Batch Plant and/or Wet Mix Operator, 1 and 2 drum
- 1 Batch Plant and/or Wet Mix Operator, 3 units or more
- 5 Cast in place pipe laying machine
- 5 Maginnis Internal Full Slab Vibrator Operator
- 5 Concrete Finishing Machine Operator, Clary, Johnson, Bidwell, Burgess bridge deck or similar type
- 5 Curb Machine Operator, Mechanical Berm, Curb and/or Curb and Gutter
- 5 Concrete Joint Machine Operator
- 5 Concrete Planer Operator
- 5 Tower Mobile Operator
- 5 Power Jumbo Operator setting slip forms etc., in tunnels
- 5 Slip Form Pumps, power driven hydraulic lifting device for concrete forms
- 5 Concrete Paving Machine Operator
- 5 Concrete Finishing Machine Operator
- 5 Concrete Spreader Operator
- 4 Concrete Paving Road Mixer
- 2 Automatic Concrete Slip Form Paver Operator

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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POWER EQUIPMENT OPERATORS (Continued)

CONCRETE (Continued)

- 2 Concrete Canal Line Operator
- 4 Concrete Breaker
- 4 Reinforced Tank Banding Machine (K-17 or similar types)
- 2 Concrete Profiler, Diamond Head

CRANE

- 6 Oiler
- 6 Truck Crane Oiler-Driver, 25 ton capacity or over
- 6 Fireman, all equipment
- 6 A-Frame Truck Operator, single drum
- 6 Tugger or Coffin Type Hoist Operator
- 5 Helicopter Hoist Operator
- 5 Hoist Operator, single drum
- 5 Elevator Operator
- 5 A-Frame Truck Operator, double drum
- 5 Boom Truck Operator
- 4 Chicago Boom and similar types
- 4 Lift Slab Machine Operator
- 4 Boom Type lifting device, 5 ton capacity or less
- 4 Cherry Picker or similar type crane-hoist, 5 ton capacity or less
- 4 Hoist Operator, two drum
- 4 Hoist Operator, three or more drums
- 4 Derrick Operator, under 100 ton
- 4 Hoist Operator, stiff leg, guy derrick or similar type, 50 ton and over
- 4 Cableway Operator, up to 25 tons
- 4 Bridge Crane Operator, Locomotive, Gantry, Overhead
- 2 Cableway Operator, 25 tons and over
- 1 Helicopter Operators, when used in erecting work

HYDRAULIC CRANE OPERATOR

- 5 Hydraulic Boom Truck Operator, Pittman
- 4 Hydro Crane Operator, under 50 tons
- 3 Hydro Crane Operator, 50 tons through 89 tons
- 2 Hydro Crane Operator, 90 tons through 199 tons
- 1 Hydro Crane Operator, 200 tons and over

TOWER/WHIRLEY OPERATOR

- 2 Tower Crane Operator
- 2 Whirley Operator, under 90 tons
- 1 Whirley Operator, 90 tons and over

LATTICE BOOM CRANE OPERATOR

- 4 Lattice Boom Crane Operator, under 50 tons
- 3 Lattice Boom Crane Operator, 50 tons through 89 tons, and less than 150 ft boom
- 2 Lattice Boom Crane Operator, 90 tons through 199 tons, and/or 150 ft -200 ft boom
- 1 Lattice Boom Crane (Operator, 200 tons and over, and/or over 200 ft boom

POWER EQUIPMENT OPERATORS (Continued)

CRUSHER

- 6 Crusher Oiler
- 6 Crusher Feederman
- 4 Generator Operator
- 4 Diesel-Electric Engineer
- 4 Grizzley Operator
- 2 Crusher Plant Operator

DRILLING

- 6 Drill Assistant
- 6 Auger Oiler
- 5 Churn Drill and Earth Boring Machine Operator
- 4 Drill Doctor
- 4 Boring Machine Operator
- 4 Driller - Percussion, Diamond, Core, Cable, Rotary and similar type
- 4 Cat Drill (John Henry)

FLOATING EQUIPMENT

- 6 Deckhand
- 6 Boatman
- 5 Fireman
- 4 Diesel-Electric Engineer
- 4 Jack Operator, elevating barges
- 4 Barge Operator, self-unloading
- 4 Piledriver Operator (not crane type)
- 4 Floating Clamshell, etc. Operator, under 3 cu. yd.(only for construction projects - otherwise see Dredging)
- 4 Floating Crane (derrick barge) Operator, less than 30 tons
- 2 Floating Clamshell, etc. Operator, 3 cu. yd. and over (only for construction projects - otherwise see Dredging)
- 2 Floating Crane (derrick barge) Operator, 30 tons but less than 150 tons
- 1 Floating Crane, 150 tons and over

FORK LIFT

- 6 Self-Propelled Scaffolding Operator (excluding working platform)
- 6 Fork Lift or Lumber Stacker Operator
- 6 Ross Carrier Operator
- 5 Lull Hi-Lift Operator, or similar type
- 5 Fork Lift, over 5 tons
- 3 Rock Hound Operator

GENERATORS

- 4 Generator Operator
- 4 Diesel-Electric Engineer

GUARDRAIL EQUIPMENT

- 6 Oiler
- 6 Auger Oiler
- 6 Oiler, combination guardrail machines
- 4 Guardrail Punch Operator (all types)
- 6 Guardrail Punch Oiler
- 4 Guardrail Auger Operator (all types)
- 4 Combination Guardrail machines. i.e. punch, auger etc.

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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POWER EQUIPMENT OPERATORS (Continued)

HAZARDOUS WASTE REMOVAL

- 5 Assistant to the Engineer (Oiler)
- 4 Assistant Incinerator Control Board Operator
- 3 Incinerator Control Board Operator

HEATING PLANT

- 6 Temporary Heating Plant Operator
- 4 Surface Heater and Planer Operator

HYDRAULIC HOES

- 5 Hydraulic Backhoe Operator, wheel type 3/8 cu. yd. and under with or without front end attachments 2-1/2 cu. yd. and under (Ford, John Deere, Case type)
- 4 Hydraulic Backhoe Operator, Track Type 3/8 cu.yd. (Note: Over 3/8 cu. yd. takes Shovel Classification rate)

LOADERS

- 6 Bobcat, Skid Steer (under 1 cubic yard)
- 6 Bucket Elevator Loader Operator, Barber-Greene and similar types
- 5 Loaders, rubber-tired type, 2-1/2 cu. yd. and under
- 5 Elevating Grader Operator, Tractor Towed requiring Operator or Grader
- 4 Belt Loader Operator, Kolman and Ko Cal types
- 4 Loader Operator, front end and overhead, 2-1/2 cu. yd. and under 4 cu. yd.
- 4 Elevating Loader Operator, Athey and similar types
- 4 Elevating Grader Operator, Sierra, Euclid or similar types
- 3 Loader Operator, 4 cu. yd. but less that 6 cu. yd.
- 2 Loader Operator, 6 cu. yd. and over

OILERS

- 6 Oiler
- 6 Guardrail Punch Oiler
- 6 Truck Crane Oiler-Driver, 25 ton or over
- 6 Auger Oiler
- 6 Grade Oiler, required to check grade
- 5 Service Oiler (Greaser)
- 6 Grade Checker

PILEDRIVERS

Use Crane rates when driving or pulling piling)

- 4 Hammer Operator
- 4 Piledriver Operator (not crane type)

PIPE LINE - Sewer Water

- 6 Tar Pot Fireman
- 6 Tar Pot Fireman (power agitated)
- 6 Hydraulic Pipe Press Operator
- 5 Hydra Hammer or similar types
- 5 Pavement Breaker Operator
- 4 Pipe Cleaning Machine Operator
- 4 Pipe Doping Machine Operator

POWER EQUIPMENT OPERATORS (Continued)

PIPE LINE - Sewer Water (Continued)

- 4 Pipe Bending Machine Operator
- 4 Pipe Wrapping Machine Operator
- 4 Boring Machine Operator
- 4 Back Filling Machine Operator

PUMPS

- 6 Pump Operator, any power
- 6 Hydrostatic Pump Operator
- 5 Pump Operator, more than 5 (any size)
- 5 Pot Rammer Operator

RAILROAD EQUIPMENT

- 6 Brakeman
- 6 Oiler
- 6 Switchman
- 6 Motorman
- 6 Ballast Jack Tamper Operator
- 5 Locomotive Operator
- 5 Ballast Regulator Operator
- 5 Ballast Tamper Multi-Purpose Operator
- 5 Track Liner Operator
- 5 Tie Spacer Operator
- 5 Shuttle Car Operator

REMOTE CONTROL

- 2 Remote controlled earth-moving equipment

REPAIRMEN. Heavy Duty

- 6 Parts Man (Tool Room)
- 6 H.D. Repairman Assistant
- 6 Welder's Assistant
- 4 Diesel-Electric Engineer (Plant or Floating)
- 4 Bolt Threading Machine Operator
- 4 Drill Doctor (Bit Grinder)
- 4 H.D. Mechanic
- 4 H.D. Welder
- 4 Machine Tool Operator
- 4 Combination H.D. Mechanic-Welder, when dispatched and/or when required to do both
- 4 Welder - Certified, when dispatched and/or required

RUBBER-TIRED SCRAPERS

- 4 Rubber-tired Scraper Operator, single engine, single scraper
- 4 Self-loading, paddle wheel, auger type under 15 cu. yd.
- 4 Rubber-tired Scraper Operator, twin engine
- 4 Rubber-tired Scraper Operator, with push-pull attachments
- 3 Rubber-tired Scraper Operator, with tandem scraper
- 2 Rubber-tired Scraper Operator, with tandem scrapers, multi-engine
- 4 Self-loading, paddle wheel, auger type 15 cu. yd. and over, single engine
- 3 Self-loading, paddle wheel, auger type, finish and/or 2 or more units

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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POWER EQUIPMENT OPERATORS (Continued)

SHOVEL, DRAGLINE, CLAMSHELL, BACKHOE, SKOOPER, ETC., OPERATOR

- 6 Oiler
- 6 Grade Oiler (required to check grade)
- 6 Grade Checker
- 6 Fireman
- 4 Diesel-Electric Engineer
- 4 Stationary Drag Scraper Operator
- 4 Shovel, Dragline, Clamshell, Hoe etc., Operator under 3 cu. yd.
- 4 Grade-all Operator
- 2 Shovel, Dragline, Clamshell, Hoe etc., Operator 3 cu. yd. and over

SIGNALMAN

- 6 Bell Boy, phones, etc., Operator
- 6 Helicopter Radioman (ground)

SURFACING (BASE) MATERIAL

- 6 Roller Operator, grading of base rock (not asphalt)
- 5 Roller Operator, Oiling, C.T.B.
- 6 Tamping Machine Operator, mechanical, self-propelled
- 6 Hydrographic Seeder Machine Operator, straw, pulp or seed
- 5 Rock Spreaders, self-propelled
- 5 Pulva-mixer or similar types
- 4 Blade Mounted Spreaders, Ulrich and similar types
- 5 Chip Spreading Machine Operator
- 5 Lime Spreading Operator

SWEEPERS

- 6 Broom Operator, self-propelled
- 5 Sweeper Operator (Wayne type) self-propelled

TRACTOR - RUBBER TIRED

- 5 Tractor Operator, rubber-tired, 50 H.P. Flywheel and under
- 4 Tractor Operator, rubber -tired, over 50 H.P. Flywheel
- 4 Tractor Operator, with boom attachment
- 4 Rubber-tired Dozers and Pushers (Michigan, Cat, Hough type)

TRENCHING MACHINE

- 6 Oiler
- 6 Grade Oiler (required to check grade)
- 5 Trenching Machine Operator, maximum digging capacity 3 ft. depth
- 4 Trenching Machine Operator, maximum digging capacity over 3 ft. depth
- 4 Back Filling Machine Operator
- 2 Wheel Excavator
- 2 Canal Trimmer
- 2 Band Wagon (in conjunction with wheel excavator)

POWER EQUIPMENT OPERATORS (Continued)

TUNNEL

- 4 Mucking Machine Operator
- 6 Conveyor Operator (any type)
- 4 Shield Operator
- 6 Air Filtration Equipment Operator
- 6 Dinkey Operator
- 6 Oiler
- 4 Tunnel Boring Machine Operator

WELDING MACHINES

- 6 Welding Machine Operator

UNDERWATER EQUIPMENT

- 2 Underwater Equipment Operator, remote or otherwise, when used in construction work

ROOFERS

(Installation and removal of sheetmetal roofing is done by sheetmetal workers.)

Area 1:

- o Roofers 19.75 5.55
- o Handling coal tar pitch 21.73 5.55

Area 2:

- o Roofers 17.64 5.78

(Add \$2.00 per hour to Fringe for work with irritable Bituminous material.)

Area 3:

- o Roofers 14.85 4.07

(Add \$1.50 per hour to Fringe for work with irritable Bituminous material.)

Area 4:

- o Roofers 16.00 6.05

(Add \$2.00 per hour to Fringe for work with irritable Bituminous material.)

Area 5:

- o Roofers 16.92 5.60

(Add \$3.00 per hour to Fringe for work with irritable Bituminous material.)

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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ROOFERS (Continued)

Area 1	Area 1(cont)	Area 2	Area2(cont)
Baker	Multnomah	Benton	Klamath
Clackamas	Sherman	Coos	Lake
Clatsop	Tillamook	Crook	Lane
Columbia	Wasco	Curry	Lincoln
Jefferson	Washington	Deschutes	Linn
Gilliam	Wheeler	Douglas	Marion
Grant		Harney	Polk
Hood River		Jackson	Yamhill
		Josephine	
Area 3	Area 4	Area 5	
Malheur	Umatilla	Morrow	
	Union		
	Wallowa		

SHEETMETAL WORKERS

Area 1	22.28	8.49
(Add \$1.00 to base rate for work performed on any swinging platform, swinging chair, or swinging ladder) (Add \$1.00 to base rate for work with lead or installing material in a plant that uses lead in any form to manufacture a product, (excluding soldering)). (Add \$1.00 to base rate for work performed in a confined space as defined by OSHA.)		
Area 2	19.66	6.15
(Add \$1.75 to base rate for work performed whenever it is possible for worker to fall 30 feet or more) (Add \$1.75 to base rate for work performed in an area where epoxy resins or other injurious chemicals are being applied)		
Area 3	23.43	7.25
(Add \$1.00 to base rate for work where it is necessary to wear a chemically activated face mask) (Add \$1.00 to base rate for work where employees required to wear a fresh air mask due to nuclear related work) (Add \$.45 to base rate for work on a swinging stage, swinging scaffold or bosun chair in excess of 30 feet above the ground)		
Area 4	19.92	5.65
Area 5	19.80	5.77

Area 1

Benton	Gilliam	Linn	Tillamook
Clackamas	Grant	Marion	Wasco
Clatsop	Harney	Multnomah	Washington
Columbia	Hood River	Polk	Wheeler
Crook	Jefferson	Sherman	Yamhill
Deschutes	Lincoln		

SHEETMETAL WORKERS (Continued)

Area 2	Area 3	Area 4	Area 5
Baker	Morrow	Douglas	Coos
Malheur	Umatilla	Jackson	Curry
	Union	Josephine	
	Wallowa	Klamath	
		Lake	
		Lane	

SOFT FLOOR LAYERS 19.70 5.25 + a

a) plus 4% of basic hourly rate for employees with less than one year of service, 6% for those with more than one year.

SPRINKLER FITTERS 21.40 6.28

TENDERS TO MASON TRADES 20.39 6.00

o Tenders to Bricklayers and Stone Masons. Mortar Mixers.
(Add \$0.50 to base rate for refractory work)
(Add to base rate an amount equal to that received for safety belt requirements or other unusual job conditions by the mechanic this worker is tending)

TENDERS TO PLASTERERS 19.09 6.00

TILE SETTER/ TERRAZZO WORKER 22.18 5.80

THIS TRADE IS TENDED BY "TILE, TERRAZZO, BRICK & MARBLE FINISHERS"

(Add \$.50 to base rate if safety belt required by State safety regulations.)
(Add \$1.00 to base rate if work involves epoxy, furnane, alkor acetylene black grouting or waterproof membrane.)

TILE, TERRAZZO, BRICK & MARBLE FINISHERS 16.77 4.27

o Assists Tile Setters, Brick Layers, Marble Masons, and Terrazzo Workers by striking, sawing, cleaning, washing or grouting. Does not lay or set any material.
(Add \$.50 to base rate if safety belt required by State safety regulations.)
(Add \$1.00 to base rate if work involves epoxy, furnane, alkor acetylene black grouting or waterproof membrane.)
(Add \$0.75 to fringe for refractory repair work.)

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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TRUCK DRIVERS

Zone 1 (Base Rate):

o Group 1	20.32	7.60
o Group 2	20.44	7.60
o Group 3	20.57	7.60
o Group 4	20.82	7.60
o Group 5	21.04	7.60
o Group 6	21.19	7.60
o Group 7	21.39	7.60

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 731-4074.

**Zone Differential for Truck Drivers
(Add to Zone 1 Rate)**

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants-Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

Work

Group

A-Frame or Hydra-lift Truck w/load bearing surface	1
Battery Rebuilder	1
Bus or Man-Haul Driver	1
Concrete Buggies (Power operated) Drivers and Helpers handling sacked concrete—add 15¢ per hour	1
Dump Trucks, Side, End and Bottom Dumps, including Semi-Trucks and trains or combinations thereof:	
Up to and inc. 40 cu. yds	1
Over 10 cu. yds. and inc. 30 cu. yds	3
Over 30 cu. yds. and inc. 50 cu. yds	4
Over 50 cu. yds. and inc. 60 cu. yds	5
Over 60 cu. yds. and inc. 80 cu. yds	6
Over 80 cu. yds. and inc. 100 cu. yds	7

TRUCK DRIVERS (Continued)

Dumpsters or Similar Equipment—all sizes	2
Flaherty Spreader Driver or Leverman	2
Lift Jitneys, Fork Lifts—all sizes—used in loading, unloading & transporting material on job site	1
Loader and/or Leverman on Concrete Dry Batch Plant, manually operated	1
Low Bed Equipment, Flat Bed Semi-Truck and Trailer or Doubles transporting equipment or wet or dry materials	2
Lubrication Man, Fuel Truck Driver, Driver, Tireman, Wash Rack, Steam Cleaner or combination	1
Lumber Carrier, Driver-Straddle Carrier—used in loading, unloading and transportation of material on job site	2
Oil Distributor Driver or Leverman	2
Pilot Car	1
Slurry Truck Driver or Leverman	1
Solo Flat Bed and Misc. Body Truck, 0-10 tons	1
Transit Mix and Wet or Dry Mix Trucks:	
5 cu. yds. and under	1
Over 5 cu. yds. and inc. 7 cu. yds	2
Over 7 cu. yds. and inc. 11 cu. yds	3
Over 11 cu. yds. and inc. 15 cu. yds	4
Team Drivers	1
Tireman, full-time basis	1
Truck Assistant	1
Truck Mechanic—Welder—Body Repairman	3
Truck Mechanic Assistant	1
Water Wagons (Rated Capacity) up to:	
3000 gallons	1
3000 to 5000 gallons	2
5000 to 10,000 gallons	3
10,000 to 15,000 gallons	4
Winch Truck—takes classification of truck on which winch is mounted	

WELDERS; RIGGERS

Receive rate for craft performing operation to which welding and rigging are incidental:

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
ASBESTOS WORKERS			ELECTRICIANS		
Installation of insulation on mechanical systems for Thermal and Acoustical purposes, also the installation of fire stop penetrations on Electrical and Mechanical Systems.			Coos, Curry, Douglas (western portion)		
Journeyman Asbestos Worker	23.98	6.38	o Electricians	23.30	8.45
Removal of regulated material on mechanical systems* which are not going to be scrapped.**			Josephine, Douglas (eastern portion)		
o Hazardous Materials Handler Mechanic	13.75	3.50	o Electricians	23.05	7.44
* Mechanical systems include pipes, boilers, ducts, flues breaching, grease ducts and acid ducts. This also includes all labor connected with the handling and distribution of materials for these systems.			o Cable Splicers	23.05	7.44
** The removal of all regulated materials from mechanical systems is exclusively the work of Hazardous Materials Handlers, unless the mechanical systems are going to be scrapped. Laborers do all removal of regulated materials on mechanical systems to be scrapped and any non mechanical(walls,ceilings,floors,beams etc.) insulation. They also do loading of any regulated material after it has been removed, bagged and tagged, as well as cleanup at the removal site and all work done at the disposal site. Persons performing the removal of regulated materials are classified as Group 3 Laborers.			ELEVATOR CONSTRUCTORS		
			o Mechanic	28.27	6.89 + a
			o Helper	19.79	6.67 + a
			o Probationary Helper	14.14	.38
			a) Plus 8% of basic hourly rate for employees with more than 5 years of service; 6% of basic hourly rate for 6 months to 5 years of service.		
			GLAZIERS		
				22.87	4.94
			(Add \$1.00 to base rate if safety belt is required by State safety regulations) (Add \$4.00 to base rate for work done from a non-motorized single-man bosun chair)		
			INSULATORS (BAT AND BLOWN)		
				7.85	0.00
			IRONWORKERS		
				21.50	9.92
			o Structural, Reinforcing, Ornamental, Riggers, Fence Erectors, Signal Men		
			LABORERS		
				9.10	4.65
			LIMITED ENERGY ELECTRICIANS		
				16.79	4.25
			May only be used for electrical work not exceeding 100 va in Class II and III installations (as defined in Article 725 of the National Electrical Code):		
			PAINTERS		
				13.00	0.00
			PLASTERERS		
			o Nozzleman	23.41	5.86
			o Swinging scaffold	22.41	5.86
			o all other work	21.91	5.86
BOILERMAKERS					
	24.07	9.31			
BRICKLAYERS/STONEMASONS					
THIS TRADE IS TENDED BY "TENDERS TO MASONS" -PG. 15	22.12	5.88			
CARPENTERS					
	13.20	3.67			
CEMENT MASONS					
	10.00	0.00			
DRYWALL/WETWALL					
o Drywall (Accoustical and Drywall Applicator)	20.58	8.02			
o Wetwall (Lather)	19.56	9.04			

NOTE: Regulated materials are those materials that are regulated for the purpose of protecting the environment or for personal protection by either E.P.A., O.S.H.A., DEQ or Federal O.S.H.A.

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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PLUMBERS & STEAMFITTERS/PIPEFITTERS

26.15 8.25

POWER EQUIPMENT OPERATORS

Backhoes	12.94	1.56
Bulldozers	13.50	1.56
Loader	13.50	1.56

ROOFERS

8.00 0.00

SHEETMETAL WORKERS

Coos, Curry	19.80	5.77
Douglas, Josephine	19.92	5.65

SOFT FLOOR LAYERS

19.70 5.25 + a

a) plus 4% of basic hourly rate for employees with less than one year of service, 6% for those with more than one year.

SPRINKLER FITTERS

21.40 6.28

TENDERS TO MASON TRADES

20.39 6.00

o Tenders for Bricklayers and Stone Masons. Mortar Mixers.
(Add \$0.50 to base rate for refractory work)
(Add to base rate an amount equal to that received for safety belt requirements or other unusual job conditions by the mechanic this worker is tending)

TENDERS TO PLASTERERS

19.09 6.00

TILE SETTER/

TERRAZZO WORKER

22.18 5.80

THIS TRADE IS TENDED BY "TILE, TERRAZZO, BRICK & MARBLE FINISHERS"

(Add \$.50 to base rate if safety belt required by State safety regulations.
(Add \$1.00 to base rate if work involves epoxy, furnane, alkor acetylene black grouting or waterproof membrane.)

MARBLE FINISHERS

16.77 4.27

o Assists Tile Setters, BrickLayers, Marble Masons, and Terrazzo Workers by striking, sawing, cleaning, washing or grouting. Does not lay or set any material.
(Add \$.50 to base rate if safety belt required by State safety regulations.
(Add \$1.00 to base rate if work involves epoxy, furnane, alkor acetylene black grouting or waterproof membrane.)
(Add \$0.75 to fringe for refractory repair work.)

TRUCK DRIVERS

Zone 1 (Base Rate):

o Group 1	20.32	7.60
o Group 2	20.44	7.60
o Group 3	20.57	7.60
o Group 4	20.82	7.60
o Group 5	21.04	7.60
o Group 6	21.19	7.60
o Group 7	21.39	7.60

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 731-4466

Zone Differential for Truck Drivers (Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
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TRUCK DRIVERS (Continued)

Work	Group
A-Frame or Hydra-lift Truck w/load bearing surface	1
Battery Rebuilder	1
Bus or Man-Haul Driver	1
Concrete Buggies (Power operated) Drivers and Helpers handling sacked cement—add 15¢ per hour	1
Dump Trucks, Side, End and Bottom Dumps, including Semi-Trucks and trains or combinations thereof: Up to and inc. 10 cu. yds	1
Over 10 cu. yds. and inc. 30 cu. yds	3
Over 30 cu. yds. and inc. 50 cu. yds	4
Over 50 cu. yds. and inc. 60 cu. yds	5
Over 60 cu. yds. and inc. 80 cu. yds	6
Over 80 cu. yds. and inc. 100 cu. yds	7
Dumpsters or Similar Equipment all sizes	2
Flaherty Spreader Driver or Leverman	2
Lift Jitneys, Fork Lifts—all sizes—used in loading, unloading & transporting material on job site	1
Loader and/or Leverman on Concrete Dry Batch Plant, manually operated	1
Low Bed Equipment, Flat Bed Semi-Truck and Trailer or Doubles transporting equipment or wet or dry materials	2
Lubrication Man, Fuel Truck Driver, Driver, Tireman, Wash Rack, Steam Cleaner or combination	1
Lumber Carrier, Driver-Straddle Carrier—used in loading, unloading and transportation of material on job site	2
Oil Distributor Driver or Leverman	2
Pilot Car	1
Slurry Truck Driver or Leverman	1
Solo Flat Bed and Misc. Body Truck, 0-10 ton	1
Transit Mix and Wet or Dry Mix Trucks: 5 cu. yds. and under	1
Over 5 cu. yds. and inc. 7 cu. yds	2
Over 7 cu. yds. and inc. 11 cu. yds	3
Over 11 cu. yds. and inc. 15 cu. yds	4
Team Drivers	1

TRUCK DRIVERS (Continued)

Work	Group
Tireman, full-time basis	1
Truck Assistant	1
Truck Mechanic-Welder-Body Repairman	3
Truck Mechanic Assistant.	1
Water Wagons (Rated Capacity) up to: 3000 gallons	1
3000 to 5000 gallons	2
5000 to 10,000 gallons	3
10,000 to 15,000 gallons	4
Winch Truck—takes classification of truck on which winch is mounted	

WELDERS: RIGGERS

Receive rate for craft performing operation to which welding and rigging are incidental.

RECEIVED

JUL-1-7-1997

AMENDMENT NUMBER 1 TO THE JULY 1, 1997
PREVAILING WAGE RATES FOR PUBLIC WORKS CONTRACTS IN OREGON
OREGON DETERMINATION 97-03/97-04
EFFECTIVE JULY 1, 1997

OSTRO Risk & Contract
Management Division

There has been a change in the Prevailing Wage Rate of THREE different trades since the most recent PWR Booklet was published on July 1, 1997.

Updates in OREGON DETERMINATION 97-03/97-04

BRICKLAYERS/STONEMASONS
MARBLE SETTERS
ROOFERS

are shown on the back of this sheet. For the sake of brevity, we have not included all of the explanatory information that is found in the regular booklet. Refer to the relevant parts of the July 1997 Booklet for details concerning this amendment. If you have any questions, call the PWR Coordinator at (503) 731-4074 in Portland.

ALL RATES IN THE JULY 1997 BOOKLET WHICH ARE NOT AMENDED REMAIN IN FORCE.



BUREAU OF LABOR AND INDUSTRIES

JACK ROBERTS
Commissioner

800 NE Oregon St. # 32
Portland, Oregon 97232

IMPORTANT NOTICE CONCERNING PREVAILING WAGE RATES

BULK RATE

U.S. Postage
PAID
Portland,
Oregon
Permit No. 5

TRADE	BASIC HOURLY RATE	FRINGE BENEFITS	TRADE	BASIC HOURLY RATE	FRINGE BENEFITS
<u>BRICKLAYERS/STONEMASONS</u>					
Area 2	22.62	6.38			
<u>MARBLE SETTERS</u>					
Area 2	23.62	6.38			
<u>ROOFERS</u>					
Area 4	17.00	6.05			
Area 5	17.60	5.60			

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 97-2544, FOR THE PURPOSE OF AUTHORIZING THE RELEASE OF A REQUEST FOR BIDS FOR THE INSTALLATION OF A REPLACEMENT FIRE SPRINKLER SYSTEM FOR METRO SOUTH STATION

Date: July 15, 1997

Presented by: Bruce Warner
Pete Hillman

PROPOSED ACTION

Adopt Resolution No. 97-2544 authorizing release of a Request for Bids (RFB #97-19-REM) and execution of the resulting contract by the Executive Officer, for installation of a replacement fire sprinkler system at Metro South Station as well as removal of the existing system.

FACTUAL BACKGROUND AND ANALYSIS

The existing sprinkler system at Metro South Station is a black steel- dry pipe system, most of which was installed in 1982. The existing system has deteriorated to the point where it is leaking and has been temporarily disabled on a number of occasions due to pipes breaking. Staff, in consultation with Metro's insurer, has determined that replacement of the system is the most prudent and cost-effective course of action given the age and condition of the system. A fully functional fire suppression system is vital for the protection of people and the facility, particularly given the materials being handled and the closeness of the onsite hazardous waste facility. These materials include occasional loads that are on fire or contain hazardous materials.

As contained in the Capital Improvement Plan, staff retained an engineering firm that has designed a replacement galvanized dry pipe sprinkler system. The specifications for the system and its installation are included in the RFB attached to Resolution No. 97-2544 as Exhibit "A". The design has also been submitted for review by Metro's insurer as well as by the City of Oregon City. No significant changes are expected based on these reviews that would affect the cost or scope of the project, since both parties provided input in the design of the system.

Per the RFB, removal of the existing system and installation of its replacement would occur in the November 1997 to January 1998 timeframe in order to avoid peak periods at the station. Most of the work would take place when the facility is closed for the day to further minimize interference with operations.

The project is contained in Metro's Adopted Capital Improvement Plan (CIP) that lists replacement in FY 1998-99. The project has been moved forward to FY 1997-98 due to safety concerns over the existing system as described above. Accelerating the project should not affect the execution of other renewal and replacement projects that will be needed since adequate funds are budgeted in the contingency portion of the Renewal and Replacement Account.

BUDGET IMPACTS

The Engineer's Estimate is approximately \$160,000. Funding for the project would come from the Department's Renewal and Replacement Account. In the CIP, the cost estimate was \$186,000. The lower Engineer's Estimate is based on the final design, which was not available at the time the CIP was formulated.

EXECUTIVE OFFICER RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 97-2544.

S:\SHARE\DEPT\ARCHIVE\HILLMAN\972544.STF