



CITY OF
PORTLAND, OREGON

BUREAU OF ENVIRONMENTAL SERVICES

Dick Bogle, Commissioner
John Lang, Administrator
1120 S.W. 5th Ave.
Portland, Oregon 97204-1972
(503) 796-7169

April 9, 1986

EXHIBIT A

Ms. Molly J. Adolfson
100 West Harrison Street
Seattle, Washington 98119

Subject: Amended Specified Services for Phase II of the Airport Way Water Quality Study

Dear Ms. Adolfson:

In accordance with previous negotiations between Brown and Caldwell and the City of Portland, this letter when signed by a contracting official of your company constitutes an amendment to our existing Agreement for Services regarding the Airport Way Water Quality Study. Specifically, this amendment concerns the Phase II determination of mitigation measures. The description of the Amended Specified Services as previously agreed upon is attached and is considered part of this Amendment.

The total compensation to Brown and Caldwell for providing the Amended Specified Services for Phase II shall not exceed \$65,000.

Except for the Amended Specified Services and the total compensation, all terms of the existing Agreement for Services are still in effect.

Sincerely yours,

Dick Bogle
Commissioner of Public Works

for Brown and Caldwell

Date: _____

HTD:aeg
NE/3:Letters(AmendAgrmt)

EXHIBIT A

AMENDED SPECIFIED SERVICES
for
PHASE II

The probability of spills and/or leaks associated with various scenarios has been determined in Phase I. The following describes the Phase II work plan which involves the evaluation of potential mitigation measures.

Task 1. REVIEW POTENTIAL MITIGATION MEASURES

This task effort will involve review of all potentially applicable mitigation measures for Airport Way, other transportation facilities (existing and potential) and the existing and potential site developments within the project area. Both direct containment/treatment measures and indirect measures will be included. Spill/leak detection methods will also be reviewed. The types of measures evaluated will include, but not be limited to:

- spill containment facilities (i.e., installation of impermeable material between the potential contamination source and the ground water)
- surface runoff rerouting
- various double-walled storage tank designs
- emergency detention/storage systems
- automated spill/leak detection equipment
- dedicated ground water monitoring programs
- pumping of contaminated water followed by removal/treatment
- combination routing and storage systems
- passive/wetland treatment systems
- biological cleanup programs
- chemical deactivation, including activated carbon filtration
- transport and disposal programs for contaminated waste, including such options as temporary piping, trucking and/or treatment
- regulations for siting, design and construction of potential contaminant generators, including building design and land use regulations for specific industries
- prohibiting certain types of high risk contaminant generators
- emergency response procedures/programs, including an evaluation of the existing system
- others identified in the study process

Potential mitigation measures will be determined through interviews and research. The Engineer will contact the representative of the National Water Well Association, Leaking Underground Storage Program (formerly L.U.S.T., now R.U.S.T.); the Environmental Protection Agency, Hazardous Waste division; tank manufacturers; and industry representatives, and will review technical journals for the state-of-the-art techniques. Each measure will be presented in a table or matrix which summarizes potential costs (capital, operation, maintenance, public, private and regulatory), effectiveness of contaminant remo-

val, reliability, special problems and/or special benefits, and maintenance requirements.

Products

- Library of information sources for City retention
- Table/matrix evaluating each measure relative to
 - costs (capital and maintenance)
 - effectiveness of contaminant removal
 - reliability
 - special problems/benefits
 - maintenance requirements

Task 2. ALTERNATIVE DEVELOPMENT

The broad array of potential mitigation measures will be narrowed through the use of a preliminary screening process to a list of alternatives potentially feasible in the study area. These alternatives will be researched in detail and be comprised of combinations of direct and indirect mitigation measures. Four or five of the alternatives will be developed for each of the major types of sources, which are:

- The Airport Way street project
- Other transportation facilities within the project area
- The existing and potential site developments within the project area

Feasibility matrices will then be prepared which summarize the alternatives.

Products

- Feasibility matrices summarizing four to five alternatives for each type of source.
- A preliminary review draft of the text which describes Tasks 1 and 2.

Task 3. FEASIBILITY EVALUATION

The alternatives from Task 2 will be evaluated for implementation feasibility. Evaluation criteria will include: cost of implementation versus potential environmental/health costs (i.e., damage avoidance); potential removal effectiveness; maintenance requirements; long-term applicability; and potential impacts. The potential cost of the mitigation measures will be discussed relative to damage costs resulting from a spill, including actual cleanup costs as well as potential health risk costs. Mitigation measures will be discussed relative to reducing the probability of risk, as determined by the revised risk model (see Task 4). The matrices developed in Task 2 will be expanded to reflect the Task 3 feasibility evaluation.

A general evaluation will also be made of the potential effectiveness of installing the most feasible mitigation measures in the existing industrial, commercial and public facilities within or significantly impacting the project area. The intent is to ensure that the Reassessment of Risk (Task 5) can include for comparison purposes the effect of retrofitting existing developments with water quality protection measures versus not retrofitting them.

Products

- Expanded versions of the Task 2 matrices, which reflect the feasibility evaluation.

Task 4. RISK MODEL REVISION

The Phase I Risk Model will be revised as follows:

1. A shallow well in the eastern portion of the project area will be included in the model and one well will be eliminated. The positions of deep wells that are not eliminated may be changed so that all physical wells in the project area will continue to be represented. The total number of wells, deep and shallow, will not exceed 17. The locations of the wells will be established through discussions involving the Engineer, the Water Bureau and the City Project Manager. This revision is intended to facilitate a better understanding of the water quality implications in the eastern portion of the study area.
2. The model output will be expanded to include tabulations that disclose: (a) the number of water quality standard violations at each well that are attributable to each of the three hazardous material types, and (b) the number of water quality standard violations from each of the three Sources (Airport Way, Other Transportation Facilities, and Site Developments) that are attributable to each of the three hazardous material types.

Products

- A revised version of the Phase I Risk Model, including a copy of the new floppy disks for City use.

Task 5. EVALUATION OF MITIGATED RISK

The revised Phase I Risk Model will be run using the data generated in Phase I to establish the revised unmitigated baseline results. Each model run consists of one run of each of the six model components - Existing, 2005 Build, 2005 No Build; each With and Without Pumping of the Wells.

The revised Phase I Risk Model will also be run using input factors that reflect the Task 2 alternatives. Four alternatives will be developed in Task 2 for each of the three Sources, resulting in twelve model runs in addition to the unmitigated baseline. Each alternative will consist of one or more

direct and/or indirect mitigation measures. Since the combined effect of multiple mitigation measures is probably not additive, it may not be possible to apportion the total reduction in water quality standard violations to individual mitigation measures, when several mitigation measures are included in an alternative. When precise apportionment is impossible, estimates of the individual contributions will be made. The results from the mitigation measure runs will be summarized and compared to the unmitigated risks. Recommendations for implementation will be made, determined by potential risk reduction and accompanying favorable cost/benefit relationships. The costs used will have been developed in Tasks 1 and 2.

The results of the evaluation will be presented in a manner which illustrates both the impacts of each alternative and either the estimated or computer evaluated impacts of the individual mitigation measures which comprise the alternative. This is intended to provide the maximum flexibility in the formulation of an optimum mitigations program.

If any contaminant sources are proposed to be prohibited from the project area, the approximate percentage of industries affected which might potentially locate there will be presented. The type of industries will be described that potentially might have located in the project area, including the approximate extent this represents, either in terms of number of employees, amount of investment, acres of development, etc. that would be unrealized.

Products

- A summary of the reassessment of risk.

Task 6. REPORT PREPARATION

Twenty copies of a draft report series outlining the efforts and results of Phases I and II will be submitted to the City eight weeks after the Engineer receives and signs the letter amendment to the contract for the Phase II work. Following review, final copies of each will be delivered to the City within three weeks after the Engineer receives review comments from the City's Project Manager.

The draft and final report series will be as follows:

- The Main Report (Phases I and II) - (50 final copies)
- A six to 10 page Summary Report - (250 final copies)
- Technical Appendix(ces) - (six final copies) (one draft submittal)
- A draft-final Site Development Handbook, which can be a section of the Main Report, and which summarizes the mitigation measures for the private site developments, suitable for distributing to site designers/developers - (20 final copies)
- A reproducible original of the Main Report, the Summary Report and the Site Development Handbook.

Products

- 20 copies of each draft report in the series, not including the Technical Appendix (one draft copy only)
- 50 copies of the final Main Report
- 250 copies of the final Summary Report
- 6 copies of the final Technical Appendix
- 20 copies of the draft-final Site Development Handbook
- One reproducible original of the Main Report, Summary Report and Site Development Handbook.

Task 7. MANAGEMENT AND COMMUNICATION

- The Engineer will participate in the following:
- Status meetings with the Technical and Management Committee (TMC) at the beginning, 5-week and draft submittal points;
 - Two public/official presentation meetings (if needed);
 - A half-day training session on the use of the final risk and mitigation model;
 - Two review meetings between the draft and final report to discuss TMC comments.




PORTLAND
DEVELOPMENT
COMMISSION

Patrick L. LaCrosse
Executive Director

1120 SW Fifth Avenue
Portland, Oregon 97204
(503) 796-5300

Telex 705132 PORTDEV PTL US

MEMORANDUM

DATE: March 26, 1986
TO: John Lang
Bureau of Environmental Services
FROM: Patrick LaCrosse 
SUBJECT: Phase II - Water Quality Study - PDC Participation

The Portland Development Commission will provide funding in the amount of \$29,125 as its share of the Brown and Caldwell Phase II Water Quality Study of the Columbia South Shore area contingent upon approval by the Portland Development Commission.

Payment to the Bureau of Environmental Services will be from urban renewal tax increment funds to be authorized by the Commission pending approval of the Columbia South Shore Urban Renewal Plan by City Council and the availability of funds.

PLC:CEO:eb

ORDINANCE NO. 158378

An Ordinance authorizing the funding of Phase II of an existing contract with Brown and Caldwell, Consulting Engineers, a professional engineering corporation, to provide engineering and geohydrology services in connection with the investigation of mitigation measures to reduce the water quality risk associated with the Airport Way transportation arterial and related areas to the Bureau of Environmental Services (BES) for \$9,125.00, the Water Bureau (WB) for \$22,625.00, the Office of Transportation (POT) for \$4,125.00 and the Portland Development Commission (PDC) for \$29,125.00, for a total sum of \$65,000.00; authorizing the City to pay the PDC share with later repayment to the City by the PDC; authorizing the drawing and delivery of warrants; and declaring an emergency.

The City of Portland ordains:

Section 1. The Council finds:

1. The Phase II investigation by consulting engineering and geohydrology specialists is necessary to determine the mitigation measures which are to be used in the design of various projects to reduce the impact of the Airport Way transportation arterial and related areas on groundwater quality and other items as identified in the attached Amended Specified Services for Phase II, marked Exhibit "A".
2. The costs of this amendment should be shared by the City (Bureaus of Water, Environmental Services, and Transportation Planning and Finance) and the Portland Development Commission.
3. PDC has agreed to pay \$29,125.00 of the cost of this amendment, upon creation of an Urban Renewal District in Columbia South Shore.
4. To allow this project to proceed, the City must pay PDC's share, and be reimbursed by PDC upon formation of the District.

NOW, THEREFORE, the Council directs:

- a. The Commissioner of Public Works is hereby authorized to amend the existing contract with Brown and Caldwell, Consulting Engineers, to provide the Phase II services described in Section 1 for a total cost not to exceed \$65,000.00, said Phase II extension shall be in substantial accordance with the form of agreement attached to the original only of this Ordinance, marked Exhibit "A", and by reference made a part of this Ordinance.

ORDINANCE No.

- b. The Mayor and the Auditor hereby are authorized to draw and deliver warrants payable to Brown and Caldwell, consulting Engineers, when demand is presented, approved by the proper authorities, chargeable to the following City agencies according to the listed ratios:

1. Bureau of Environmental Services	\$32,666.67
BUC #14712003, Object Code 210	
2. Water Bureau	\$32,333.33
BUC #18620928, Project #0186	
Object Code 210	
Total	\$65,000.00

- c. The Portland Office of Transportation (159) will reimburse the Bureau of Environmental Services \$13,833.33 through an interagency agreement for their share of the Contract.
- d. Upon creation of an Urban Renewal District in the Columbia South Shore area, the Portland Development Commission shall reimburse the City for \$29,125.00 of the costs of this amendment according to the following:

Office of Transportation	\$ 9,708.33
Bureau of Environmental Services	\$ 9,708.34
Water Bureau	\$ 9,708.33

Section 2. The Council declares that an emergency exists because a delay in proceeding with Phase II of the contract may result in additional expense since delays in selecting mitigation measures could increase the cost of the preventive/remedial actions needed to protect water quality; therefore, the Ordinance shall be in force and effect from and after its passage by the Council.

Passed by the Council, **APR 9 1986**

Commissioner Bogle
H.T. Davis:aeg
April 2, 1986

Jewel Lansing
Auditor of the City of Portland
By

Edno Cewera Deputy

AirportWay:
Ord-PhaseII

Calendar No. SOB 677

ORDINANCE No. 158378

Title

THE COMMISSIONERS VOTED AS FOLLOWS:		
	Yeas	Nays
BOGLE	✓	
LINDBERG	✓	
SCHWAB	✓	
STRACHAN	✓	
CLARK	✓	

FOUR-FIFTHS CALENDAR	
BOGLE	
LINDBERG	
SCHWAB	
STRACHAN	
CLARK	

An Ordinance authorizing the funding of phase II of an existing contract with Brown and Caldwell, Consulting Engineers, a professional engineering corporation, to provide engineering and geohydrology services in connection with the investigation of mitigation measures to reduce the water quality risk associated with the Airport Way transportation arterial and related areas by the Bureau of Environmental Services for \$9,125.00, the Water Bureau for \$22,625.00, the Office of Transportation for \$4,125.00 and the Portland Development Commission (PDC) for \$21,125.00, for a total sum of \$65,000.00; authorizing the City to pay the PDC share with repayment by the PDC; authorizing the drawing and delivery of warrants; and declaring an emergency.

Filed APR 7 1986

JEWEL LANSING
Auditor of the CITY OF PORTLAND

By Devinus D/S/g
Deputy

INTRODUCED BY	
Commissioner Bogle	
NOTED BY THE COMMISSIONER	
Affairs	
Finance and Administration	
Safety	
Utilities	
Works <u>Rich Bogle</u>	
BUREAU APPROVAL	
Bureau	Environmental Services
Prepared By	Date
H.T. Davis	April 2, 1986
Budget Impact Review:	
<input type="checkbox"/> Completed <input checked="" type="checkbox"/> Not required	
Bureau Head: <u>John M. Long</u> Administrator	
CALENDAR	
Consent	Regular <input checked="" type="checkbox"/>
NOTED BY	
City Attorney	
City Auditor	
City Engineer	