

153060

AGREEMENT FOR ENGINEERING SERVICES

BUREAU OF MAINTENANCE
CITY OF PORTLAND

March 25, 1982

AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT, made and entered into this _____ day of _____, 1982 by and between R. A. Wright, Engineering, Inc. whose address is 1340 S.W. Bertha Blvd., Portland, OR 97219, hereinafter called the "Engineer", and the City of Portland, State of Oregon, hereinafter called the "City" covers certain professional engineering services in connection with the proposed City of Portland Construction Spoil Disposal Study, hereinafter called the "Project".

WITNESSETH THAT, in consideration of these premises and of the mutual covenants herein set forth, the City and the Engineer mutually agree as follows:

ARTICLE 1 - GENERAL CONDITIONS

1.1 Retainer

The City hereby retains the services of the Engineer in connection with the Project and the Engineer hereby agrees to provide the services described herein under the general directions and control of the City.

1.2 Services

The services to be provided by the Engineer as set forth in the Engineer's Services, the services to be provided by the City as set forth in the City Services and any such services changed, altered or added to, in accordance with this agreement are hereinafter called the "Work".

1.3 Project Management

The Project shall be supervised by a Project Manager designated by the City who will oversee the Project and coordinate project relations between the Engineer and the Technical Advisory Committee. The Technical Advisory Committee shall approve of all documents submitted by the Engineer and shall represent the Bureau of Maintenance and the Bureau of Water Works.

1.4 Drawings and Documents

All drawings and documents or copies thereof required for the Work shall be exchanged between the parties on a reciprocal basis, and those prepared by the Engineer for the City shall be the property of the City with no express or implied confidentiality and free of all claims by the Engineer of any nature and kind whatsoever.

1.5 Approval By Other Authorities

Where aspects of the Project are subject to the approval of an authority, department of government or agency, other than the City, such approval shall be obtained through the offices of the City and unless authorized by the City in writing, such approval shall not be obtained by direct contact from the Engineer with such other authority, department of government or agency.

1.6 Changes

The City may in writing and at any time before or after the execution of this Agreement or the commencement of the design of the Work delete, extend, increase, vary or otherwise alter the design of the Work forming the subject of this Agreement, and if such action by the City necessitates additional staff or work the Engineer shall be paid in accordance with Article 4, Payments for such additional staff employed directly thereon, together with any expenses and disbursements. Reduction of the total fixed amount of the contract for deletions or alterations of the Work will be as negotiated by the City and the Engineer at the time the deletions or alterations are made.

1.7 Termination

This Agreement may be terminated by the City upon giving notice in writing to the Engineer at his last known post office address. Upon such termination, the Engineer shall cause to be delivered to the City all data and information obtained to date with the understanding that all such material becomes the property of the City. The Engineer shall be paid for any services completed and any services partially completed in accordance with Article 4, Payments.

1.8 Disputes

Arbitration of all questions in dispute under this Agreement shall be at the choice of either party and shall be in accordance with the rules of the American Arbitration Association. This Agreement shall be specifically enforceable under the prevailing arbitration law and judgment upon the award rendered may be entered in the court of the forum, state or federal, having jurisdiction. The decision of the arbitrators shall be a condition precedent to the right of any legal action.

1.9 Notice of Meetings

Except in cases of emergency, each party shall give the other at least 48 hours notice of meetings, appointments, and other commitments found to be necessary for the proper conduct of work.

ARTICLE 2 - ENGINEERING SERVICES

2.1 General

The project is a study to develop a detailed analysis and recommendation to the City of alternative strategies deemed most efficient, economical and acceptable in the disposal of construction spoils material. The plan is to locate an alternate dumping site or disposal method in lieu of the current practice of dumping at the Willamette, Slavin and Durham Pit sites.

The services to be provided by the Engineer in the execution of the project are to assess the City's current situation in construction spoils generated, analyze potential alternatives to dump site acquisition, analyze dump site acquisition, research and compile all legal requirements, complete an economic analysis of the alternatives and make a final report summarizing the alternatives and making recommendations to the City. More specifically, these services are associated with the tasks identified below and in the attached PROPOSAL FOR CONSTRUCTION SPOIL DISPOSAL STUDY, CITY OF PORTLAND, OR, R. A. WRIGHT ENGINEERING, INC. hereby made a part of this contract.

2.2 Scope of Work

TASK 1. PROJECT SCHEDULE

- a. Prepare a time scaled critical path network (CPM) of project activities.

TASK 2. DATA COLLECTION

- a. Determine quantities of City generated construction spoils.
- b. Determine construction spoils composition and physical characteristics.
- c. Determine flow rate of construction spoils quantities to existing sites.
- d. Determine fixed and variable transportation costs of the current City maintenance operations.
- e. Review municipal construction programs and annexation plans in order to estimate future City construction spoils quantities.

- f. Estimate construction spoils quantities, type, and distribution of solid wastes for a 20-year period.
- g. Prepare technical memorandum #1.

TASK 3. ALTERNATIVES ANALYSIS

- a. Identify alternatives and constraints for disposing of construction spoils other than in City owned land disposal sites.
- b. Investigate the opportunities for reuse of wood waste, asphaltic concrete, Portland Cement concrete, and the remaining inert material.
- c. Investigate a maximum of four transportations modes possibly including the following for hauling construction spoils:
 - Direct haul to disposal site.
 - Transfer station(s).
 - Barge transfer.
- d. Make capital and operating cost estimates for alternative facilities and transportation modes for tasks a., b. and c.
- e. Determine projected haul costs.
- f. Evaluate summary environmental and land use impacts for the following alternatives:
 - Reuse facilities.
 - Transfer facilities.
 - Barge facilities.
 - Privately owned disposal facilities.
 - City owned disposal facilities.
- g. Evaluate handling and disposal alternatives by using an evaluation matrix.
- h. Prepare technical memorandum #2.

TASK 4. LANDFILL SITE ANALYSIS

- a. Identify and describe potential disposal sites that could be owned and developed by the City.
- b. Identify and describe potential disposal sites that are privately owned and could be developed by the City.
- c. Develop site evaluation criteria.
- d. Determine haul costs, operating and costs for combinations of disposal sites.

- e. Evaluate summary environmental and land use impacts for each site.
- f. Prepare a site evaluation matrix and rank potential sites.
- g. At least three specific site strategies with minimum lives of (10) ten years identified along with any available alternatives.
- h. Prepare technical memorandum #3.

TASK 5. LEGAL REQUIREMENTS

- a. Identify and describe the legal and regulatory requirements which affect each alternative.
- b. Prepare technical memorandum #4.

TASK 6. OPERATING PLANS

- a. Determine feasible operation plans (minimum three to maximum five).
- b. Determine optimum number of sites for each plan.
- c. The minimum acceptable life of any operation plan is ten (10) years.
- d. Prepare an economic analysis of each alternative plan including capital, operating and annual cost comparisons.
- e. Identify impact of costs on the City department budgets.
- f. Prepare technical memorandum #5.

TASK 7. FINAL REPORT

- a. Prepare final report summarizing the alternatives identified and making recommendations to the City.

TASK 8. PROJECT MEETINGS

- a. Attend project meetings up to a maximum of 40 man hours.
- b. A project meeting shall be either a formal presentation of information to the City by the Engineer or when the Engineer acts in behalf of the City at formal pre-scheduled meetings to the public or other government bodies.

2.3 Staff and Methods

The Engineer shall use the best available methods in performing the Work and shall employ only skilled and competent staff thereon who will be under the supervision of a senior member of the Engineer's Staff. If substitution of key personnel is proposed during the project, this substitution must be made with personnel of equal or better qualifications and approved by the City.

2.4 Reports

Upon completion of each portion of the study as outlined herein a technical memorandum shall be submitted and upon completion of the project a final report shall be submitted. Prior to submission of each technical memorandum or the final report a rough draft of each shall be submitted for review and approval by the City. Each of the above final memorandum and report shall be a separately bound document. The Engineer shall provide two (2) copies of all rough drafts, six (6) copies of each technical memorandum and twenty-five (25) copies of the final report in accordance with the time requirement of Section 2.7.

2.5 Document Endorsement

All documents furnished by the Engineer pursuant to this agreement will be endorsed by him and will show his professional seal where such is required by law.

2.6 Progress Report

The Engineer shall provide the City with a monthly written report showing the portion of the Work completed in the preceding month.

2.7 Time

The Engineer shall perform the Work expeditiously to meet the requirements of the City and shall complete any portion or portions of the Work in such order as the City shall have the right to take possession of and use any completed or partially completed portions of the Work notwithstanding any provisions expressed or implied to the contrary. The Engineer understands that the City desires the study to be completed within thirty-one (31) weeks after the date of notice to proceed. The time limit for completion may be extended provided it is mutually agreeable between the City and the Engineer and all work to date has progressed in a satisfactory manner.

2.8 Final Report Errors

Should at any time within twelve (12) months of submission of final reports to the City by the Engineer, any work under the control of the Engineer or produced by the Engineer in terms of data collected or analysis performed be found to be in error, the Engineer will produce at no cost to the City, any action necessary to correct the error. The corrective action will be done even though final payment has been made and in an expeditious manner so as to cause only a minimum of delay to the City.

2.9 Nondiscrimination

The Engineer will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry.

2.10 Insurance

The Engineer will secure and maintain such insurance as will protect him from claims under the Workmen's Compensation Acts and from claims for bodily injury, death or property damage which may arise from the performance of his services under this agreement. Certificate naming the City as additional named insured to be filed with the Auditor in such form and for such amount as is approved by the City Attorney.

ARTICLE 3 - CITY SERVICES

3.1 General

Subject to information and services to be provided by the Engineer, the City, through the Project Manager, will provide access to reference material and facilities required for review by the Engineer and inter-agency coordination. Technical Advisory Committee will guide and review the consultant's work,

ARTICLE 4 - PAYMENT

4.1 Total Charges

The City will make payment for the work in accordance with the provisions of this Article to the extent that the total charges to the City and total payment made to the Engineer for the completion of all activities identified in this agreement shall be a fixed amount of \$45,600 except as provided elsewhere in this contract.

4.2 Invoice

The Engineer shall submit a monthly invoice to the City for all charges for that part of the Work, completed during the immediately preceding month.

4.3 Fees Calculated on a Time Basis

The City shall pay the Engineer a fixed fee, calculated on a percentage basis, for that part of the Work accomplished by the Engineer's Staff. Any fees required to be calculated on a time basis shall be calculated as detailed in the attached staff list.

4.4 Disbursements

The City shall not reimburse the Engineer for any expenses incurred in the purchase of equipment, materials or other miscellaneous expenses. Payment for such miscellaneous items shall be included in the fixed amount of the overall contract payable to the Engineer.

4.5 Records and Audit

- (a) The Engineer shall keep a detailed record of the hours worked by, and salaries paid to his staff employed on the Work.
- (b) The City may inspect and audit the books, payrolls, accounts and records of the Engineer at any time with respect to any item which the City is required to pay on a time scale or disbursement basis as a result of this Agreement.

4.6 Termination of Project

Should the project be terminated at any time after the Engineer has performed any part of the services provided for in ARTICLE 2, and prior to the completion of such services, the City shall reimburse the Engineer for the costs incurred up to the time he is notified in writing of such termination. Reimbursement shall be in accordance with Sections 4.3 and 4.4 of this agreement.

4.7 Changes

Should the City require changes in any of the work plan after it has been approved by the City, the City will pay the Engineer for such changes on the basis of the Engineer's attached staff list. It is understood that "changes" as used in this paragraph shall in no way relieve the Engineer of his responsibility to prepare a complete final report.

4.8 Disbursement of Funds

Payment due the Engineer for services rendered in accordance with this agreement will be made within 30 days after approval by all necessary bureaus, committees and bodies within the City for the invoiced amount up to a maximum payment for each task as outlined in the following:

<u>TASK</u>	<u>MAXIMUM PERCENT OF CONTRACT AMOUNT TO BE PAID PRIOR TO COMPLETION OF EACH TASK</u> (%)	<u>TOTAL PAYMENT FOR COMPLETED TASK(S), MAXIMUM</u> (\$)
1 - Project Schedule (CPM	10	4,560
2 - Data Collection	20	9,120
3 - Alternative Analysis	40	18,240
4 - Landfill Site Analysis	60	27,360
5 - Legal Requirements	75	34,200
6 - Operating Plans	85	38,760
7 - Final Report Acceptance	100	45,600

Tasks must be completed in the order indicated on the above schedule. Payment in excess of 85% of the contract amount (\$38,760) will not be made until the project has been completed by the Engineer and accepted by the City.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement this _____ day of _____, 1982.

City of Portland, Oregon

R. A. Wright Engineering
1340 S.W. Bertha Blvd.
Portland, OR 97219

By: _____
Commissioner of Public Works

By: _____

Auditor

APPROVED AS TO FORM
Christopher P. [Signature]
CITY ATTORNEY

-CONSULTANT'S UNIT RATES-

<u>NAME</u>	<u>RATE (\$/HR.)</u>
D. Gisvold, Attorney	\$80.00
C. Kemper, Registered Engineer	55.40
R. Sweet, Registered Engineer, Geologist	55.00
R. Wright, Registered Engineer	49.25
H. Reitmeier, Registered Engineer	47.25
D. Cordell, Registered Engineer, Geologist	40.00
R. Keech, Registered Engineer	35.00
J. Waddill, Technician	27.30
G. William, Engineer	25.90
D. Blair, Surveyor	25.90
S. Adams, Secretary	21.40
J. Harrison, Technician	20.70



Construction Spoil Disposal Study

PROPOSAL

R.A.Wright Engineering, Inc.

1

R.A.Wright
engineering
consulting engineers

153060

1308 SW. Bertha Blvd
Portland, Oregon 97219
503/246-4293

February 5, 1982

Mr. Ernest L. Yuzon
Bureau of Street & Structural Engineering
City of Portland
621 S. W. Alder
Portland, Oregon 97205

Dear Mr. Yuzon:

Construction Spoil Disposal Study Proposal

R. A. WRIGHT ENGINEERING, INC., is pleased to submit this proposal in response to your request. The firm's previous experience makes us well qualified to perform the Construction Spoil Disposal Study. Over the last three years we have performed over 21 solid waste management related projects for both municipal and private clients. This work has included:

- Developing solid waste disposal strategies
- Performing disposal site selection
- Performing transportation haul analysis
- Analyzing economics of disposal facilities
- Preparing environmental impact analysis
- Performing design of disposal facilities.

We propose a project team of professionals with expertise in various aspects of Solid Waste Management.

Chuck Kemper will be assigned Project Manager for this study and will be assisted by:

- Hal Reitmeier, Project Design Support,
R. A. WRIGHT ENGINEERING, INC., Portland, Oregon.
- Bob Keech, Transportation and Economic Analysis,
R. A. WRIGHT ENGINEERING, INC., Portland, Oregon.
- Dean Gisvold, Legal Requirements,
McEWEN, NEWMAN, HANNA & GISVOLD, Portland, Oregon.
- Randy Sweet, Environmental Considerations,
SWEET, EDWARDS AND ASSOCIATES, Kelso, Washington.

These people have been involved with the majority of solid waste facilities planned and designed in the State of Oregon in

R.A.Wright Engineering

Mr. Ernest Yuzon

February 5, 1982
Page 2

the last ten years. These projects have included the following types of facilities: sludge lagoons, industrial disposal sites, demolition landfills, transfer stations, and resource recovery facilities.

R. A. WRIGHT ENGINEERING, INC.; over the past several years has developed a familiarity with the technical and political problems of demolition and construction solid waste disposal in the Portland area. There is a need throughout the region for inert fill material to reclaim valuable land, reuse portions of the waste materials, or as intermediate landfill cover material. We propose to evaluate all of these options and more before the project is completed.

We propose to complete this work in 25 weeks after project initiation for estimated fee of \$40,550.

In order to evaluate our proposal, the following information is enclosed:

- Project approach
- Time schedule
- Fee estimate
- Personnel assignments
- Background of consultants
- Project team resumes
- Related experience

Thank you for the opportunity to present this proposal. We look forward to working with you and your staff.

Sincerely,



Charles C. Kemper, P.E.

CCK:rml
Enclosure



Construction Spoil Disposal Study

PROPOSAL

**R.A.Wright Engineering, Inc.
February 5, 1982**

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PROJECT APPROACH

PROJECT APPROACH

GENERAL

This proposal is based on the information presented in the Request for Proposal dated January 13, 1982, and discussion with several City staff. The City of Portland Bureau of Maintenance (BOM), and Bureau of Water Works (BWV) is seeking professional services to study the alternatives available and recommendations for a long range disposal solution to the construction waste materials problem. Since existing disposal options are becoming limited, it is necessary this work be completed as soon as possible and that all alternatives be explored to the same depth.

R. A. WRIGHT ENGINEERING, INC., proposes a project approach that will achieve four major objectives:

1. Document disposal alternatives available to the City.
2. Identify legal, regulatory and institutional constraints.
3. Provide cost comparisons for each alternative.
4. Provide final recommendations which the City of Portland can use for developing policy.

In past projects, R. A. WRIGHT ENGINEERING, INC., has been successful in assisting municipal staff with coordination and recommendations that are acceptable to the elected officials. We view our role as providing technical solutions and assisting in the implementation of the recommendations. The following is the Project Approach we propose for this project:

TASK 1. CPM SCHEDULE OF CONSULTANT ACTIVITIES

A critical path method (CPM) network will be prepared before the project gets underway. All project activities will be identified. A maximum and minimum time schedule will be estimated for each activity. Then the network logic will be prepared based on input from each member of the project team. We would propose using a time scaled CPM network because it is easier to understand. After review by City personnel, a Mylar and six copies will be submitted to the City's Project Director.

TASK 2. CONSTRUCTION SPOILS QUANTITIES & COMPOSITION

The City of Portland Bureaus generate both organic and inorganic (inert) solid wastes. Typically, the majority of solid waste quantities handled by the Bureau of Maintenance (BOM) and the Bureau of Water Works (BWV), consist of dirt, rock, concrete, and asphaltic concrete materials. This material results from construction or reconstruction of roads, streets, sidewalks,

curbs, etc. Solid waste quantities can be estimated from in-place volume, truck volume, and by estimating loose and compacted densities. The following are specific work tasks:

- 2.1 Information from BOM and BWV will be gathered and reviewed to determine types and quantities of waste. The generation rate of spoils materials will be estimated.
- 2.2 Private landfill records will be reviewed and operating personnel will be interviewed.
- 2.3 Existing disposal sites will be inspected.
- 2.4 Municipal construction programs will be reviewed to estimate future solid waste quantities. Annexation plans will be reviewed for the same purpose.
- 2.5 The quantity and type of solid wastes will be projected for 20 years. Both organic and inert categories will be identified.
- 2.6 Technical Memo #1 which identifies projected volumes and geographical distribution will be prepared.

TASK 3. ALTERNATIVES ANALYSIS

The alternatives that will be analyzed will include, but not be limited to:

- Recycling asphalt concrete
- Transfer Stations (two locations)
- Barge transfer
- Reclamation of private lands
- Reuse as intermediate landfill cover.

A transportation computer model will be modified to analyze each alternative as a function of haul cost savings to the city. Capital and operating costs will be estimated along with current haul costs. The following are specific work tasks:

- 3.1 All potential alternatives will be identified and documented for possible limitations. Current operations will be reviewed and unit haul costs identified. Market opportunities for materials reuse will be investigated.
- 3.2 Cost estimates (capital and operating) will be made for various alternative facilities and transportation modes.
- 3.3 The transportation model will be applied for all potential alternatives. The results of this work will produce projected haul cost savings.

- 3.4 Environmental impacts of each alternative will be evaluated and identified.
- 3.5 An evaluation matrix will be prepared for possible alternatives.
- 3.6 Alternatives to landfill disposal at City owned sites will be evaluated and obvious high risk and high cost alternatives will be eliminated.
- 3.7 Technical Memo #2 describing the analytical process and results will be prepared.

TASK 4. LANDFILL SITE ACQUISITION ANALYSIS

This task will identify the possible sites in the Portland Metropolitan area that would be available for ownership and use by the City of Portland for disposal of construction spoils. The transportation model will be used to estimate haul cost savings for various site combinations. The sites will be evaluated by using the following criteria:

- Public acceptance
- Transportation routes
- Land use
- Site screening
- Compliance with local regulations
- Groundwater contamination
- Capability for long term site
- Cost

The following are specific work tasks:

- 4.1 Determine possible sites that could be owned and developed by City.
- 4.2 Develop site evaluation criteria and prepare evaluation matrix.
- 4.3 Apply the transportation computer model to these sites and determine haul cost savings for various combinations of sites.
- 4.4 Evaluate environmental and land use impacts for each site.
- 4.5 Determine optimum number of sites to be open at any one time.
- 4.6 Prepare Technical Memo #3 which would describe the analytical process used and the results obtained.

TASK 5. LEGAL REQUIREMENTS

The legal and regulatory requirements which affect each alternative will be identified and described. Local governments that could affect this project include Metro, DEQ, City of Portland, Washington County, and Multnomah County. The results of Tasks 3 and 4 will be reviewed as part of this work. Siting issues including zoning and conditional use requirements will also be described.

Technical Memo #4 will be prepared describing the regulatory and legal impacts, procedures, and potential problem areas.

TASK 6. COST ANALYSIS

Complete economic analysis of each possible alternative will be prepared. This will include estimates of capital and operating costs, land costs, equipment depreciation, fees, annual costs, and projected unit costs. The results of Task 3 will be compared with those of Task 4. Consideration will be given to recovered materials revenues, reclaimed land value, haul costs, and their impact on annual City department budgets.

Technical Memo #5 will be prepared which summarizes the analysis and describes the data generated and results of this task.

TASK 7. FINAL REPORT

A final report for this study will be prepared. This bound report will contain a description of all alternatives considered, the results of evaluating the alternatives, impacts of each alternative, costs and economic evaluation of the alternatives, and the recommended system. The report will also include a summary of technical and operating considerations for each alternative investigated. An executive summary will be produced either separately or combined with the final report as required by the City. Twenty-five final copies of the bound report will be submitted after draft comments from City staff are incorporated.

TASK 8. PROJECT MANAGEMENT

This work will include internal and external coordination and project resource management to assure budget control and flow of information to the City. Project meetings will be included in this task but will be limited to ten. We propose that additional meetings be billed separately.

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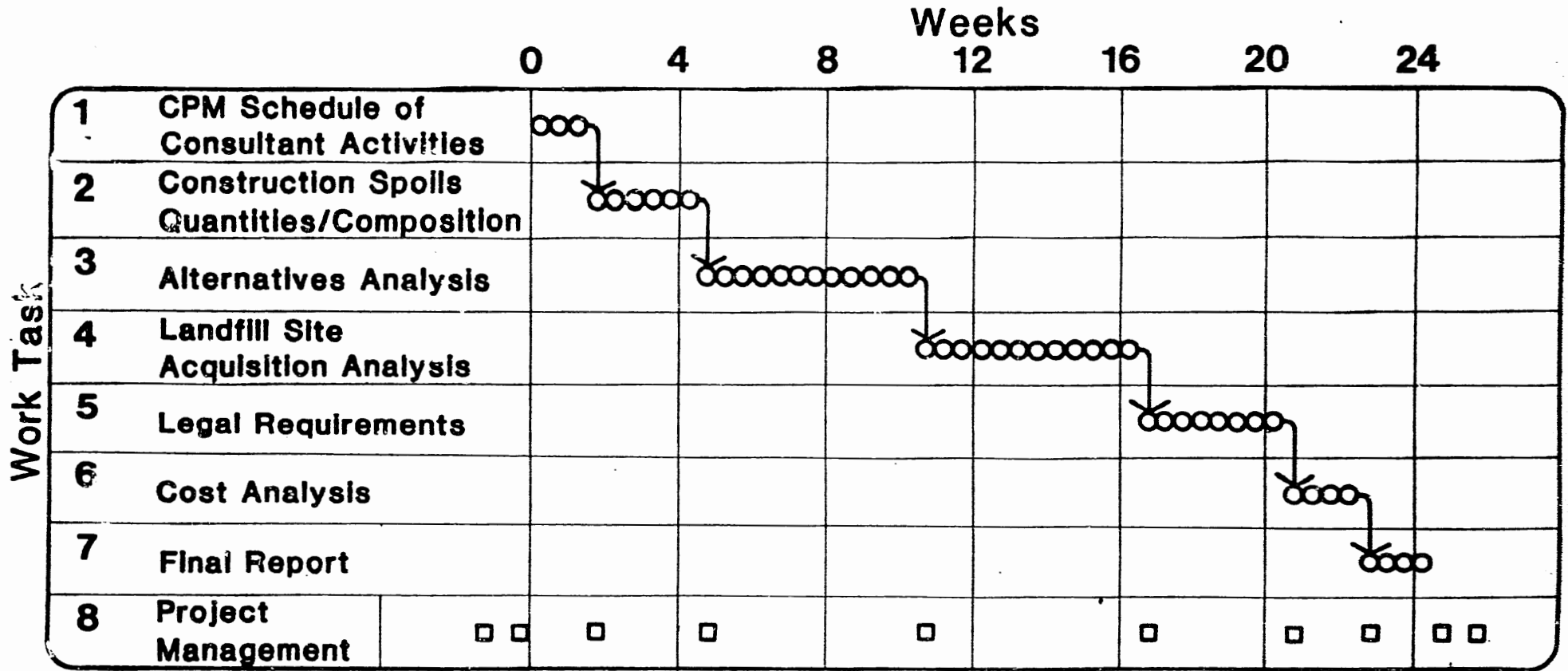
TIME SCHEDULE

TIME SCHEDULE

The schedule presented on the following figure shows the estimated time period for completing each of the major work tasks. This schedule recognizes the desirability of accomplishing this study in a timely fashion. It is estimated that 25 weeks will be needed to complete the project. This estimate is based on minimal time delays between major work tasks.

We have assumed that major project review meetings will take place after each task is completed and technical memorandums are completed. Our office is situated in Portland, and close enough for efficient transfer of information.

The project schedule shows 12 weeks is needed to complete Tasks 3 and 4, the major technical work in this project. If selected we will develop and maintain the Critical Path Method (CPM) network described in Task 1 as a method of project control.



□ indicates Meeting

PROJECT TIME SCHEDULE

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FEE ESTIMATE

FEE ESTIMATE

The fee estimate for professional services is \$40,550. The following table shows a breakdown of the estimated fee by project team hours and cost.

BREAKDOWN OF FEE ESTIMATE

PROJECT WORK TASKS	Chuck Kemper		Hal Reitmeier		Bob Keech		Dean Gisvold		Randy Sweet		Total	
	M-H	\$	M-H	\$	M-H	\$	M-H	\$	M-H	\$	M-H	\$
1.0 CPM Schedule Support Expenses	32	1,600									40	1,850
	8	200										
		50										
2.0 Construction Spoils Quantity & Composition Support Expenses	72	3,600	4	180	4	140					92	4,420
	12	300										
		200										
3.0 Alternatives Analysis Quantity & Composition	72	3,600	48	2,160	64	2,240			16	600	216	9,500
	16	400										
		500										
4.0 Landfill Site Acquisition Analysis Support Expenses	88	4,400	24	1,080	40	1,400			16	600	200	8,780
	32	800										
		500										
5.0 Legal Requirements Support Expenses							110	8,250			110	8,250
6.0 Cost Analysis Support Expenses	32	1,600	16	750	16	600					80	3,750
	16	400										
		400										
7.0 Final Report Support Expenses	40	2,000			8	300					72	3,000
	24	600										
		100										
8.0 Project Management Support Expenses	20	1,000									20	1,000
SUB TOTAL	356	17,800	92	4,140	132	4,680	110	8,250	32	1,200	830	40,550
Support	108	2,700										
Expenses		1,750										

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**PERSONNEL
ASSIGNMENTS**

PERSONNEL ASSIGNMENTS

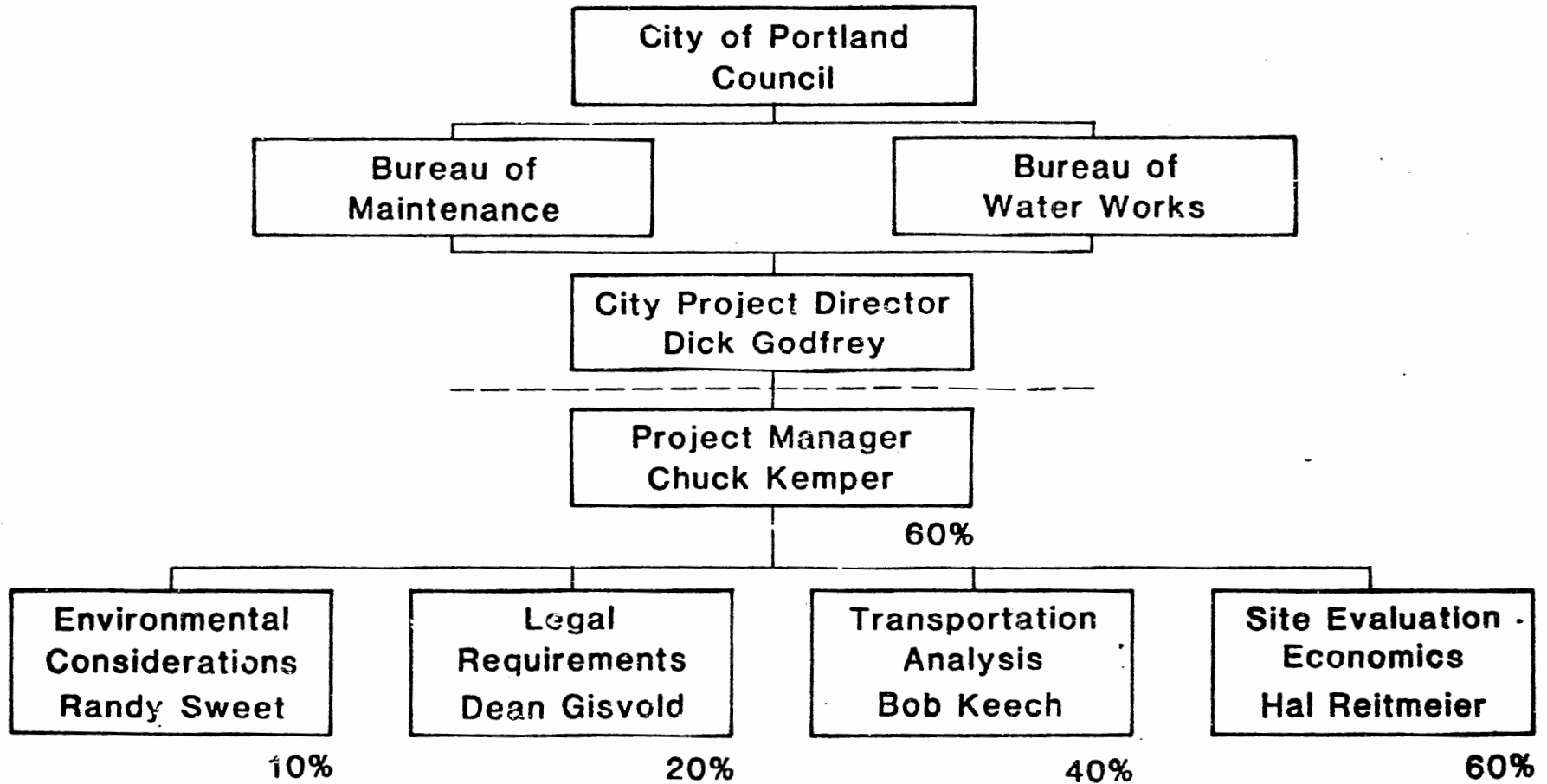
R. A. WRIGHT ENGINEERING, INC., proposed project organization chart and personnel assignment chart are shown in the following figures. We have proposed using highly trained people for this important project. They are:

- Chuck Kemper, Project Manager, R. A. WRIGHT ENGINEERING, INC., Portland, Oregon. - Civil Engineer, 22 years experience with 10 years experience in all phases of solid waste management. Previously Director of Metropolitan Service District (MSD) in Portland.
- Hal Reitmeier, Site Evaluation, R. A. WRIGHT ENGINEERING, INC., Civil Engineer, 13 years experience in design and construction of civil engineering projects.
- Bob Keech, Transportation Modelling, R. A. WRIGHT ENGINEERING, INC., Civil Engineer, nine years experience in transportation engineering. Most recently City of Beaverton Traffic Engineer.
- Dean Gisvold, Legal Requirements, McEWEN, NEWMAN, HANNA, AND GISVOLD, Portland, Oregon. - Attorney, 10 years experience in legal and land use aspects of solid waste management.
- Randy Sweet, Environmental Considerations, SWEET, EDWARDS AND ASSOCIATES, KELSO, WASHINGTON. - Engineering Geologist, 9 years experience in siting and hydrology of landfills.

The personnel assigned to this project will spend 60 to 80 percent of their time during periods when assigned tasks are underway. Each work task will have an assigned lead work performer responsible for the successful completion of the task.

The Project Manager will be Chuck Kemper. He will be the responsible person that will coordinate with City of Portland staff and project work performers. Chuck has spent the majority of his career managing resources and coordinating with diverse technical and political groups. As the director of MSD between 1972 and 1979 he acted as the senior staff person communicating between the Board of Directors and working staff. He was also responsible for the general administration of the agency. He has made many presentations to elected officials in this role and more recently as a consulting engineer.

The Appendix 1 contains resumes of key personnel.



PROJECT ORGANIZATION

Construction Spills Disposal Study PROJECT TEAM ASSIGNMENTS		Chuck Kemper	Hal Reitmeler	Bob Keech	Dean Glsvold	Randy Sweet
Work Task						
1	Schedule of Consultant Activities	L	S			
2	Assess Annual Quantities and Composition	L				
3	Alternatives Analysis	S	L	S		S
4	Landfill Site Acquisition Analysis	S	L	S		S
5	Legal Requirements	L				
6	Cost Analysis		L	S		
7	Final Report	L				
8	Project Management	L	S	S	S	S

L Lead Work Task Performer
S Support Performer

R.A.Wright
engineering
consulting engineers

153060

**BACKGROUND OF
CONSULTANTS**

BACKGROUND OF CONSULTANTS

The Consulting Firms which will participate in this project include:

- R. A. WRIGHT ENGINEERING, INC.,
Portland, Oregon
- McEWEN, NEWMAN, HANNA & GISVOLD
Portland, Oregon
- SWEET, EDWARDS AND ASSOCIATES
Kelso, Washington

The following is a description of the consultant firms background.

R. A. WRIGHT ENGINEERING, INC.

A consulting civil engineering firm providing engineering services associated with municipal utilities and land improvements. The firm is ten years old and employs ten people. The type of professional services provided are design and construction management for:

- Solid Waste Transfer and Disposal Facilities
- Sewer Collection and Disposal
- Water Treatment and Distribution
- Storm Drainage Channeling and Retention
- Streets and Roads

Support services include: Boundary and topographic surveying, computer analysis, drafting, and administrative.

R. A. WRIGHT ENGINEERING, INC., has performed solid waste engineering services for many clients in the last three years. The following are a partial list of projects:

<u>PROJECT</u>	<u>CLIENT</u>	<u>CONTACT</u>
Moolach Creek Landfill Site Selection & Preliminary Design	Lincoln County, Oregon	Gail Stater Solid Waste Coordinator (503) 265-6611
Troutdale Demolition Landfill Design & Development	City of Troutdale, Oregon	Scott Pemble (503) 665-5175
Landfill Capacity Analysis	Metro	Merle Irvine Solid Waste Director (503) 221-1646
Hillsboro Landfill Closure Plan	Hillsboro Landfill, Inc.	Don LaVelle (503) 635-5344
I-5 Sanitary Landfill Preliminary Design	Brown's Island Landfill, Inc.	Bruce Bailey General Manager (503) 363-8890
Waybo/Roselawn Landfill Design & Development	Pacific Rock Products, Inc.	Fred Zuber (503) 657-1355
Industrial Sludge Landfill Methane Study	Boise-Cascade Vancouver, WA.	Fred Webber Environmental Engineer (206) 693-2567
Killingsworth Disposal Landfill Design & Development	Killingsworth Disposal/ Western Pacific Leasing	Gary Newbore Manager (503) 285-9111
LaVelle Landfill Gas Control System & Closure Plan	H. G. LaVelle, Inc. Portland, Oregon	Harold LaVelle (503) 252-3302
English Pit Landfill Feasibility	Peter Kiewit & Sons Vancouver, WA	Ron Legg (206) 285-4687

SWEET, EDWARDS AND ASSOCIATES, INC.

SWEET, EDWARDS AND ASSOCIATES, INC., is a firm that specializes in geology as it relates to groundwater quality. The firm's work involves geological problems related to waste disposal sites and associated environmental impacts. These includes geologists, hydrogeologists, engineering geologists, and soil specialists. The firm is seven years old and employs nine people. The following is a partial list of related projects.

<u>PROJECT</u>	<u>CLIENT</u>	<u>CONTACT</u>
Industrial Waste Landfill Closure	Kaiser Aluminum Spokane, WA	Lonnie Roe (509) 924-1500
Newberg Landfill Expansion Geotechnical Feasibility	Angus MacFee Newberg, Oregon	Angus MacFee (503) 538-9150
Happy Camp Wood Waste Site Hydrogeology	Southwest Forest Products Happy Camp, CA	Gary Grimes (503) 776-6010
Roche Road Demolition Site Geotechnical	Valley Landfill Linn County, Oregon	Bill Webber (503) 757-9067
Brown's Island Landfill Expansion Geotechnical Study	Brown's Island Landfill, Inc. Salem, Oregon	Bruce Bailey General Manager (503) 363-8890
Clarifier Sludge Site Geotechnical Evaluation	Boise-Cascade St. Helens, OR	Al Mick (503) 224-7750
Clarifier Liquer Infiltration Basins- Geotechnical Evaluation & Groundwater Monitoring	Western Kraft Albany, OR	Ed Kirkpatrick (503) 926-2281
Wood Waste Site Groundwater Monitoring	Weyerhaeuser Co. Cottage Grove, OR	Dan Morgan (503) 942-3301

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11/10/86
11/10/86

MCEWEN, NEWMAN, HANNA & GISVOLD.

The firm of MCEWEN, NEWMAN, HANNA & GISVOLD, first opened its doors in the fall of 1886 when H. M. Cake joined his brother, W. M. Cake, to practice law as Cake & Cake. From the beginning, the firm has engaged in a business-oriented practice with special emphasis on legal matters relating to real property, insurance, savings and loans, probate and tax. During the last 15 years, the firm has also been involved in land use siting and planning matters, environmental cases and municipal and administrative law issues relating to the Metropolitan Service District. The firm presently has 7 partners, 7 associates, one law clerk, two paralegals and a support staff. Dean Gisvold, partner, and Don Carter, associate, will be assigned to this project.

153060

153060

APPENDIX 1
RESUMES

RESUME

CHARLES C. KEMPER, P.E.

EDUCATION

- 1967 SEATTLE UNIVERSITY, Seattle, Washington, MBA program
- 1959 OREGON STATE UNIVERSITY, Corvallis, Oregon, B.S. Civil Engineering

ORGANIZATIONS & APPOINTMENTS

- Governmental Refuse Collection and Disposal Association of Oregon, Charter Member & Past Director
- Oregon Sanitary Service Institute, Associate Member
- Consulting Engineers Council, Corporate Member
- Metropolitan Citizens League, Director
- Metropolitan Citizens League, Legislative and Governmental Structure committee.
- Oregon Department of Environmental Quality Solid Waste Legislative and Policy Task Force

REGISTRATION

Registered Professional Engineer in Oregon and Washington

CAREERJanuary, 1979
to presentR. A. WRIGHT ENGINEERING
1340 S.W. Bertha Blvd.
Portland, Oregon 97219

Project Manager. Solid waste management consulting in collection, sanitary landfill transfer station, rate analysis, and resource recovery systems. Sewer, water, and storm drain consulting. Responsible for new business development and technical director for all solid waste management projects.

June, 1972 to
January, 1979METROPOLITAN SERVICE DISTRICT
Portland, Oregon

RESUME
Charles C. Kemper

Page 2

Director. Responsible for general management and administration of MSD, including budget preparation, financial administration, personnel administration with staff responsibility to the MSD Board of Directors for solid waste management, Washington Park Zoo, and flood control programs. Responsible for development and management of a 1,400 ton per day solid waste resource recovery program, including development of detailed environmental assessments, site selection, engineering, financial, and rate analyses. Also responsible for drainage and flood control management for metropolitan drainage basins and coordination of area-wide studies for water resources and wastewater management.

November, 1961
to June, 1964

THE BOEING COMPANY
Seattle, Washington

June, 1966 to
June, 1972

Project Engineer. Performed project engineer management functions for small scale and full scale systems test programs. Responsibilities included resource management, directing electrical and mechanical installation and test operations. Required technical knowledge of fluid mechanics, mechanical design, hydraulics, computer programming and statistical methods.

Design Engineer. Responsible for preparation of detailed design drawings and specifications for mechanical and structural propulsion systems.

February, 1959
to November, 1961

ROCKETDYNE DIVISION OF NORTH AMERICAN/ROCKWELL
Canoga Park, California

June, 1964 to
June, 1972

Project Engineer. Responsible for design, fabrication, and installation of rocket engine test facilities, including data acquisition and analysis.

January, 1979

Field Engineer. Responsible for field engineering relations, managing rocket engine operations, and coordinating field modifications.

The reports were the result of studies prepared under my supervision which investigated various proposals for road, flood control and regional park projects. The studies included a determination as to the engineering and economic feasibility of the projects and their conformity with the County General Plan. Personally presented the results of the studies at public meetings and hearings and prepared policy recommendations for adoption of the specific plan by the County Board of Supervisors.

December, 1972
to March, 1975

ORANGE COUNTY FLOOD CONTROL DISTRICT
DEVELOPMENT SERVICES DIVISION

Associate Civil Engineer. Supervisor of the Development Control Section. Supervised subordinate engineers responsible for the review of plans and engineering calculations prepared by consulting engineers for drainage improvements being designed and constructed in conjunction with subdivision development. Personally conferred with consulting engineers and developers in determining sound solutions to drainage problems. Reviewed tentative subdivision maps and made recommendations to County Planning Commission as to the type of drainage improvements required.

March, 1970 to
December, 1972

ORANGE COUNTY FLOOD CONTROL DISTRICT
DESIGN DIVISION

Assistant Civil Engineer. Design Squad Leader responsible for planning, organizing, supervising and reviewing the design of flood control projects including the development of plans, specifications and cost estimates. Prepared joint powers agreements to implement cooperative projects with other agencies and performed the liaison work required to insure completion of projects on schedule. Served as resident engineer during the construction phase of one of the projects designed. Instructed district engineers in the use of critical path method scheduling techniques.

February, 1969
to March, 1970

ORANGE COUNTY FLOOD CONTROL DISTRICT
DESIGN DIVISION

Junior Civil Engineer. Designed flood control facilities on a project basis, including complete hydraulic and structural calculations; supervised the preparation of contract plans.

RESUME

HAL H. REITMEIER, P.E.

EDUCATION

1969 to 1973 CALIFORNIA STATE UNIVERSITY, Long Beach,
California, M.S. Hydraulic Engineering

1964 to 1969 CALIFORNIA STATE COLLEGE, Long Beach,
California, B.S. Civil Engineering

1961 to 1964 ORANGE HIGH SCHOOL, Orange, California

ORGANIZATIONS

American Society of Civil Engineers
Tau Beta Pi

REGISTRATION

Registered Professional Engineer in Oregon,
Washington and California

CAREER

August, 1977 R. A. WRIGHT ENGINEERING, INC.
to Present 1340 S. W. Bertha Blvd.
Portland, Oregon 97219

Senior Supervising Engineer. Senior Engineer responsible for the supervisor of the firm's engineering staff including the scheduling of all work and personnel. Responsible for directing the implementation of municipal public works construction projects including project design, right-of-way acquisition, contract administration, field surveying and construction supervision and inspection.

October, 1976 COUNTY OF ORANGE
to July, 1977 DESIGN DIVISION
ENVIRONMENTAL MANAGEMENT AGENCY

Associate Civil Engineer. Design Unit Supervisor responsible for planning, organizing, directing and reviewing the work of subordinate professional engineers who are preparing plans and specifications for the construction of major county arterial highway projects.

March, 1975 to COUNTY OF ORANGE
October, 1976 PROJECT PLANNING DIVISION
ENVIRONMENTAL MANAGEMENT AGENCY

Associate Civil Engineer. Program Manager responsible for the preparation of specific plan reports which present alternative proposals for regional public works projects.

RESUME

ROBERT KEECH, P.E.

EDUCATIONOREGON STATE UNIVERSITY
B.S. Civil EngineeringPost Graduate Studies in Engineering and
Operational PlanningU. S. ARMY
Pavement Materials Analysis SchoolREGISTRATION

Civil Engineer, Oregon

PROFESSIONAL AFFILIATIONS

INSTITUTE OF TRANSPORTATION ENGINEERS

AMERICAN PUBLIC WORKS ASSOCIATION

EXPERIENCE

Mr. Keech has been associated with a wide range of transportation engineering projects. His 16 years of experience includes: traffic capacity studies; goods movement studies; road standard, location and feasibility studies for a wide range of roadway types; pavement structure evaluation and design; project management; contract administration and concrete and asphalt design quality assurance.

1978 to 1981

Served as City Traffic Engineer for the City of Beaverton, Oregon

1977 to 1978

Served as Solid Waste Engineer for the Metropolitan Service District, Portland, Oregon.

1975 to 1977

Served as Road Management/Transportation Engineer for the Santiam Engineering Zone, US Forest Service, Sweet Home, Oregon.

1973 to 1974

Served as a design engineer for the Location/Reconnaissance Section of the Oregon State Highway Division, Salem, Oregon.

1965 to 1972

He served in progressively higher technical positions in the design, evaluation and quality assurance of concrete asphalt and soils.

RESUME

DEAN P. GISVOLD

EDUCATION

1963

B. S., IOWA STATE UNIVERSITY

1966

LL. B., UNIVERSITY OF MINNESOTA,
Law SchoolPROFESSIONAL LICENSESAdmitted to practice law in the State of
OregonAFFILIATIONSMultnomah, Oregon and American Bar
Associations
American Arbitration Association
Governmental Refuse Collection and
Disposal AssociationPROFESSIONAL EXPERIENCE

Mr. Gisvold has practiced law in Oregon since 1966 with special emphasis on solid waste management and real property law. As counsel to the Metropolitan Service District (Metro) since 1970, he has been intimately involved in Metro's solid waste management program, including Metro's landfill operations, transfer stations and resource recovery facility. Mr. Gisvold has also served as an advisor to Lane and Union Counties in Oregon, with respect to their respective resource recovery facilities.

During Mr. Gisvold's representation of Metro he has:

- Drafted and lobbied solid waste legislation at the Oregon Legislature;
- negotiated a signed energy purchase contract with Publishers Paper Company;
- prepare design, construct and operation contracts for the resource recovery facility;
- participated in the preparation of requests for qualifications and requests for proposals;

- participated in the land use approval process for Metro's proposed resource recovery facility in Oregon City in its proposed disposal site in Multnomah County;
- issued numerous opinions concerning Metro's solid waste management program, including flow control of solid waste;
- participated and advised Metro officials during Metro's assumption of the operation of St. Johns Landfill in the City of Portland.

Mr. Gisvold is presently Project Counsel to the Metro team responsible for implementation of the resource recovery project.



Sweet, Edwards & Associates, Inc.
P.O. Box 328 • Kelso, WA 98626 • 206-423-3580
Environmental Geology, Ground Water, Engineering Geology & Drilling Services

H. Randy Sweet, Principal Geologist/Hydrogeologist

**ACADEMIC
BACKGROUND:**

Attended: Washington State University 1962-64, majoring in chemistry.
Graduated: Lower Columbia College 1965, A.A. majoring in chemistry;
Western Washington State College 1967, B.A. majoring in
geology with a chemistry minor; and University of Oregon
1972, M.S. majoring in geology.

EXPERIENCE:

1966-67: Departmental assistant at W.W.S.C., teaching labs.
1967: Field assistant for Newmont Exploration Ltd. on the Seward
(Summer) Peninsula, Alaska. Work involved the interpretation of
airborne geophysical logs, ground magnetometer and radio-
metric surveys, heavy sediment and soil sampling for
geochemical studies, claim evaluation, geologic mapping
and cartographic work.
1967-68 Graduate Teaching Fellow at the University of Oregon.
and 71-72: Instructing geology labs.
1968: Field assistant to Dr. M. A. Kays of the University of Oregon
(Summer) Mapped flow volcanics in the western Cascades.
1968-71: American Peace Corps Volunteer. Trained 13 weeks in language
(Hindi-Urdu), well drilling techniques, and ground-water explo-
tion and evaluation. Worked as an adviser at the state level
in Haryana, India, and guided ground-water exploration includ-
water table and quality mapping, strata correlation, aquifer
performance testing, water budget calculations and areal quan-
tification of ground-water resources.
1972-74: Hydrogeologist with the Office of the Oregon State Engineer.
Liaison to Oregon Department of Environmental Quality, evalu-
ating general geologic and hydrologic conditions of solid
and hazardous waste disposal sites and other existing or
potential ground-water quality problems. Also act as a
witness for the D.E.Q. at public hearings and provide expert
testimony in litigation relating to ground-water problems.
1974-: Private Consulting Geologist/Hydrogeologist.

**PROFESSIONAL
ORGANIZATIONS:**

Association of Engineering Geologists
Geologic Society of America
Oregon Academy of Science
Technical Division, National Water Well Association
Water Pollution Control Federation, Northwest Association

REGISTRATION:

Geologist, Oregon, No. 084
Engineering Geologist, Oregon, No. E084
Designer, On-Site Sewage Disposal Systems, Cowlitz-Wahkiakum Health Distri.
NOTE: Washington State Registration of Geologists is pending
legislative action.

APPENDIX 2
R.A.WRIGHT ENGINEERING, INC.
PROJECT DESCRIPTIONS

MOOLACH CREEK LANDFILL SITE SELECTION AND PRELIMINARY DESIGN

LOCATION: Newport, Oregon

FUNCTION: Perform Site Search and Preliminary Design for Regional Sanitary Landfill

This project consisted of two phases. Phase I required evaluation of 28 potential sites and recommending three to four selected sites. Phase II required preparation of preliminary design and landfill permit applications for the selected site. In addition, land use approval procedures were initiated and financial feasibility, including operating and construction costs estimates were prepared. A rate analysis projected future rate impacts. Technical studies included soils and groundwater work, solid waste flow projections, transfer station feasibility, and landfill design and operational plans.

CLIENT: Lincoln County, Oregon

PERSONNEL: Charles C. Kemper, P.E., Project Manager
John C. Hanke, P.E., Project Engineer
Arlan Rippe, Special Consultant

TROUTDALE LANDFILL DESIGN AND DEVELOPMENT

LOCATION: Troutdale, Oregon

FUNCTION: Design of Landfill Expansion for Municipal Solid Wastes

This project included preparing design documents and permit applications for expansion of an existing landfill. Hydrogeological studies were performed to assure continued use of the facility and minimize groundwater impacts. The landfill capacity is approximately 500,000 cubic yards. Design treatments included containment and collection of landfill gas using passive means. A financial and rate analysis was prepared to determine viability of the project.

CLIENT: City of Troutdale, Oregon

PERSONNEL: Charles C. Kemper, P.E., Project Manager
John C. Hankee, P.E., Engineer
John M. Waddill, Technician
John L. Nix, Technician
H. Randy Sweet, Special Consultant

LANDFILL CAPACITY ANALYSIS

LOCATION: Portland, Oregon

FUNCTION: Analyze Solid Waste Landfill Capacities in the Portland Metropolitan Area.

This work consisted of preparing topographical maps of five landfill sites and overlaying the final grading plans. Based on the total landfill capacity, incoming flow volume, and solid waste densities, the landfill life was estimated. This work uncovered several final grading plans which were insufficient.

CLIENT: METRO

PERSONNEL: Charles C. Kemper, P.E., Project Engineer
John M. Waddill, Technician
Spencer Gross, Special Consultant

HILLSBORO LANDFILL CLOSURE PLAN

LOCATION: Hillsboro, Oregon

FUNCTION: Sanitary Landfill Closure Plan

This project included preparing a closure plan for a 25 acre demolition landfill site. The work consisted of preparing grading plans, designing storm water runoff system, testing and selecting soils for final cover, and submitting the plans and report to the State Regulatory Agency for approval. Subsequent support work included grade staking and construction inspection.

CLIENT: Hillsboro Landfill Inc.

PERSONNEL: Charles C. Kemper, P.E., Project Manager
Deane Blair, Technician
John Waddill, Technician

WAYBO/ROSELAWN LANDFILL DESIGN AND DEVELOPMENT

LOCATION: Portland, Oregon

FUNCTION: Design and Develop a Municipal Solid Waste Landfill for Public and Commercial Solid Wastes.

This project included preliminary and final design of a landfill site in Northeast Portland which had 2.5 million cubic yard capacity. Hydrogeological work preceded preparation of an engineering design and operational plan. Disposal facility permits have been received so that construction can begin. A major land use decision was required for this site before the project could proceed. The landfill design utilized state-of-art techniques including bottom seals and leachate collection systems, landfill gas containment and collection systems, and water quality monitoring well installations. A financial analysis was prepared to assure viability of the project.

CLIENT: Private Contractor

PERSONNEL: Charles C. Kemper, P.E., Project Manager/Engineer
John C. Hanke, P.E., Engineer
John M. Waddill, Technician
John L. Nix, Technician
H. Randy Sweet, Special Consultant

I-5 SANITARY LANDFILL PRELIMINARY DESIGN

LOCATION: Salem, Oregon

FUNCTION: Preliminary Engineering Design Study for a Sanitary Landfill and Public Transfer Station.

This project included preparing preliminary design plans for this proposed Marion County regional sanitary landfill site. Projected life of the site is 34 years and 9.3 million cubic yards of capacity. The design considered the following environmental issues:

- Storm Water Diversion
- Leachate Collection and Disposal
- Leachate Containment
- Groundwater Impacts
- Air and Odor
- Birds
- Noise
- Traffic
- Dirt and Litter
- Rodent and Vector
- Landfill Gas

Initial capital requirements including land are approximately 2.5 million. Operating costs were estimated and a rate was projected. Operating plans and generalized specifications were prepared. A preliminary design document was prepared and submitted to the State DEQ and Marion County preliminary approval has been received by DEQ and land use approval by Marion County.

CLIENT: Brown's Island, Inc.

PERSONNEL: Charles C. Kemper, P.E., Project Manager
 Hal Reitmeier, P.E., Project Engineer
 John Hankee, P.E., Project Engineer
 Randy Sweet, Special Consultant
 Dan Cordell, Special Consultant
 Jeff Tross, Special Consultant

KILLINGSWORTH DISPOSAL LANDFILL DESIGN AND DEVELOPMENT

LOCATION: Portland, Oregon

FUNCTION: Design and Develop a Municipal Solid Waste Landfill for
Public and Commercial Solid Wastes

This project consisted of a landfill site with 1.5 million cubic yards of landfill space. Preliminary and final designs were completed in conjunction with hydrogeological work. Annual solid waste flow capacities were 700,000 to 900,000 cubic yards. Landfill permits were received from state and local solid waste agencies, and the land use authority. Landfill design utilized state-of-art techniques including bottom seals and leachate collection and treatment systems, landfill gas containment and collection systems, and water quality monitoring well installations. Site construction was monitored and certified pursuant to state requirements. Major equipment was specified and procured. A financial analysis was prepared to determine the viability of the project.

CLIENT: Private Developer

PERSONNEL: Charles C. Kemper, P.E., Project Manager
John C. Hanke, P.E., Engineer
John M. Waddill, Technician
John L. Nix, Technician
H. Randy Sweet, Special Consultant

153060

LAVELLE LANDFILL METHANE GAS EXTRACTION SYSTEM

LOCATION: Portland, Oregon

FUNCTION: Design and Construction of a Methane Gas Extraction System for a Sanitary Landfill.

The project included preparing detailed design drawings and specifications for a landfill methane gas extraction system. This included equipment procurement, monitoring construction, sampling wells, and preparing an operation and maintenance manual. The project required construction of 21 extraction wells, underground header pipe, control valves, partial vacuum blower, variable speed power supply, and muffler system. There was an urgency for this project since methane gas had migrated off-site under adjacent houses and caused a hazardous condition. Within 24 hours after the extraction system was activated, methane gas migration was under control. In addition, a separate report was prepared concerning recovery of methane gas and potential markets. Continued methane gas monitoring has been performed.

CLIENT: H. G. Lavelle, Inc., Portland, Oregon

PERSONNEL: Charles C. Kemper, P.E., Senior Engineer
John L. Nix, Technician
John M. Waddill, Technician

An Ordinance authorizing the City to enter into agreement with R. A. Wright Engineering Inc., for a fixed fee of \$45,600.00 to provide consulting engineering services to develop a detailed analysis and recommendation to the City of alternative strategies deemed most efficient, economical and acceptable in the disposal of construction spoils material generated by the Bureau of Water Works and the Bureau of Maintenance, transferring \$45,600 within the General Fund and Water Fund, authorizing the drawing and delivery of warrants and declaring an emergency.

The City of Portland Ordains:

Section 1. The Council finds:

1. The Bureau of Water Works and the Bureau of Maintenance find it desirable to contract for engineering services to develop a detailed analysis and recommendation of alternative strategies in the disposal of construction spoils.
2. R. A. Wright, Engineering Inc., is qualified and willing to perform such engineering services, and has been recommended by the project consultant selection committee.
3. A proposed agreement has been negotiated with R. A. Wright, Engineering Inc., which provides for specific engineering services at a fixed fee of \$45,600.00.
4. That funds for this work shall be appropriated jointly of equal proportion from the General Fund Operating Contingency and the Water Fund Contingency for consulting engineering services per Resolution No. 32932.

NOW, THEREFORE, The Council directs:

- a. The FY 1981-82 City budget is hereby amended to change appropriations as follows:

<u>General Fund</u>	<u>Transfer</u>	
	<u>From</u>	<u>To</u>
Bureau of Maintenance (BUC 16800139.210)		\$22,800
General Operating Contingency (BUC 29700010.710)	\$22,800	
TOTAL GENERAL FUND	<u> </u>	<u> </u>
	\$22,800	\$22,800

ORDINANCE No.

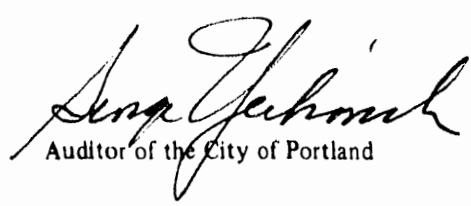
<u>Water Fund</u>	<u>Transfer</u>	
	<u>From</u>	<u>To</u>
General Operating Contingency (BUC 17500155.710)	\$22,800	
Water Bureau (BUC 16800013.210, Proj. #3726)		\$22,800
TOTAL WATER FUND	<u>\$22,800</u>	<u>\$22,800</u>

- b. The auditor and Commissioner of Public Works are hereby authorized to enter into agreement with R. A. Wright Engineering Inc. for a fixed fee of \$45,600.00 for consulting engineering services to develop a detailed analysis and recommendation to the City of alternative strategies in the disposal of construction spoils, such agreement to be substantially in accordance with the form of agreement attached to the original of this Ordinance, and by this reference made a part hereof.
- c. The Mayor and Auditor are here by authorized to draw and deliver warrants for work conducted by the consultant and will be charged against BUC #16800139, Street Maintenance, and against BUC 18600013, Water Bureau, when demand is presented, and approved by proper authorities.

Section 2. The Council declares that an emergency exists because the useful capacity of the City's existing dump sites is rapidly diminishing and a delay in proceedings will unnecessarily delay the analysis and recommendation for disposal of construction spoils; therefore, this Ordinance shall be in force and effect from and after it's passage by the Council.

Passed by the Council, APR 7 1982
 Commissioner Mike Lindberg
 Dick Godfrey:sf
 March 25, 1982
 16800139

Attest:


 Auditor of the City of Portland

ORDINANCE No.

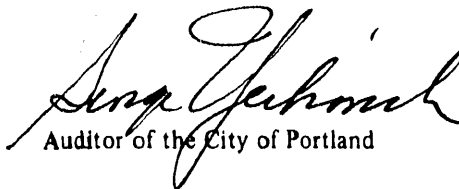
<u>Water Fund</u>	<u>From</u>	<u>Transfer</u>	<u>To</u>
General Operating Contingency (BUC 17500155.710)	\$22,800		
Water Bureau (BUC 16800013.210, Proj. #3726)			\$22,800
TOTAL WATER FUND	<u>\$22,800</u>		<u>\$22,800</u>

- b. The auditor and Commissioner of Public Wroks are hereby authorized to enter into agreement with R. A. Wright Engineering Inc. for a fixed fee of \$45,600.00 for consulting engineering services to develop a detailed analysis and recommendation to the City of alternative strategies in the disposal of construction spoils, such agreement to be substantially in accordance with the form of agreement attached to the original of this Ordinance, and by this reference made a part hereof.
- c. The Mayor and Auditor are here by authorized to draw and deliver warrants for work conducted by the consultant and will be charged against BUC #16800139, Street Maintenance, and against BUC 18600013, Water Bureau, when demand is presented, and approved by proper authorities.

Section 2. The Council declares that an emergency exists because the useful capacity of the City's existing dump sites is rapidly diminishing and a delay in proceedings will unnecessarily delay the analysis and recommendation for disposal of construction spoils; therefore, this Ordinance shall be in force and effect from and after it's passage by the Council.

Passed by the Council, APR 7 1982
 Commissioner Mike Lindberg
 Dick Godfrey:sf
 March 25, 1982
 16800139

Attest:


 Auditor of the City of Portland

Calendar No. 862

ORDINANCE No. 153060

Title

An Ordinance authorizing the City to enter into agreement with R. A. Wright, Engineering Inc., for a fixed fee of \$45,600 to provide consulting engineering services to develop a detailed analysis and recommendation to the City of alternative strategies deemed most efficient, economical and acceptable in the disposal of construction spoils material generated by the Bureau of Water Works and the Bureau of Maintenance, transferring \$45,600 within the General Fund and Water Fund, authorizing the drawing and delivery of warrants and declaring an emergency.

INTRODUCED BY
<i>Comm. Lindberg</i>

NOTED BY THE COMMISSIONER
Affairs
Finance and Administration
Safety
Utilities
Works <i>ML/MS</i>

BUREAU APPROVAL
Bureau: Bureau of Maintenance
Prepared By: <i>Dick Godfrey</i> Date: <i>March 25, 1982</i>
Budget Impact Review: <input checked="" type="checkbox"/> Completed <input type="checkbox"/> Not required
Bureau Head: <i>Willis T. White</i> <i>[Signature]</i>

CALENDAR	
Consent	Regular <input checked="" type="checkbox"/>

NOTED BY
City Attorney <i>[Signature]</i>
City Auditor
City Engineer <i>[Signature]</i>
<i>John M. Lang</i>

THE COMMISSIONERS VOTED AS FOLLOWS:		
	Yeas	Nays
JORDAN	<i>1</i>	
LINDBERG	<i>1</i>	
SCHWAB		
STRACHAN		
IVANCIE	<i>1</i>	

FOUR-FIFTHS CALENDAR	
JORDAN	
LINDBERG	
SCHWAB	
STRACHAN	
IVANCIE	

Filed APR 1 1982

GEORGE YERKOVICH
Auditor of the CITY OF PORTLAND

By *[Signature]*
Deputy