



MULTNOMAH COUNTY OREGON

OFFICE OF THE BOARD CLERK
SUITE 1510, PORTLAND BUILDING
1120 S.W. FIFTH AVENUE
PORTLAND, OREGON 97204

BOARD OF COUNTY COMMISSIONERS		
GLADYS McCOY •	CHAIR •	248-3308
DAN SALTZMAN •	DISTRICT 1 •	248-5220
GARY HANSEN •	DISTRICT 2 •	248-5219
TANYA COLLIER •	DISTRICT 3 •	248-5217
SHARRON KELLEY •	DISTRICT 4 •	248-5213
CLERK'S OFFICE •	248-3277 •	248-5222

AGENDA

MEETINGS OF THE MULTNOMAH COUNTY BOARD OF COMMISSIONERS

FOR THE WEEK OF

May 10- 14, 1993

- Tuesday, May 11, 1993 - 9:30 AM - Planning Items Page 2
- Tuesday, May 11, 1993 - 1:30 PM - Board Briefings. Page 2
- Tuesday, May 11, 1993 - 2:30 PM - Agenda Review. Page 2
- Tuesday, May 11, 1993 - 6:00 PM - Joint Meeting. Page 2
- Thursday, May 13, 1993 - 9:30 AM - Regular Meeting Page 3

Thursday Meetings of the Multnomah County Board of Commissioners are taped and can be seen at the following times:

- Thursday, 10:00 PM, Channel 11 for East and West side subscribers
- Thursday, 10:00 PM, Channel 49 for Columbia Cable (Vancouver) subscribers
- Friday, 6:00 PM, Channel 22 for Paragon Cable (Multnomah East) subscribers
- Saturday 12:00 PM, Channel 21 for East Portland and East County subscribers

INDIVIDUALS WITH DISABILITIES MAY CALL THE OFFICE OF THE BOARD CLERK AT 248-3277 OR 248-5222 OR MULTNOMAH COUNTY TDD PHONE 248-5040 FOR INFORMATION ON AVAILABLE SERVICES AND ACCESSIBILITY.

Tuesday, May 11, 1993 - 9:30 AM

Multnomah County Courthouse, Room 602

PLANNING ITEMS

- P-1 Discuss existing appeal procedures and identify possible alternative appeal models. Presented by R. Scott Pemble and Larry Kressel. 30 MINUTES REQUESTED.
- P-2 Review the Land Conservation and Development Commission's (LCDC) Periodic Review Order and identify issues, work program impacts, and alternative response strategies. Presented by R. Scott Pemble and Larry Kressel. 20 MINUTES REQUESTED.
- P-3 First Reading of a Proposed ORDINANCE Amending those Sections of Multnomah County Code Chapter 11.15 Regulating Land Uses within the Columbia River Gorge National Scenic Area. Presented by Bob Hall. 20 MINUTES REQUESTED.
-

Tuesday, May 11, 1993 - 1:30 PM

Multnomah County Courthouse, Room 602

BOARD BRIEFINGS

- B-1 Review of Seismic Information and FY 1992-93 Structural Studies. Presented by Jim Emerson, Jean Miley, and Ian Madin (Oregon Dept. of Geology & Mineral Industries). 60 MINUTES REQUESTED.
-

Tuesday, May 11, 1993 - 2:30 PM

Multnomah County Courthouse, Room 602

AGENDA REVIEW

- B-2 Review of Agenda for Regular Meeting of May 13, 1993
-

Tuesday, May 11, 1993 - 6:00 - 7:00 PM

Mead Building
421 SW Fifth, Second Floor Conference Room 204

JOINT MEETING

COMMUNITY CHILDREN and YOUTH SERVICES COMMISSION/
MULTNOMAH COUNTY COMMISSION

- B-3 Joint Board of County Commissioners and Community Children and Youth Services Commission Meeting to Discuss Concerns, Priorities and Specific Issues for Multnomah County's Children and Youth, Including Children's Care Team Proposals.

REGULAR MEETING

CONSENT CALENDAR

DEPARTMENT OF SOCIAL SERVICES

- C-1 RESOLUTION in the Matter of Authorizing Designees of the Mental health Program Director to Direct a Peace Office to Take an Allegedly Mentally Ill Person into Custody
- C-2 Ratification of an Intergovernmental Revenue Agreement, Contract #104443, between Multnomah County Mental Health, Youth, and Family Services Division and the Children's Services Division to Pay for One Half the Costs of the Kaleidoscope, Inc. Services up to \$2,052.89, for the Period April 15, 1993 through June 30, 1993
- C-3 Ratification of Amendment No. 5 to Intergovernmental Agreement, Contract #100183, between Multnomah County Mental Health, Youth, and Family Services Divisions Mental and Emotional Disabilities Program and the Oregon Health Sciences University to Decrease Non-Residential Adult Services by \$27,294 due to Additional State Assessment for 92 Medicaid Match Effective July 1, 1992 through June 30, 1993

DEPARTMENT OF HEALTH

- C-4 Ratification of Amendment #1 to Intergovernmental Agreement, Contract #103661, between Multnomah County and the Oregon Health Sciences University, School of Medicine to Add the Department of Family medicine to the List of Administrative Units Providing Students to Work in County Clinics per the Affiliation Agreement, for the Period July 1, 1993 through June 30, 1994
- C-5 Ratification of Amendment #1 to Intergovernmental Agreement, Contract #201003, between Multnomah County and Tillamook County Public Health Department to Extend Agreement through June 30, 1993 and Continue Provision of HIV Case Management Services for Persons with Disabling HIV Disease
- C-6 Ratification of Amendment #1 to Intergovernmental Agreement, Contract #200803, between Multnomah County and Clackamas County Public Health Division to Extend Agreement through June 30, 1993 and Continue Provision of HIV Case Management Services for Persons with Disabling HIV Disease
- C-7 Ratification of Amendment #1 to Intergovernmental Agreement, Contract #201013 3between Multnomah County and Clatsop County Public Health Department to Extend Agreement through June 30, 1993 and Continue Provision of HIV Case Management Services for Persons with Disabling HIV Disease

- C-8 Ratification of an Intergovernmental Agreement, Contract #200074, between Multnomah County and the Oregon Health Sciences University to Continue to provide Medical Consultation Services at the TB Clinic, for the Period July 1, 1993 through June 30, 1994

DEPARTMENT OF ENVIRONMENTAL SERVICES

- C-9 FINAL ORDER, DENYING CU 22-92, In the Matter of Review of the Hearings Officer Decision Which Denied Conditional Use Approval of a Non-Resource Related Dwelling in the MUF District
- C-10 ORDER in the Matter of Contract 15742 for the Sale of Certain Real Property to ANIL LAL
- C-11 ORDER in the Matter of the Execution of Deed D930875 for Certain Tax Acquired Property to SHRIL D. LOMAX & DAVID J. LOMAX
- C-12 ORDER in the Matter of the Execution of Deed D930871 for Certain Tax Acquired Property to RUBEN J. MENASHE & ELIZABETH L. MENASHE
- C-13 ORDER in the Matter of the Execution of Deed D930869 for Certain Tax Acquired Property to WESTERN SPECIALTY PRODUCTS, INC.
- C-14 ORDER in the Matter of the Execution of Deed D930873 for Certain Tax Acquired Property to CHRISTOPHER W. COLES
- C-15 ORDER in the Matter of the Execution of Deed D930870 for Certain Tax Acquired Property to DAN GARNES
- C-16 ORDER in the Matter of the Execution of Deed D930885 Upon Complete Performance of Contract to JOHN PAUL BLISS and JORETTA BLISS
- C-17 ORDER in the Matter of Contract 15735 for the Sale of Certain Real Property to JEFFREY PAUL FISH
- C-18 ORDER in the Matter of Contract 15727 for the Sale of Certain Real Property to ROBERT HAHN & SHAROLYN McCALLUM
- C-19 ORDER in the Matter of Contract 15734 for the Sale of Certain Real Property to JEFFREY PAUL FISH
- C-20 ORDER in the Matter of Contract 15755 for the Sale of Certain Real Property to GARY L. MARTIN & GINA M. MARTIN
- C-21 ORDER in the Matter of Contract 15733 for the Sale of Certain Real Property to JEFFREY PAUL FISH
- C-22 ORDER in the Matter of the Execution of Deed D930874 for Certain Tax Acquired Property to CRAIG ANDERSON
- C-23 ORDER in the Matter of the Execution of Deed D930876 for Certain Tax Acquired Property to HOMER G. BAINBRIDGE & ANITA B. BAINBRIDGE

- C-24 ORDER in the Matter of the Execution of Deed D930877 for Certain Tax Acquired Property to RHYNE, KREIG & KEITH, a PARTNERSHIP
- C-25 ORDER in the Matter of the Execution of Deed D930878 for Certain Tax Acquired Property to RENALDO GRANT
- C-26 ORDER in the Matter of the Execution of Deed D930872 for Certain Tax Acquired Property to CHARLES WILLIAMS & LESLEE WILLIAMS

REGULAR AGENDA

JUSTICE SERVICES

SHERIFF'S OFFICE

- R-1 In the Matter of a Request for Exemptions from the Hiring Restriction Policy for Civilian Workers to Hire One Civilian Equipment Manager, Two Warehouse Workers, and One Civilian Property/Commissary/Laundry Manager (Continued from Thursday, May 6, 1993)

NON-DEPARTMENTAL

MANAGEMENT SUPPORT

- R-2 First Reading of a Proposed ORDINANCE Amending Ordinance 660 as Amended by Ordinance 722, the Multnomah County Audit Committee (MCAC) Ordinance by providing for Staggered Terms of the Three Citizen Member of MCAC

DEPARTMENT OF SOCIAL SERVICES

- R-3 Budget Modification DSS #54 Requesting Authorization to Increase Aging Services Long Term Care Budget by Using County General Funds Used for Increased Indirect Charges, which are Already in the ASD Budget, to match Title XIX Funds
- R-4 Budget Modification DSS #55 Requesting Authorization to Reduce \$23,774 in Older American Act Federal Funds from the Aging Services Division Budget, and \$2,758 in County General Funds for Indirect Costs, due to Reductions in State of Oregon Allocations
- R-5 Budget Modification DSS #56 Requesting Authorization to Reduce a net of \$32,816 in Oregon Project Independence State Funds from the Aging Services Division Budget, Shifts \$14,259 in OPI Funds to Org. 1900, Adds \$5,000 in OPI CEP Client Fees, and Adds Net \$1,324 in County General Funds for Indirect Costs, Due to Reductions in State of Oregon Allocations
- R-6 Budget Modification DSS #57 Requesting Authorization to Provide \$14,325 Title XIX Match to County General Funds Allocated to the Public Guardian for COLA Increases; \$755 in County General Funds are Shifted to Org. 1706 to Provide Match Funds for Title XIX Paid Indirect; and Org. 1706 Serves as the Service Reimbursement Mechanism for Title XIX Funds

R-7 Budget Modification DSS #58 Requesting Authorization to provide \$17,970 Title XIX Match to County General Funds allocated to the Adult Care Home Program for COLA Increases; \$947 in County General Funds are Shifted to Org. 1706 to Provide Match Funds for Title XIX Paid Indirect; Org. 1706 Serves as the Service Reimbursement Mechanism for Title XIX Funds

DEPARTMENT OF ENVIRONMENTAL SERVICES

R-8 PROCLAMATION for the Purpose of Recognizing National Public Works Week, May 16 - 22, 1993

R-9 RESOLUTION in the Matter of Designation of Newspaper for Publication of Notice of Foreclosure of Tax Liens as Shown on the Multnomah County 1993 Foreclosure List

R-10 First Reading of a Proposed ORDINANCE in the Matter of Increasing Cemetery Rates for County Cemeteries, Amending Multnomah County Code 5.10.250

R-11 First Reading of a Proposed ORDINANCE Amending Multnomah County Code Chapter 10.15.110, Park Fees

R-12 RESOLUTION in the Matter of Accepting the Plan for the 1993 Multnomah County Fair

NON-DEPARTMENTAL

R-13 Ratification of Amendment #1 to Intergovernmental Agreement, Contract #4503487, between the Governments of Multnomah and Washington Counties and the City of Portland Expanding The Private Industry Council Board Membership to Increase Representation of Community Based Organizations and/or Organized Labor to Reach a Combined Level of 15% of the Board Membership

R-14 RESOLUTION in the Matter of Approving The Private Industry Council Job Training Plan

R-15 First Reading of a Proposed ORDINANCE Freezing Salaries of Exempt Employees Earning \$60,000 or More Per Year, and Amending Ordinance 742

PUBLIC COMMENT

R-16 Opportunity for Public Comment on Non-Agenda Matters. Testimony Limited to Three Minutes Per Person.

0265C/43-48
cap

Meeting Date: MAY 11 1993

Agenda No.: B-1

(Above space for Clerk's Office Use)

BRIEFING

AGENDA PLACEMENT FORM
(For Non-Budgetary Items)

SUBJECT: SEISMIC INFORMATION AND FY1992-93 STRUCTURAL STUDIES

BCC Informal 5-11-93 BCC Formal 4-29-93
(date) (date)

DEPARTMENT Environmental Services DIVISION Facilities & Property Management

CONTACT Jim Emerson TELEPHONE 248-3322

PERSON(S) MAKING PRESENTATION Jim Emerson, Jean Miley,
Ian Madin (Oregon Dept. of Geology & Mineral Industries)

ACTION REQUESTED:

INFORMATIONAL ONLY POLICY DIRECTION APPROVAL

ESTIMATED TIME NEEDED ON BOARD AGENDA: 1 Hour

CHECK IF YOU REQUIRE OFFICIAL WRITTEN NOTICE OF ACTION TAKEN: _____

BRIEF SUMMARY (include statement of rationale for action requested, as well as personnel and fiscal/budgetary impacts, if applicable):

Review of seismic evaluation program initiated in 1992-93. Results of three structural studies: Ford Building, Kelly Building & Work Release Center. Comments on observed damage from March 25, earthquake. (County Staff)

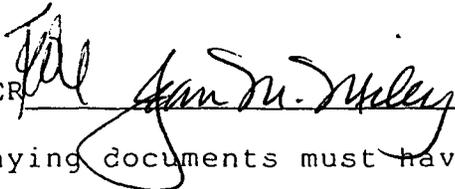
Presentation on Portland area earthquake hazards (Ian Madin)

(If space is inadequate, please use other side)

SIGNATURES:

ELECTED OFFICIAL _____

Or

DEPARTMENT MANAGER 

(All accompanying documents must have required signatures)

BOARD OF
COUNTY COMMISSIONERS
1993 MAY - 4 AM 9:47
MULTNOMAH COUNTY
OREGON



MULTNOMAH COUNTY OREGON

DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF FACILITIES AND
PROPERTY MANAGEMENT
2505 S.E. 11TH AVENUE
PORTLAND, OREGON 97202
(503) 248-3322

GLADYS McCOY
MULTNOMAH COUNTY CHAIR

MEMO

To: Board of County Commissioners
Hank Miggins, Acting Chair
Dan Saltzman
Gary Hansen
Tanya Collier
Sharron Kelley

From: Jim Emerson, Construction Manager

Date: May 11, 1993

Re: Preliminary Structural Studies of Three County Buildings

The County's strategy for meeting the challenge of Oregon's earthquake risk includes analyzing the structural condition of several buildings per year, in order to prioritize remediation efforts. The three buildings studied in 1992-3 are the Ford Building, Penumbra Kelly Building, and Restitution Center (also called Work Release Center.)

The attached letters contain the major information learned about each building. Employees have been notified of the findings; however, only this memo contains the preliminary costs of structural remediation:

Ford Building:	\$800,000 - \$950,000
Kelly Building	\$450,000 - \$600,000
MCRC	: \$850,000 - 1,000,000

The Kelly Building will be addressed by the City and County jointly, and in the near future, under a Bureau of Buildings mandate. This mandate stems from the building's status as an "essential facility" due to its accomodation of East Precinct. Under the terms of the lease, the County will pay 45.7% and the City, 54.3%.

The Ford Building and MCRC will have their major structural issues addressed in the future, after being prioritized with other County buildings. The value of the building versus the cost of repair will be analyzed at that time.

The buildings to be studied in 1993-4 include the Gill, Mead, Morrison, Hansen, and Yeon Buildings. You will be informed of the outcome of those studies.

Please call me at x 3322 if you have questions.

cc: F. Wayne George, Jean Miley, Dave Warren, Betsy Williams



MULTNOMAH COUNTY OREGON

DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF FACILITIES AND
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2505 S.E. 11TH AVENUE
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(503) 248-3322

GLADYS McCOY
MULTNOMAH COUNTY CHAIR

MEMO

To: Employees in the Penumbra Kelly Building

From: Jim Emerson, Facilities and Property Management
Jean Miley, Risk Management *JMM*

Date: May 10, 1993

Re: RESULTS OF PRELIMINARY STRUCTURAL STUDY, KELLY BUILDING

WHY WAS A STRUCTURAL STUDY DONE?

After discovery of structural deficiencies in the Central Library in 1990, in addition to working towards resolution of that situation, the Chair's Office, Risk Management, County Counsel and Facilities Management worked together to define an appropriate course of action for other County-owned buildings. The Board of County Commissioners passed Resolution 92-121 in June, 1992, committing the County to assessing the potential earthquake damage to County buildings and bridges while recognizing the limited funding available in the short term.

We have a plan to conduct preliminary studies on 3 or 4 buildings per year. If hazardous structural problems are found, they will be addressed immediately. If the buildings are at risk only in the case of a major earthquake, they will be prioritized so that funding and useability decisions can follow. This allows the County to take care of potential hazards in a planned way, and without spending unnecessary dollars on low-priority work.

The Kelly Building is one of the buildings studied in 1992-3.

WHAT DID WE LEARN?

The Kelly Building is in good structural condition for normal loading: its own weight, occupants, snow, and wind, for example. It also is capable of handling moderate earthquake forces, as is indicated by the complete lack of damage in the March 25 event this year. However, it is calculated to have inadequate design to resist the sideways forces from potential large earthquakes, especially along the south wall. The parking structure shows the same combination of adequate normal strength and inadequate design for large earthquakes. Because of the presence of the Police Precinct in the building, the City's Bureau of Buildings considers the Kelly Building to be an "essential facility," and will require that some lateral bracing be installed.

Kelly Building
page 2

WHAT ACTIONS ARE WE TAKING?

The Board of County Commissioners will be informally briefed on May 11, 1993. Unless they recommend a different course of action, we anticipate working with the Bureau of Buildings and structural engineers to develop a lateral-strengthening plan for the Kelly Building during fiscal year 1993-4.

The building on the whole is not more hazardous than it has been in its prior 35 years. However, we recommend staying away from the south (entry) wall in the event of an earthquake, until the required braces have been designed and installed. The installation of the various structural elements should not be too disruptive and are not expected to have a significant effect on the amount of space once they are in place.

Information will be made available periodically about the progress of the structural strengthening project. The initial step, an estimate of costs for budgeting purposes, is underway now and will be completed in May. Discussions between City and County, who share costs, will follow.

Four more buildings will be evaluated in 1993-4.

If you have questions, please call Jim Emerson at x 3322 or Jean Miley at x 3882.

cc: F. Wayne George
Hank Miggins
Jim Munz
Betsy Williams



MULTNOMAH COUNTY OREGON

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PORTLAND, OREGON 97202
(503) 248-3322

GLADYS McCOY
MULTNOMAH COUNTY CHAIR

MEMO

To: Employees in the Ford Building

From: Jim Emerson, Facilities and Property Management
Jean Miley, Risk Management

Date: May 10, 1993

Re: RESULTS OF PRELIMINARY STRUCTURAL STUDY, FORD BUILDING

WHY WAS A STRUCTURAL STUDY DONE?

After discovery of structural deficiencies in the Central Library in 1990, in addition to working towards resolution of that situation, the Chair's Office, Risk Management, County Counsel and Facilities Management worked together to define an appropriate course of action for other County-owned buildings. The Board of County Commissioners passed Resolution 92-121 in June, 1992, committing the County to assessing the potential earthquake damage to County buildings and bridges while recognizing the limited funding available in the short term.

We have a plan to conduct preliminary studies on 3 or 4 buildings per year. If hazardous structural problems are found, they will be addressed immediately. If the buildings are at risk only in the case of a major earthquake, they will be prioritized so that funding and useability decisions can follow. This allows the County to take care of potential hazards in a planned way, and without spending unnecessary dollars on low-priority work.

The Ford Building is one of the buildings studied in 1992-3.

WHAT DID WE LEARN?

The Ford Building is in good structural condition for normal loading: its own weight, occupants, snow, and wind, for example. It also is calculated to respond without frame or major wall damage to large earthquakes to the west or east of Portland. However, for large earthquakes north or south of Portland, some structural damage could occur. Since the March 25 earthquake was to the south and produced no damage at the Ford Building, it is readily apparent that only a very large quake would be a problem. For earthquakes from any direction, the weakest elements are not the building proper, but the chimney, the empty water tank, and the steel windows in the original part of the building, especially those bowed by corrosion.

Ford Building
page 2

WHAT ACTIONS ARE WE TAKING?

The Board of County Commissioners will be informally briefed on May 11, 1993. Unless they recommend a different course of action, we do not anticipate a comprehensive structural renovation of the Ford Building at this time. The building on the whole is not more hazardous than it has been in its prior 80 years. However, we plan to design modified windows and to replace the most-rusted units during 1993-4. We will also get prices on removal of the chimney and water tank; these are not particularly hazardous, but are a higher priority than the building itself. We would like to remove them without waiting for the complete County priority list to be accomplished several years from now. Funding for these two items will compete with many other needs.

Four more buildings will be evaluated in 1993-4.

If you have questions, please call Jim Emerson at x 3322 or Jean Miley at x 3882.

cc: F. Wayne George
Hank Miggins
Tom Guiney
Dwayne Prather
Lillie Walker
Betsy Williams



MULTNOMAH COUNTY OREGON

DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF FACILITIES AND
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2505 S.E. 11TH AVENUE
PORTLAND, OREGON 97202
(503) 248-3322

GLADYS McCOY
MULTNOMAH COUNTY CHAIR

MEMO

To: Employees in the Work Release Center

From: Jim Emerson, Facilities and Property Management
Jean Miley, Risk Management *JMM*

Date: May 10, 1993

Re: RESULTS OF PRELIMINARY STRUCTURAL STUDY, MCRC

WHY WAS A STRUCTURAL STUDY DONE?

After discovery of structural deficiencies in the Central Library in 1990, in addition to working towards resolution of that situation, the Chair's Office, Risk Management, County Counsel and Facilities Management worked together to define an appropriate course of action for other County-owned buildings. The Board of County Commissioners passed Resolution 92-121 in June, 1992, committing the County to assessing the potential earthquake damage to County buildings and bridges while recognizing the limited funding available in the short term.

We have a plan to conduct preliminary studies on 3 or 4 buildings per year. If hazardous structural problems are found, they will be addressed immediately. If the buildings are at risk only in the case of a major earthquake, they will be prioritized so that funding and useability decisions can follow. This allows the County to take care of potential hazards in a planned way, and without spending unnecessary dollars on low-priority work.

The MCRC Building is one of the buildings studied in 1992-3.

WHAT DID WE LEARN?

The MCRC is in good structural condition for normal loading: its own weight, occupants, snow, and wind, for example. It is also capable of handling moderate earthquake forces, as is indicated by the lack of significant damage in the March 25 event this year (a few plaster cracks were all that happened.) However, the building is calculated to have inadequate resistance to the sideways forces from potential large earthquakes, especially along the brick walls. The walls and interior frame should eventually be connected with stronger anchors than is now the case. The walls themselves are in good shape except for some remortaring needed at the parapet in some locations.

MCRC Building
page 2

WHAT ACTIONS ARE WE TAKING?

The Board of County Commissioners will be informally briefed on May 11, 1993. Unless they recommend a different course of action, we do not anticipate a comprehensive structural renovation of the Work Release Center at this time.

The building on the whole is not more hazardous than it has been in its prior 70 years. However, we recommend staying inside during an earthquake. The wood frame is much more capable of resisting seismic forces than the brick. The building will eventually be prioritized for upgrade, after other, potentially more-hazardous buildings, have been studied.

The mortar repairs at the parapet will be dealt with as a maintenance requirement as soon as budget is available.

Four more buildings will be evaluated in 1993-4.

If you have questions, please call Jim Emerson at x 3322 or Jean Miley at x 3882.

cc: F. Wayne George
Hank Miggins
Vera Pool
John Schweitzer
Bob Skipper
Tom Slyter

MULTNOMAH COUNTY
RISK MANAGEMENT
106/1430

Date: 6/4/93

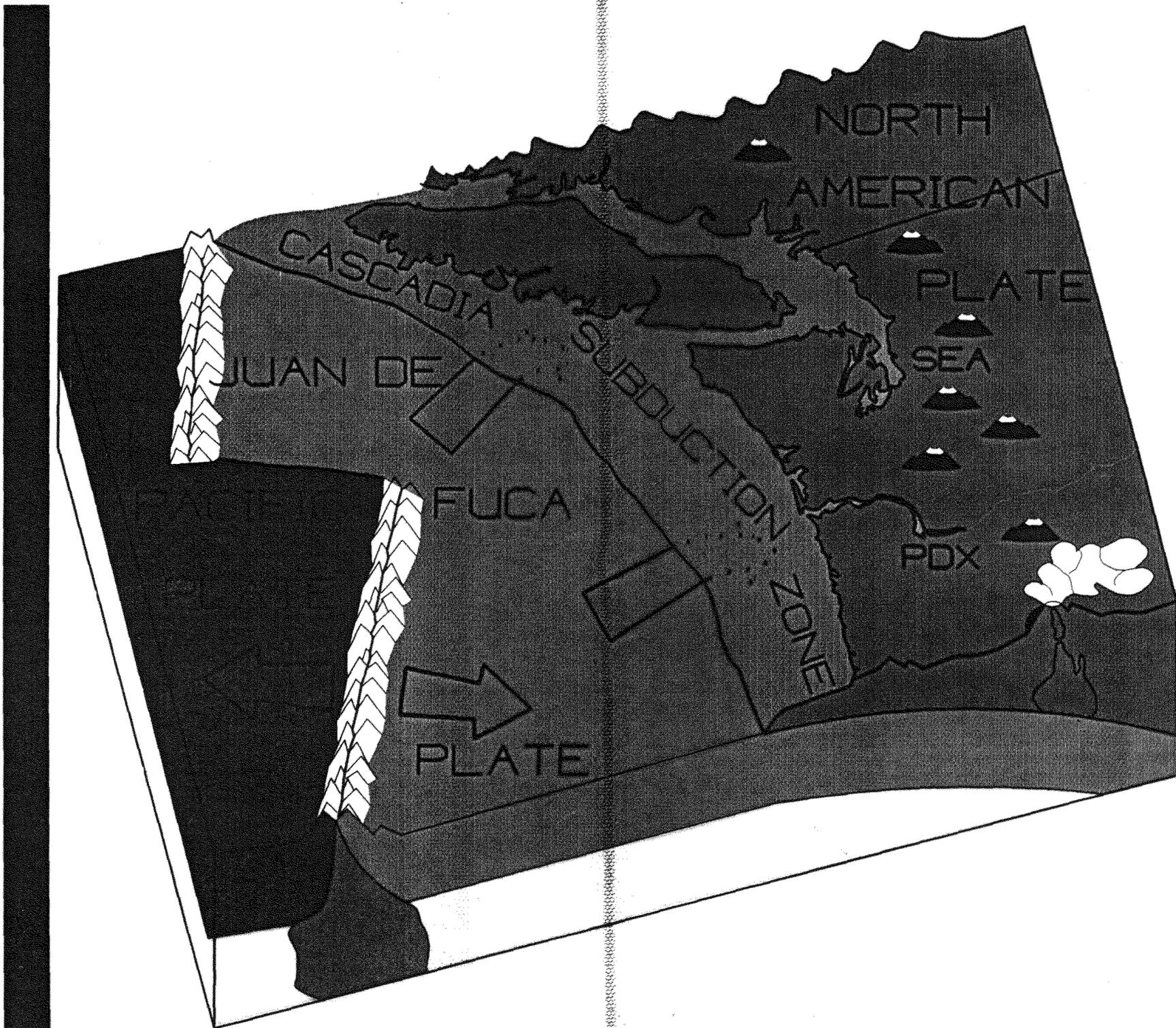
To: Carrie Parkerson

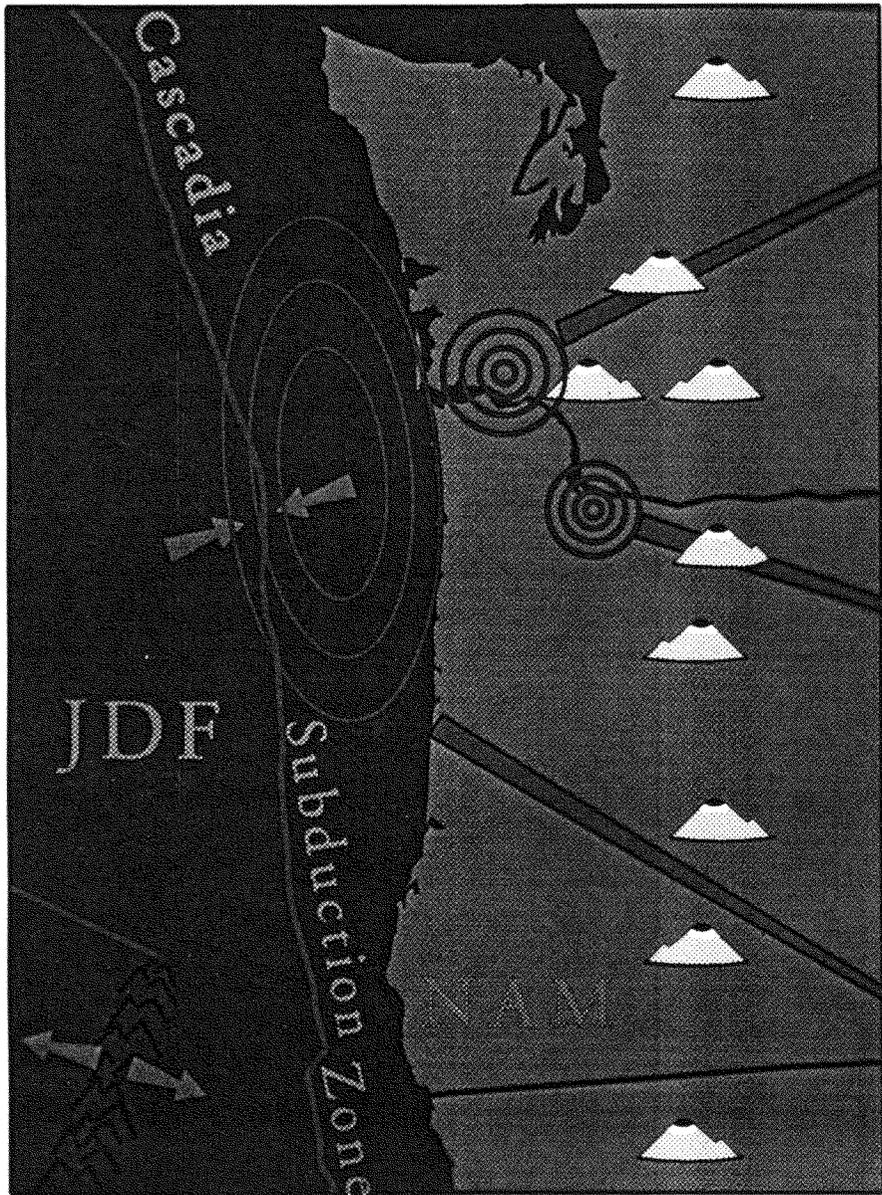
From:

- Jean Miley
 Mary Boyer
 John Meyer
 Helen Smith

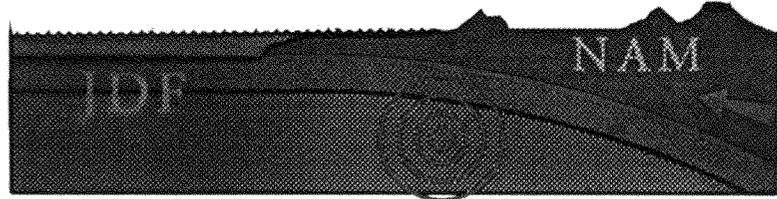
- For your information.
 For your files.
 For your approval.
 As requested.
 Necessary action.
 Please read, initial, and return.
 Please comment: _____
 Reply Appreciated by: _____
 Let's Discuss.

These are copies of the slides from
the 5/11 presentation on earthquakes.
Thank you for the copy of the tape!

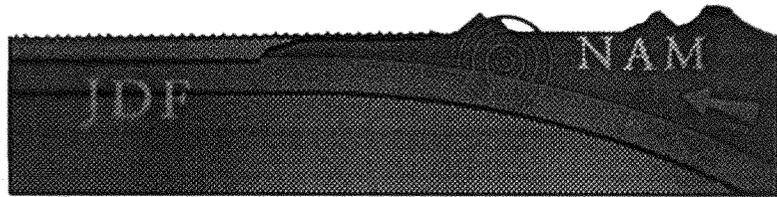




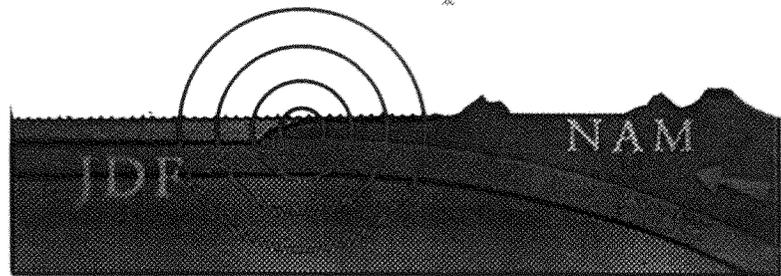
Intraplate Earthquake up to M 7



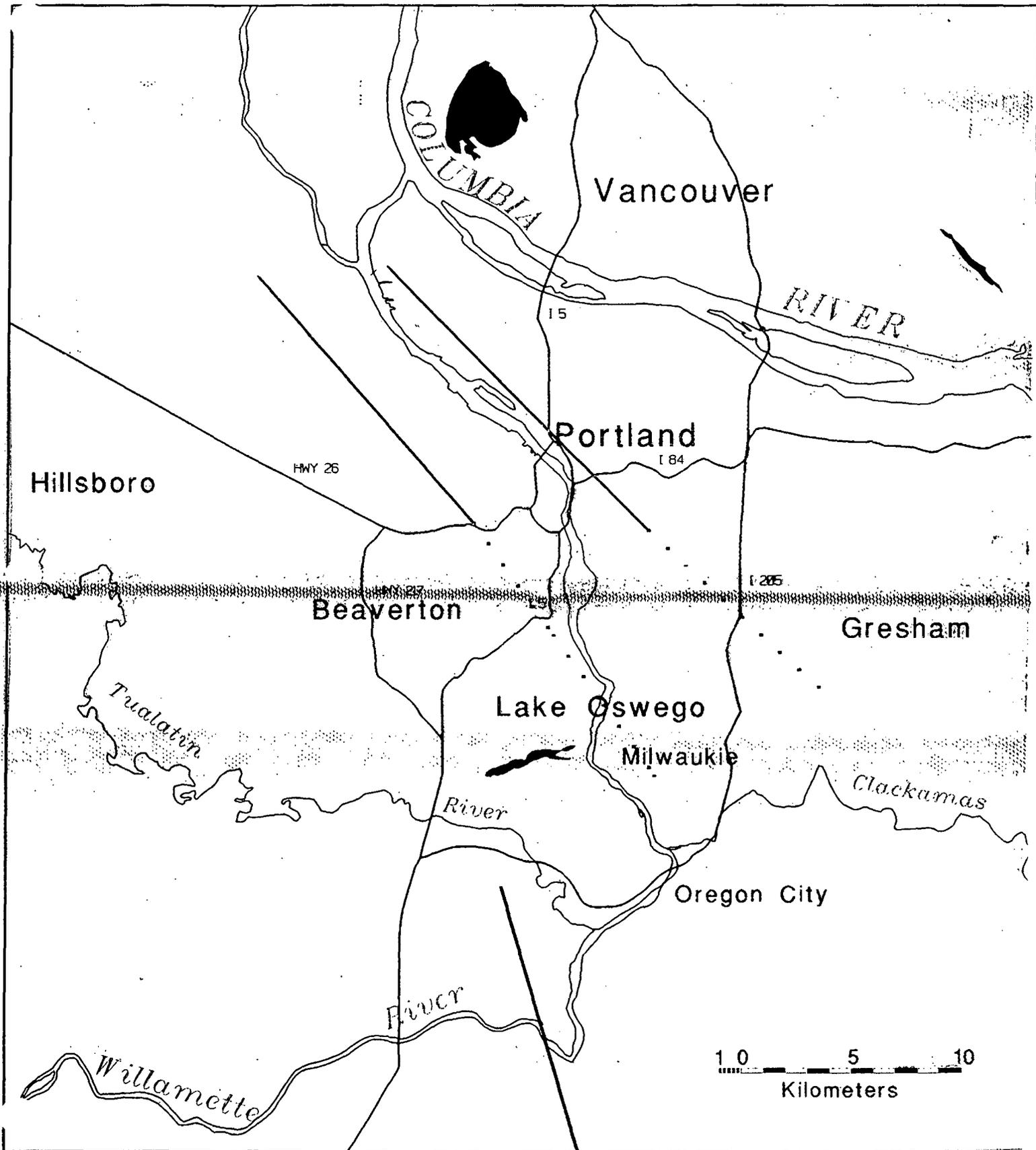
Crustal Earthquake up to M 6.5



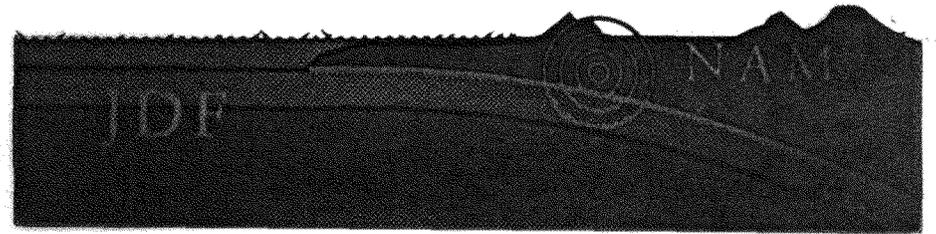
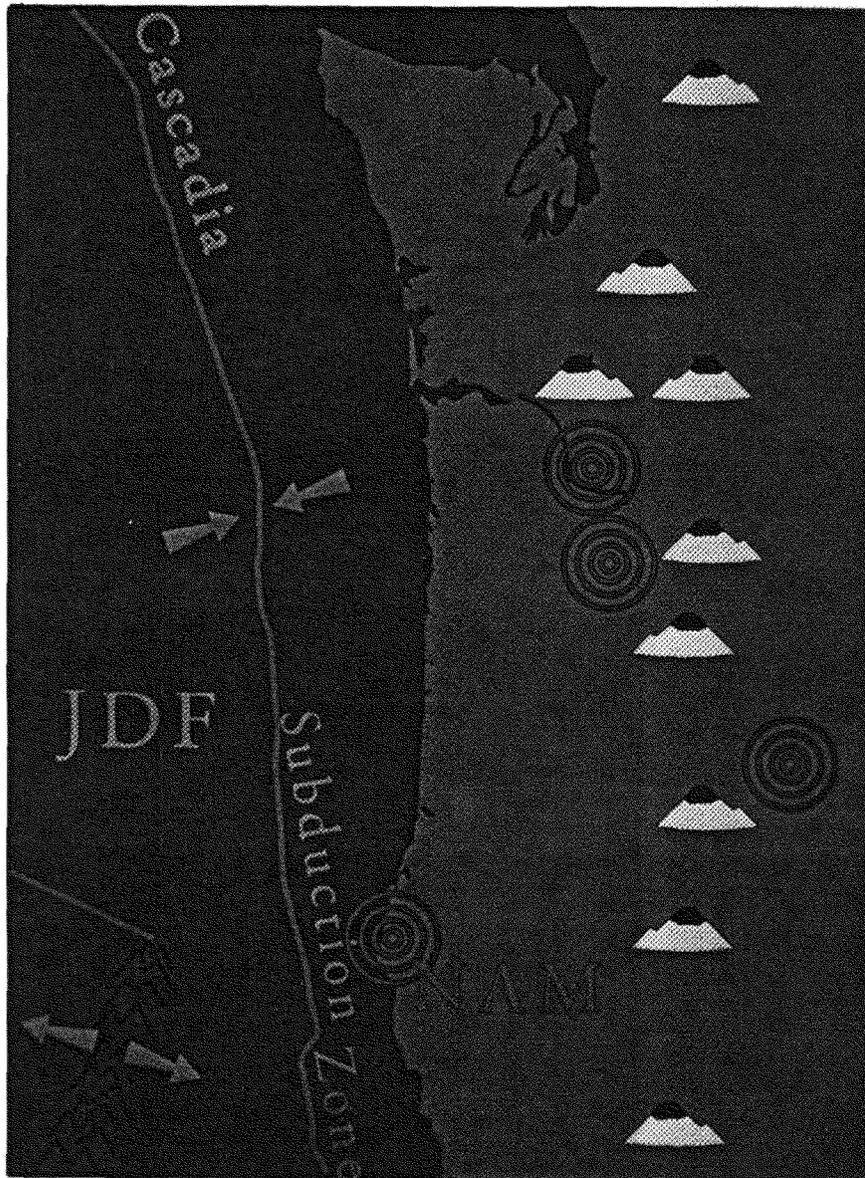
Subduction Earthquake M 8-9?



Earthquake Source Zones in the Pacific Northwest



Crustal Earthquake up to M 6.5



Occur on "active" faults which may or may not be visible at surface.

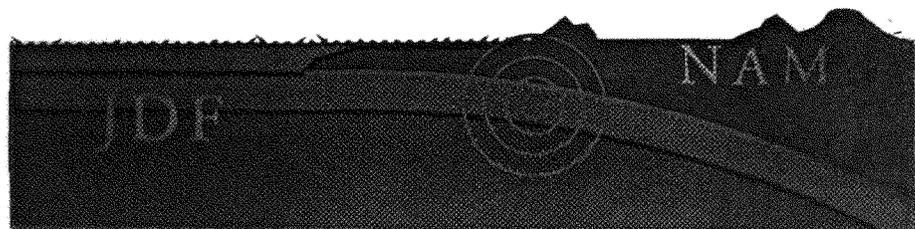
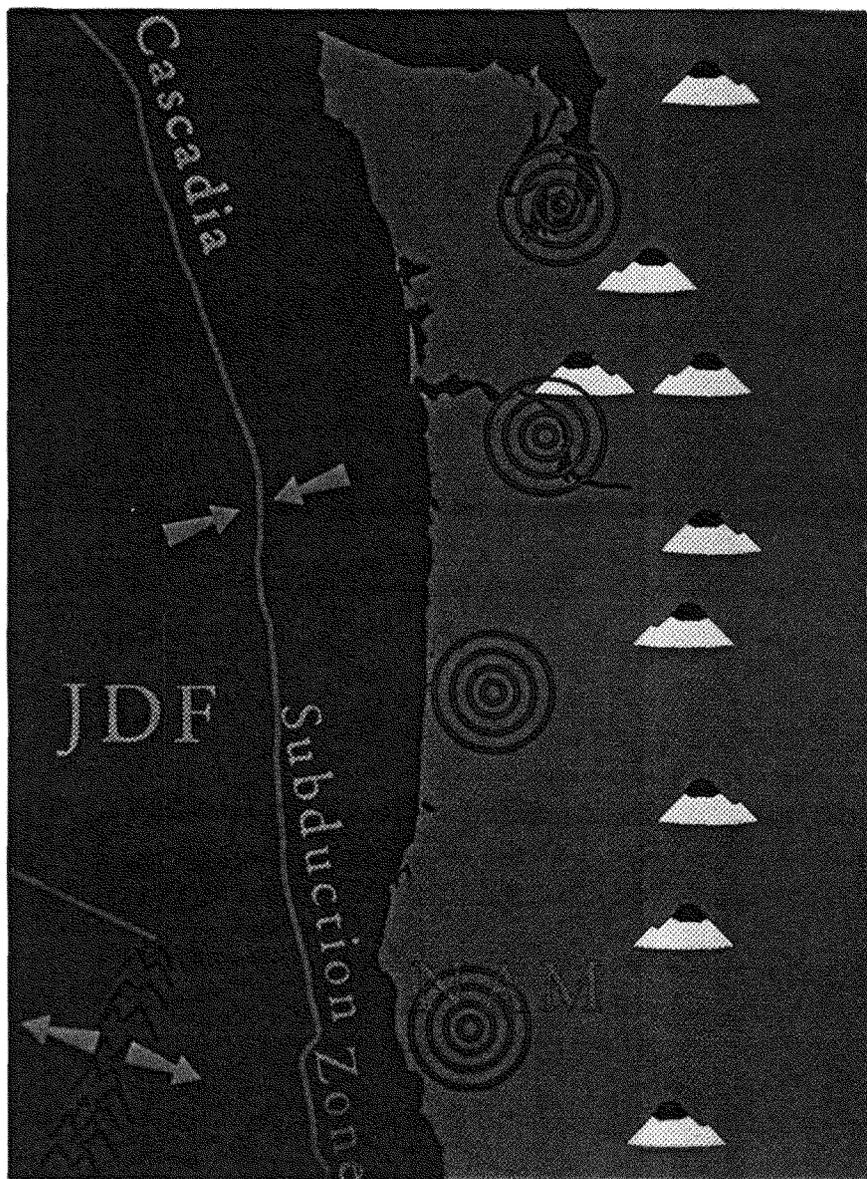
Common in the Portland area, as large as M 5.1 (1962) and M 5.6 (1993).

"Active " faults likely along south coast, numerous in eastern, possibly central Oregon.

May be as large as M 6.5 in western Oregon, possibly as large as M 7 in eastern Oregon.

Short historical record and poor mapping of faults preclude accurate estimates of the threat.

Intraplate Earthquake up to M 7.5



Occur on faults in the Juan de Fuca plate which are never visible at surface.

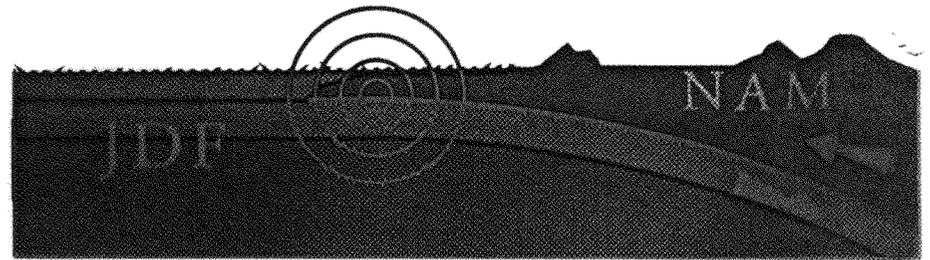
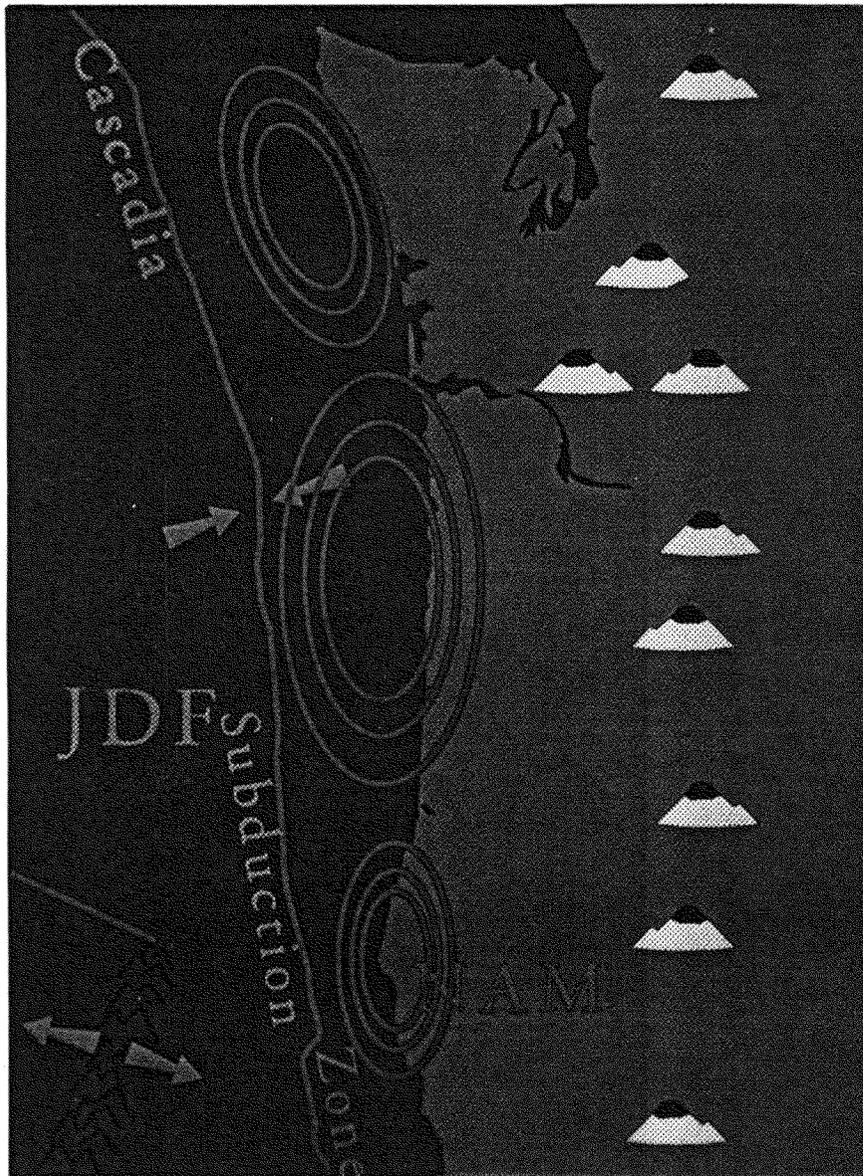
Common in the Puget Sound area, as large as M 7.1 (1949) and M 6.5 (1965).

Since 1970, numerous intraplate events recorded in western Oregon.

Frequency and magnitude unknown in Oregon, but clearly less than in the Puget Sound area.

1873 M 6.7 (?) Port Orford earthquake was probably Oregon's largest intraplate earthquake.

Subduction Earthquake > M 8.0



No historical or instrumental record, but geologic record shows several prehistoric events.

Most recent event probably 300 years ago, average time between events as low as 370 years or greater than 590 years.

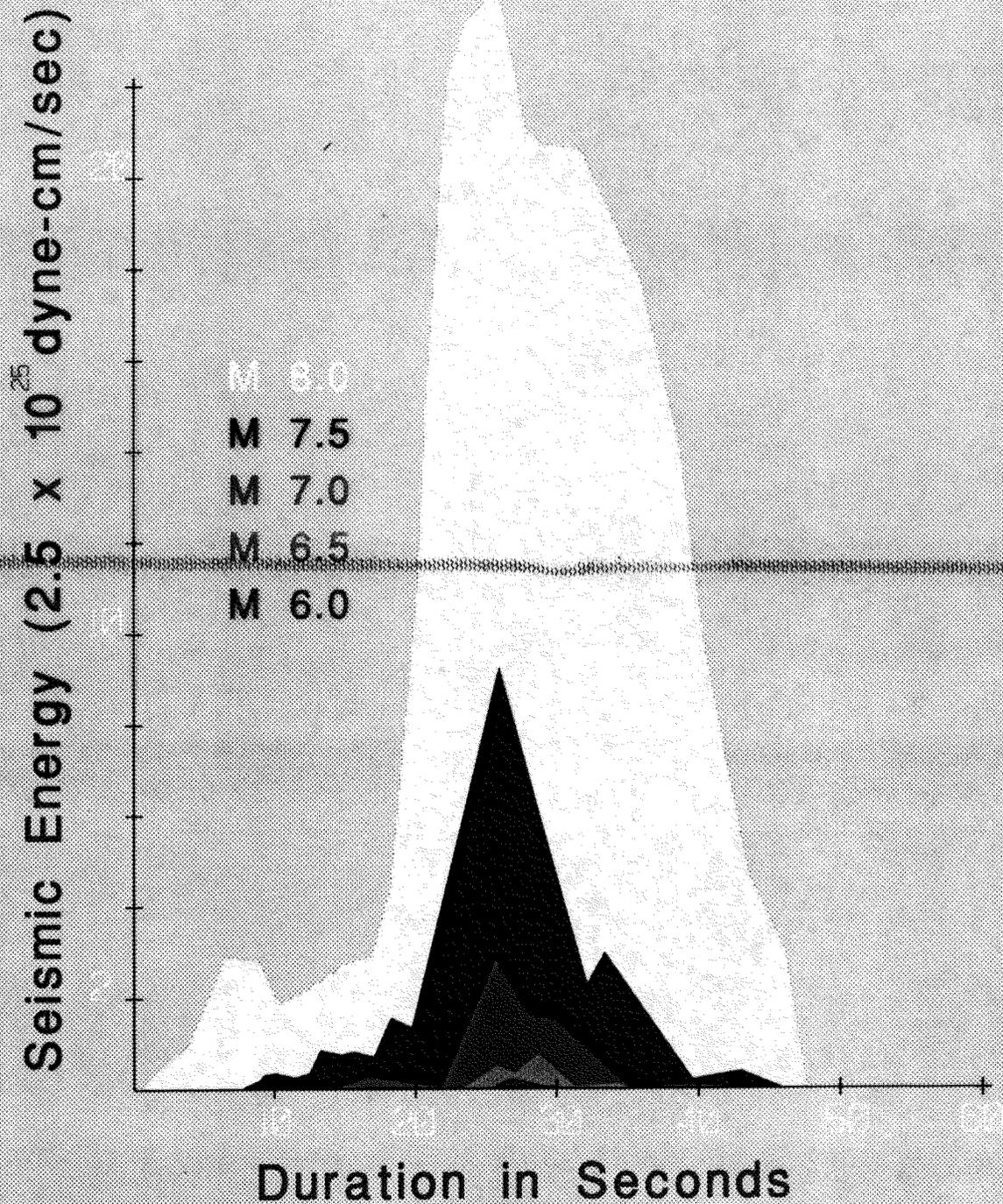
Magnitude varies with length of break, may range from M 8 to M9.

Unusually long duration of shaking.

Almost certainly causes local tsunami which may arrive at coast in minutes.

Occur offshore along the subduction zone.

Comparative Size of Earthquakes

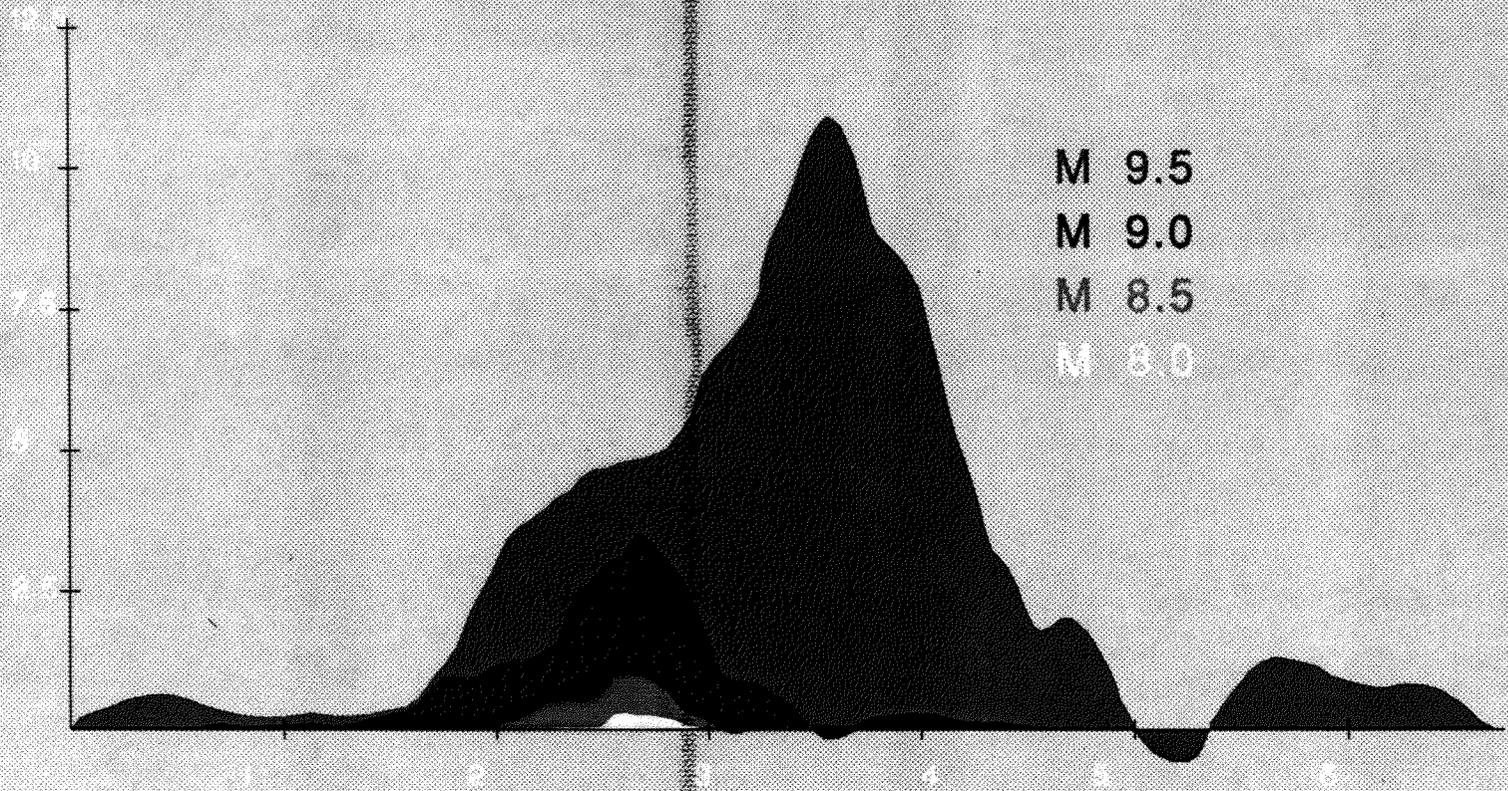


(After Hartzell and Heaton, 1983)

Oregon Department of Geology and Mineral Industries

Comparative Size of Earthquakes

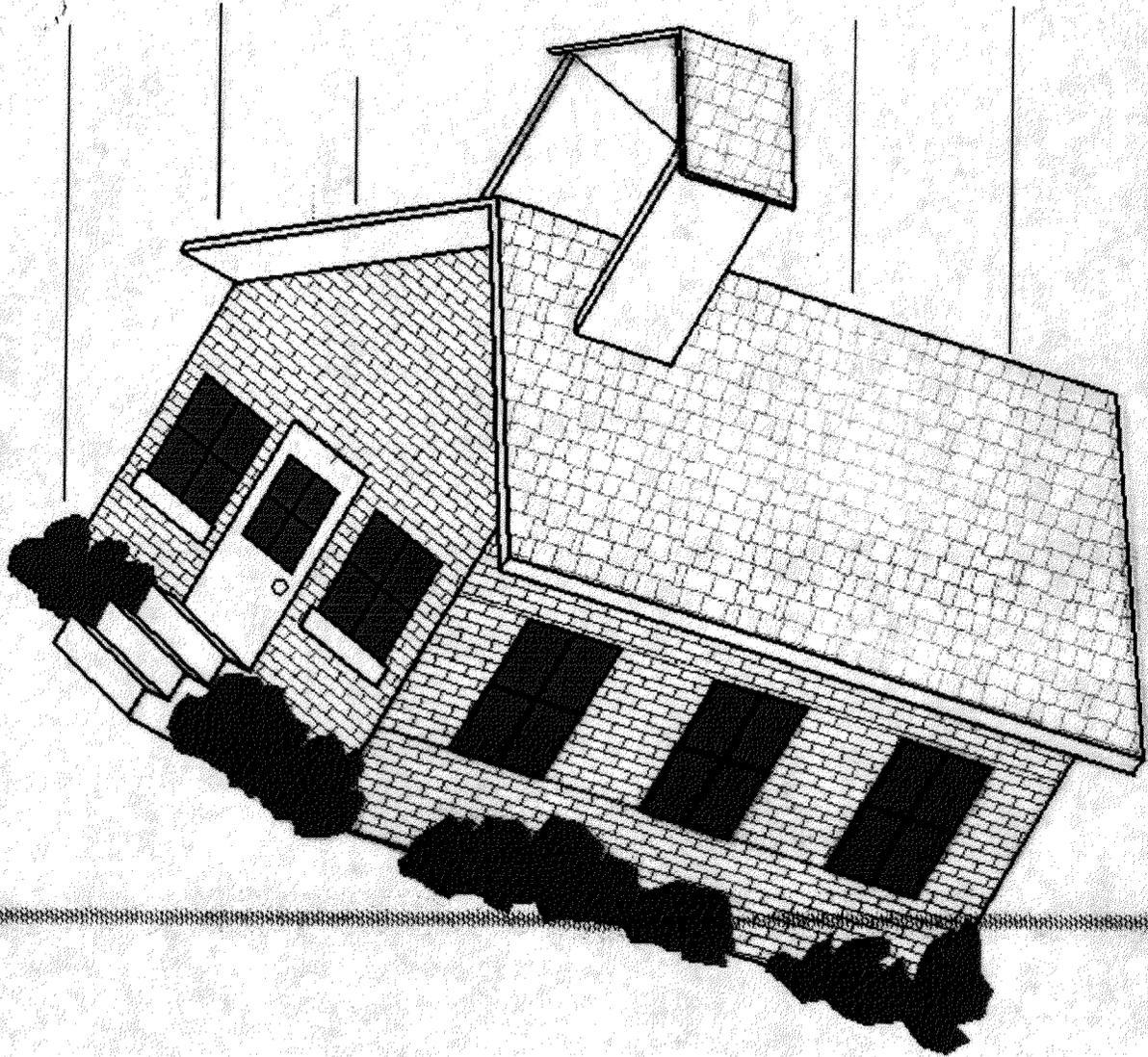
Seismic Energy
(2.5×10^{27} dyne-cm/sec)



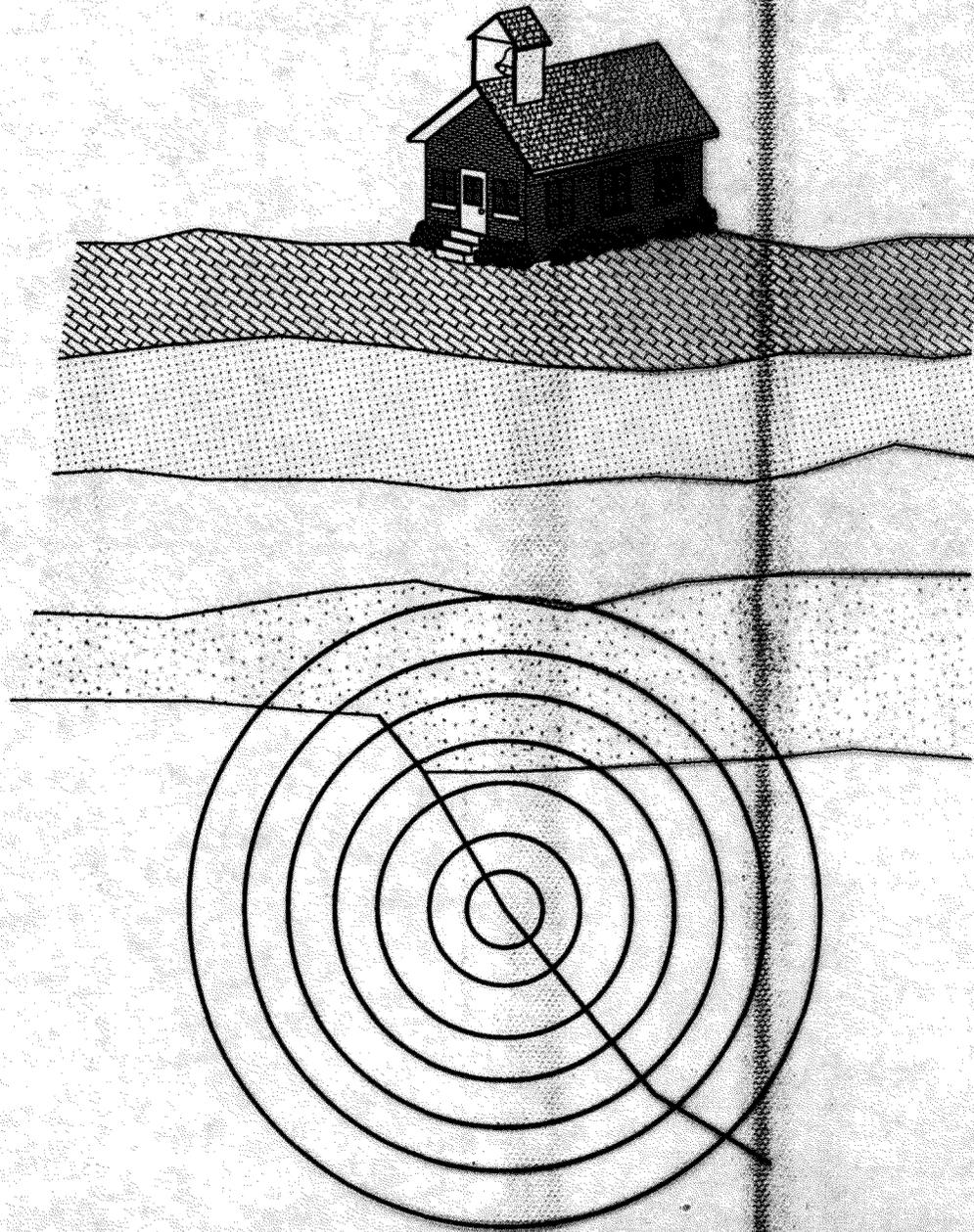
(After Hartzell and Heaton, 1968)

Duration in Minutes

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Factors Controlling Earthquake Damage



Building

Age

Structural Type

Configuration

Site Geology

Thickness

Stiffness/Softness

Water Table

Soil type

Slope

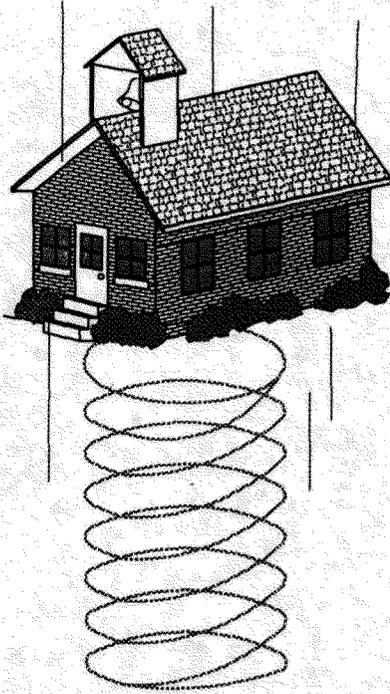
Source

Magnitude

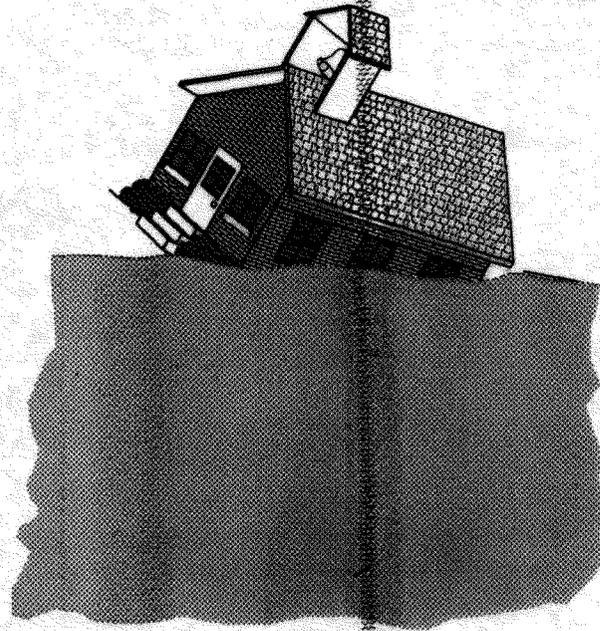
Location

Type

Ways in which site geology enhances earthquake damage



Amplification

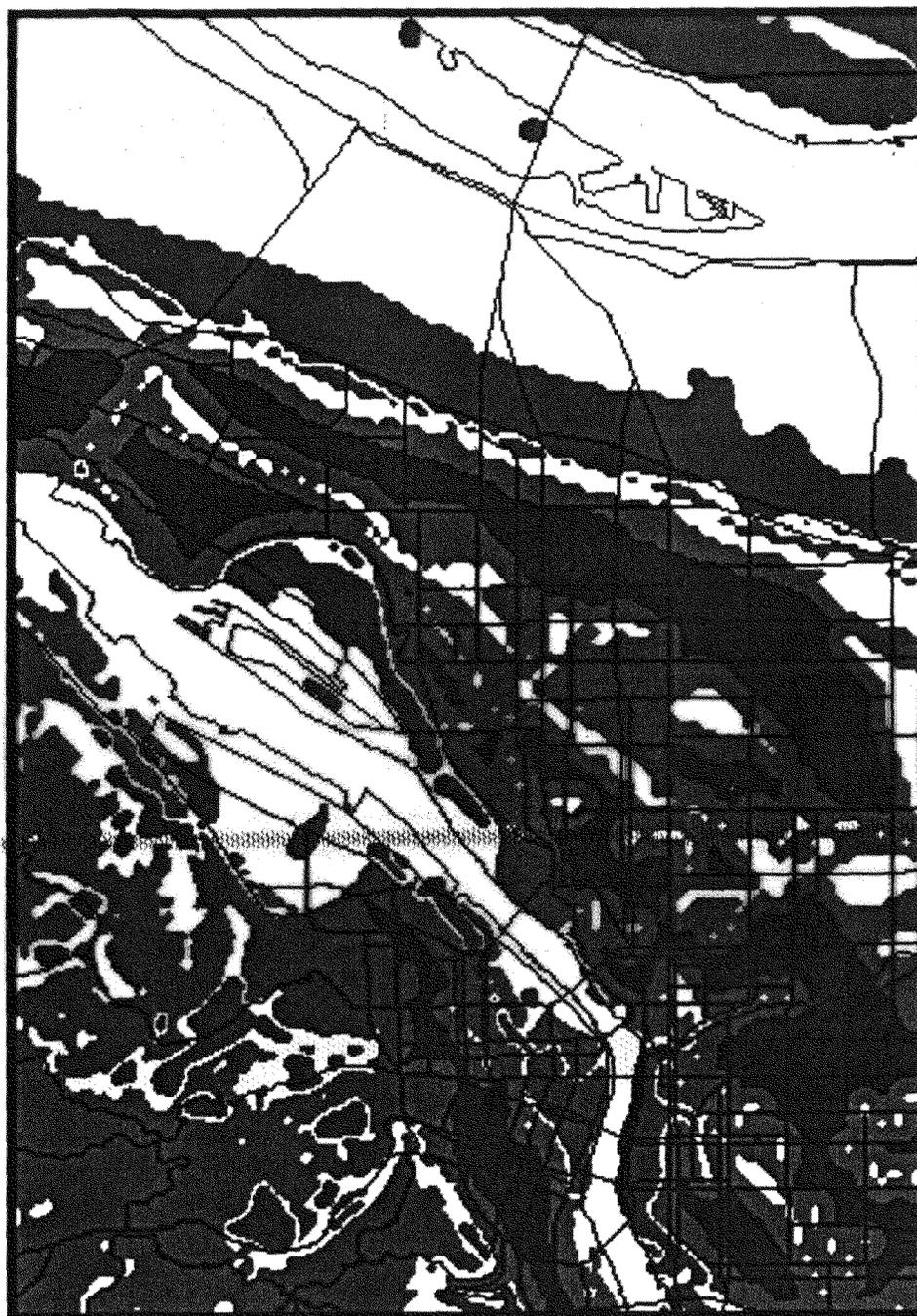


Liquefaction



Landslides

Relative Earthquake Hazard Map



- I ■
- II ■
- III □
- IV ■

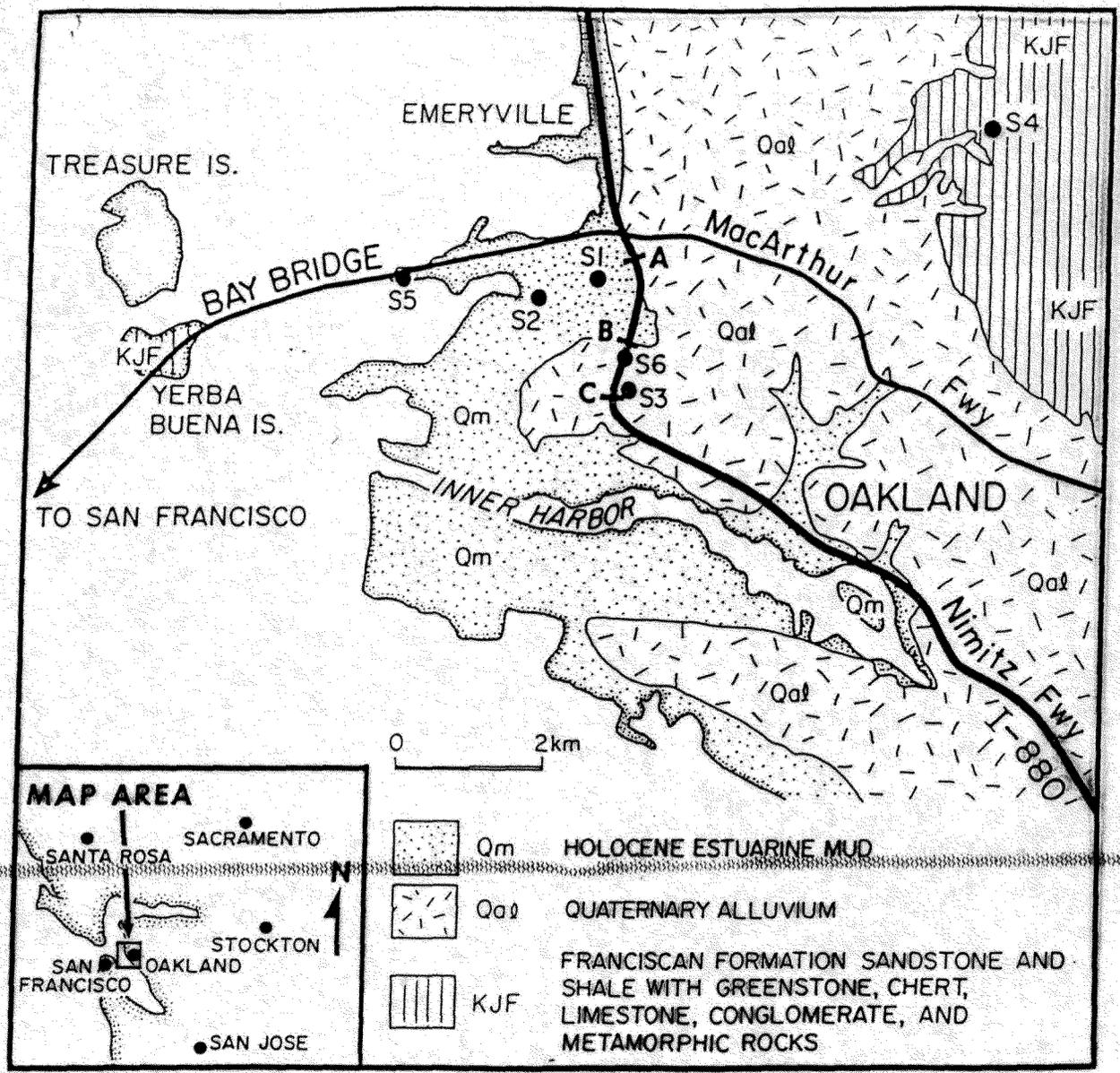
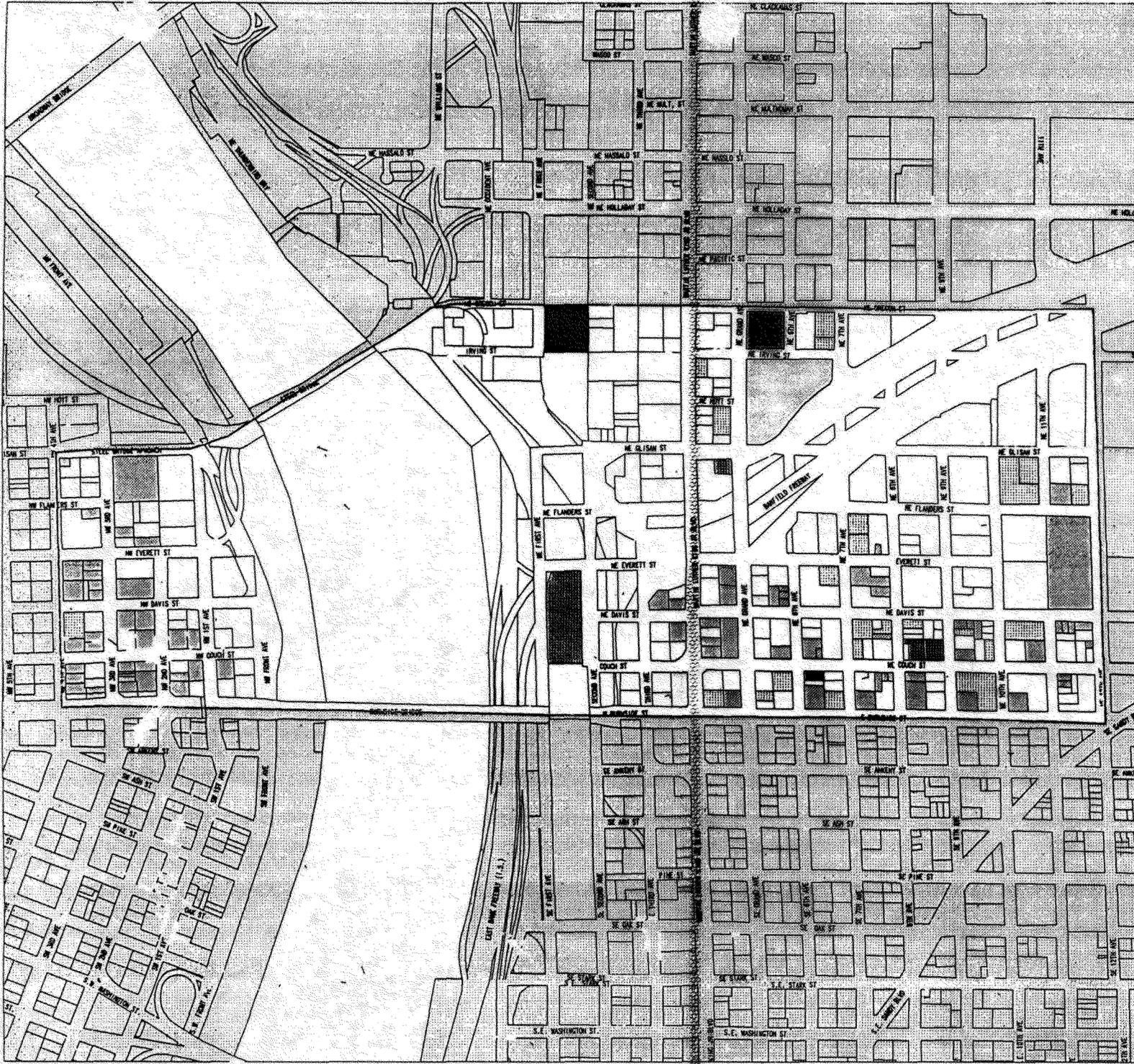


Figure 3.29 Map of Oakland showing near-surface geology (Borcherdt, 1975). Stations S1–S6 are sites occupied during this study. AC indicates the extent of the two-tiered section of the I-880 Freeway known as the Cypress Street Viaduct. AB indicates the segment that collapsed; BC indicates the segment that was damaged but did not collapse

Study Area Building Types

Earthquake Preparedness
Metro/DOGAMI Pilot Project

- C1 C2 C2*
- C3/M-INF C3/S5
- PC1 PC1-TU
- PC2 PC2*
- RM RM*
- S1 S1*
- S2
- S3
- URM URM*
- W

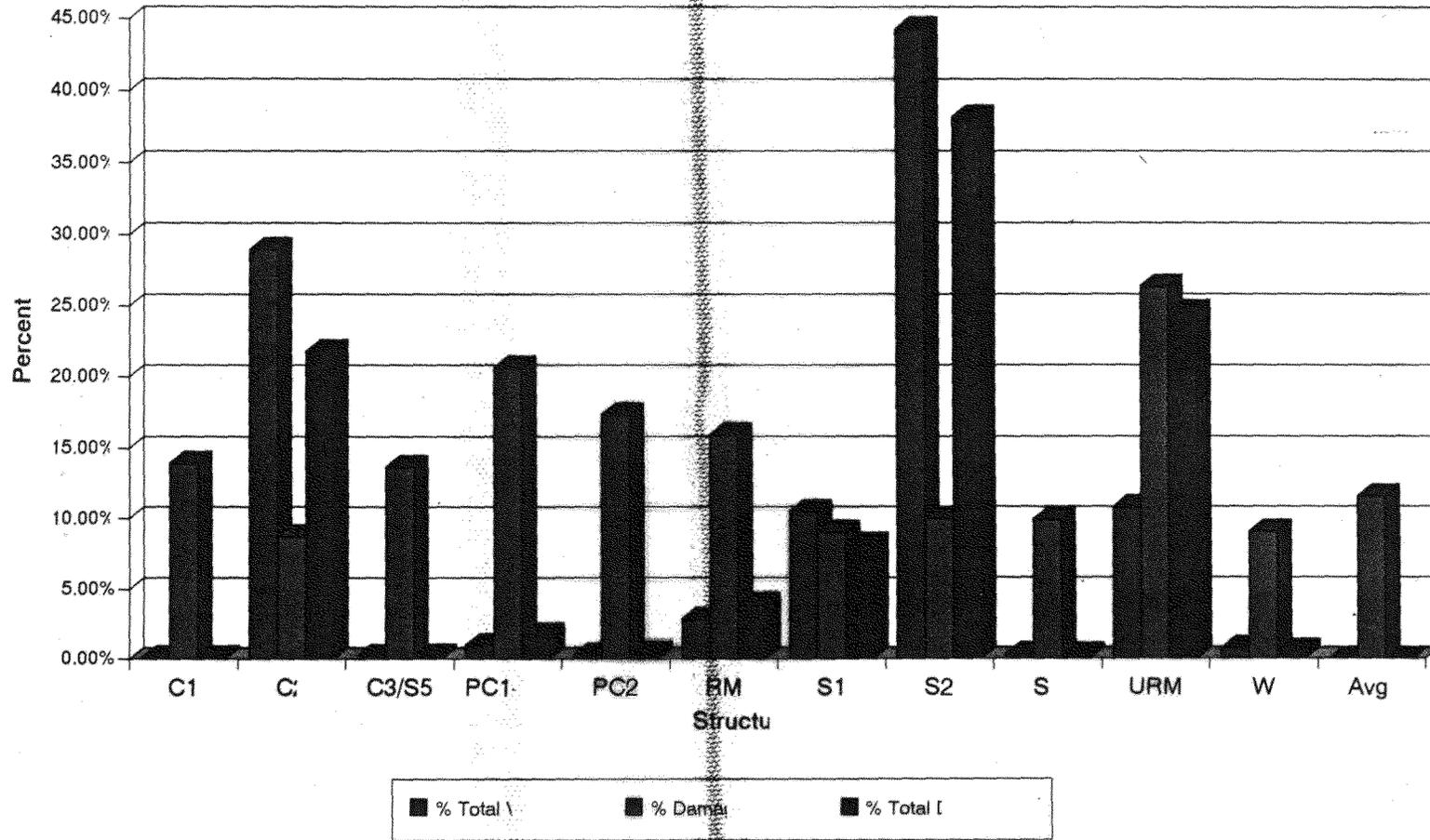


Scale approximately 1 inch = 700 feet

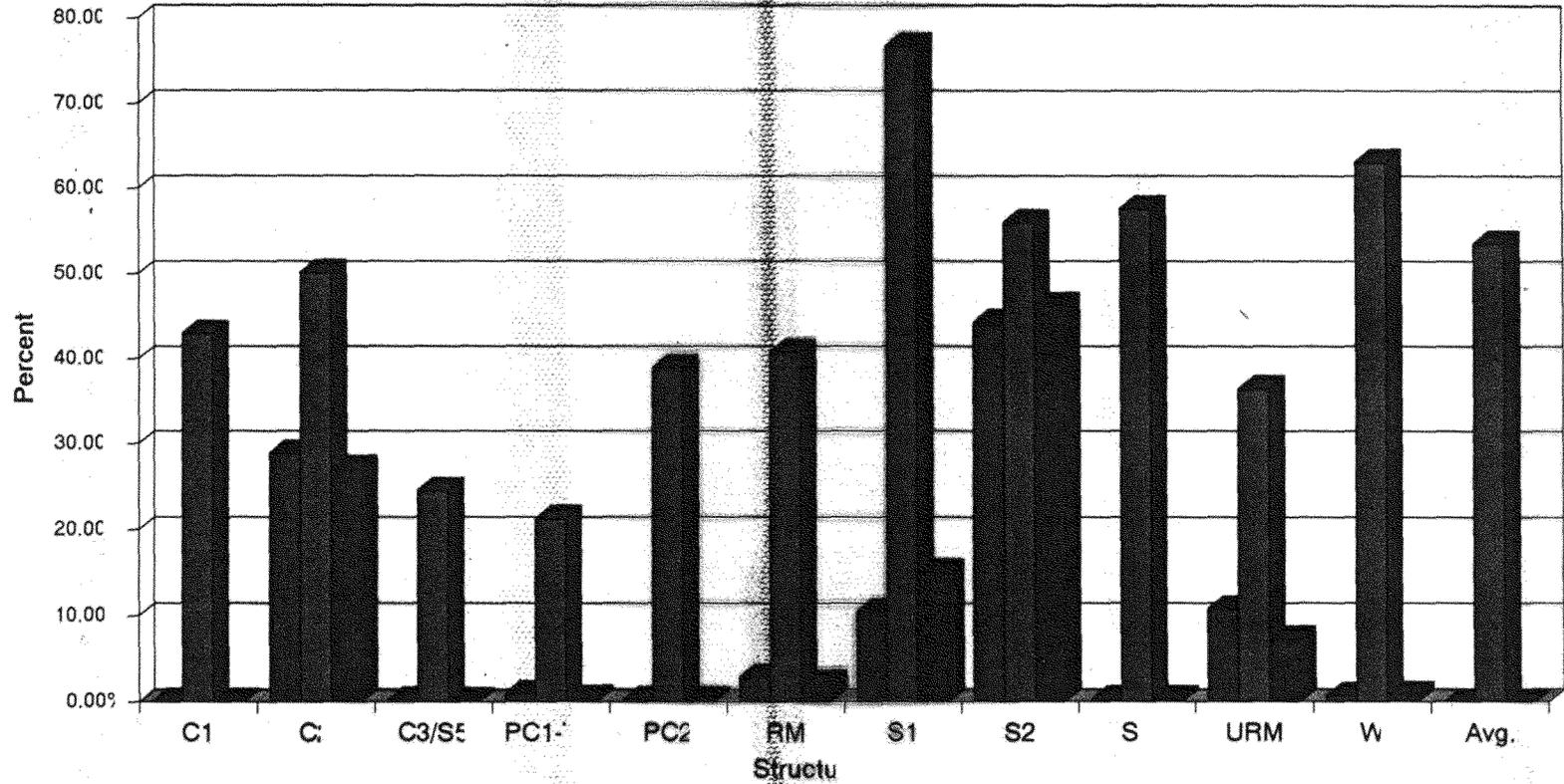
Metropolitan Service District
2000 SW First Avenue
Portland, OR 97201-5398
(503) 221-1646

METRO

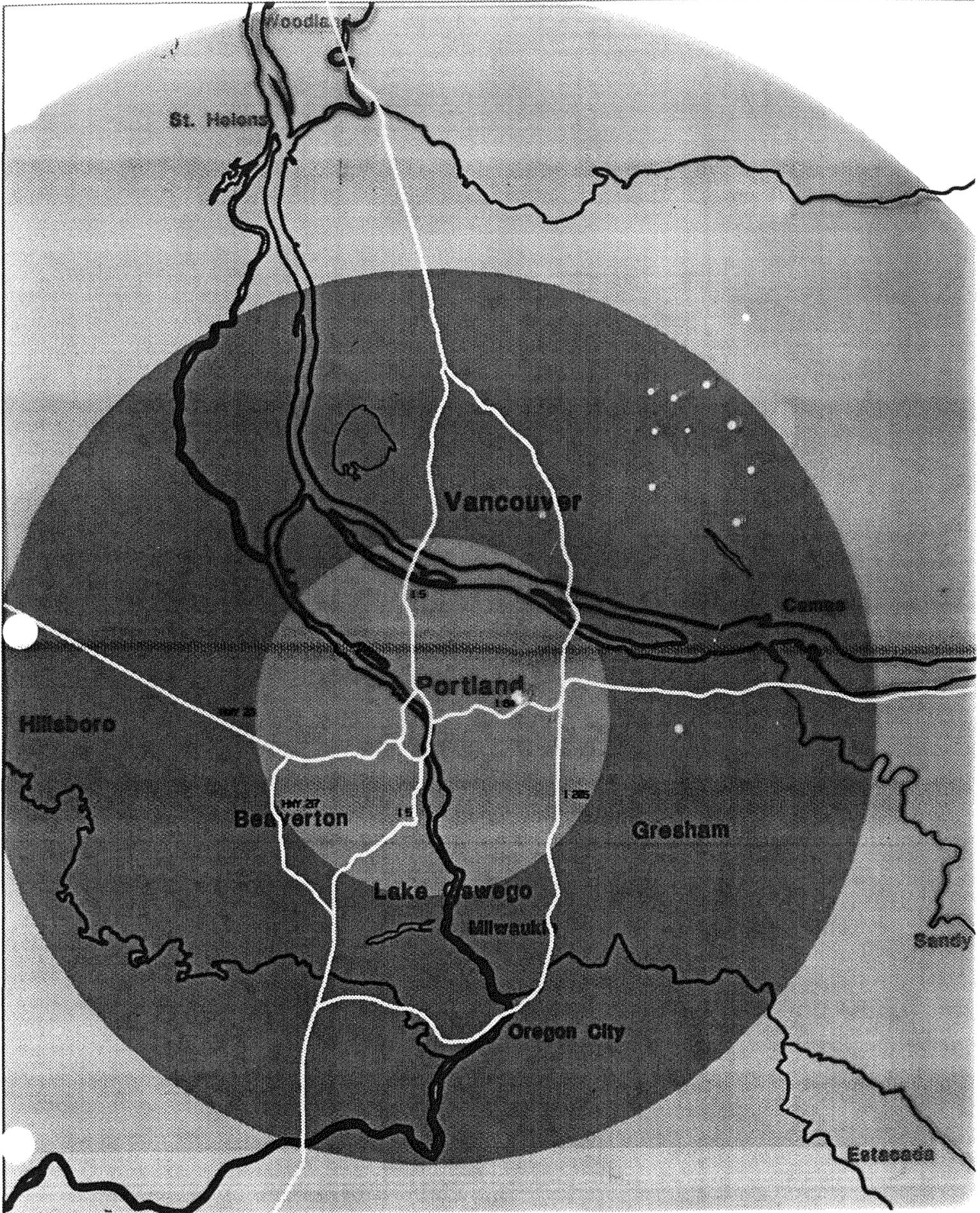
Building Damage

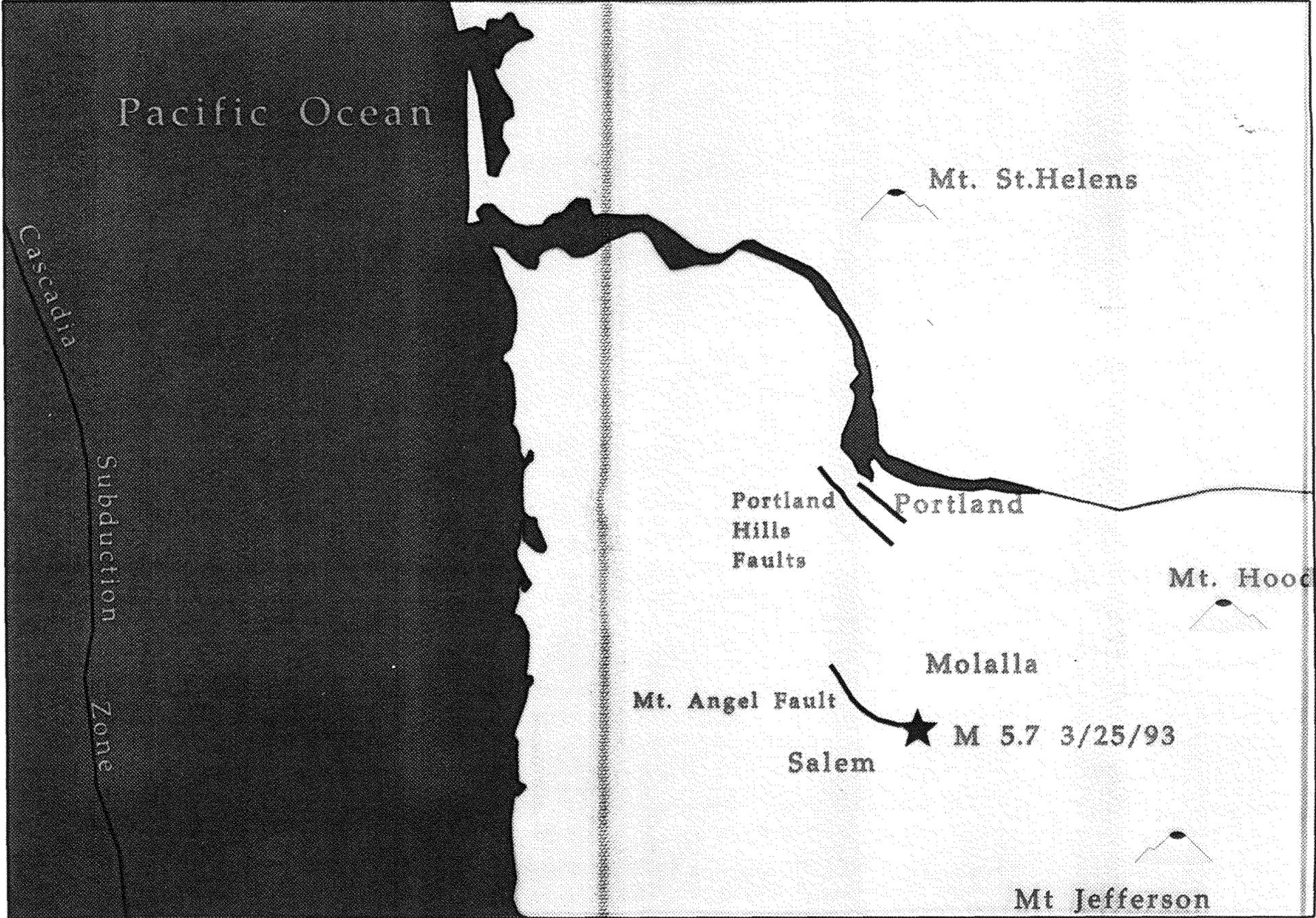


Building Availability

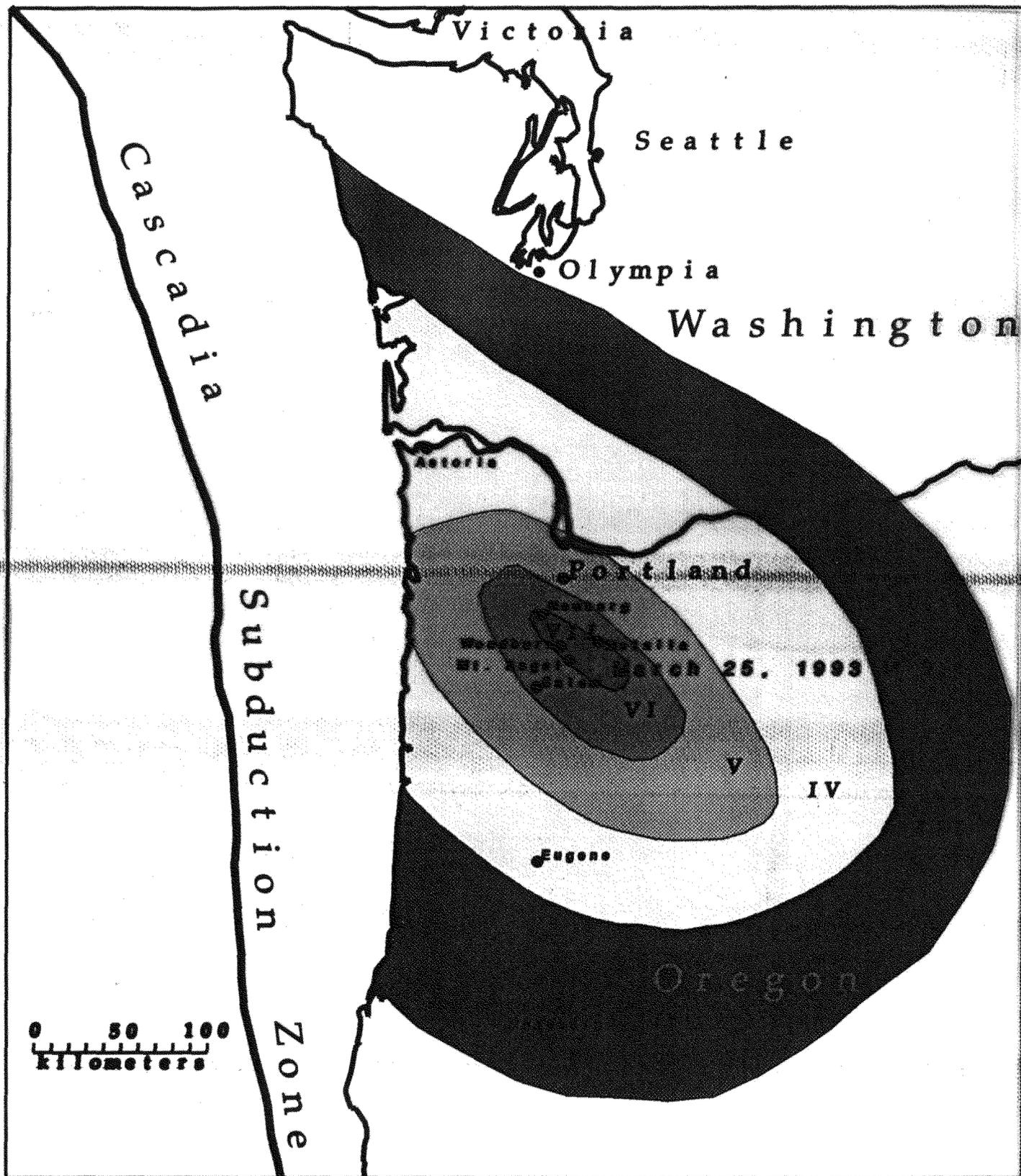


% Total
 % Availal
 % Total /

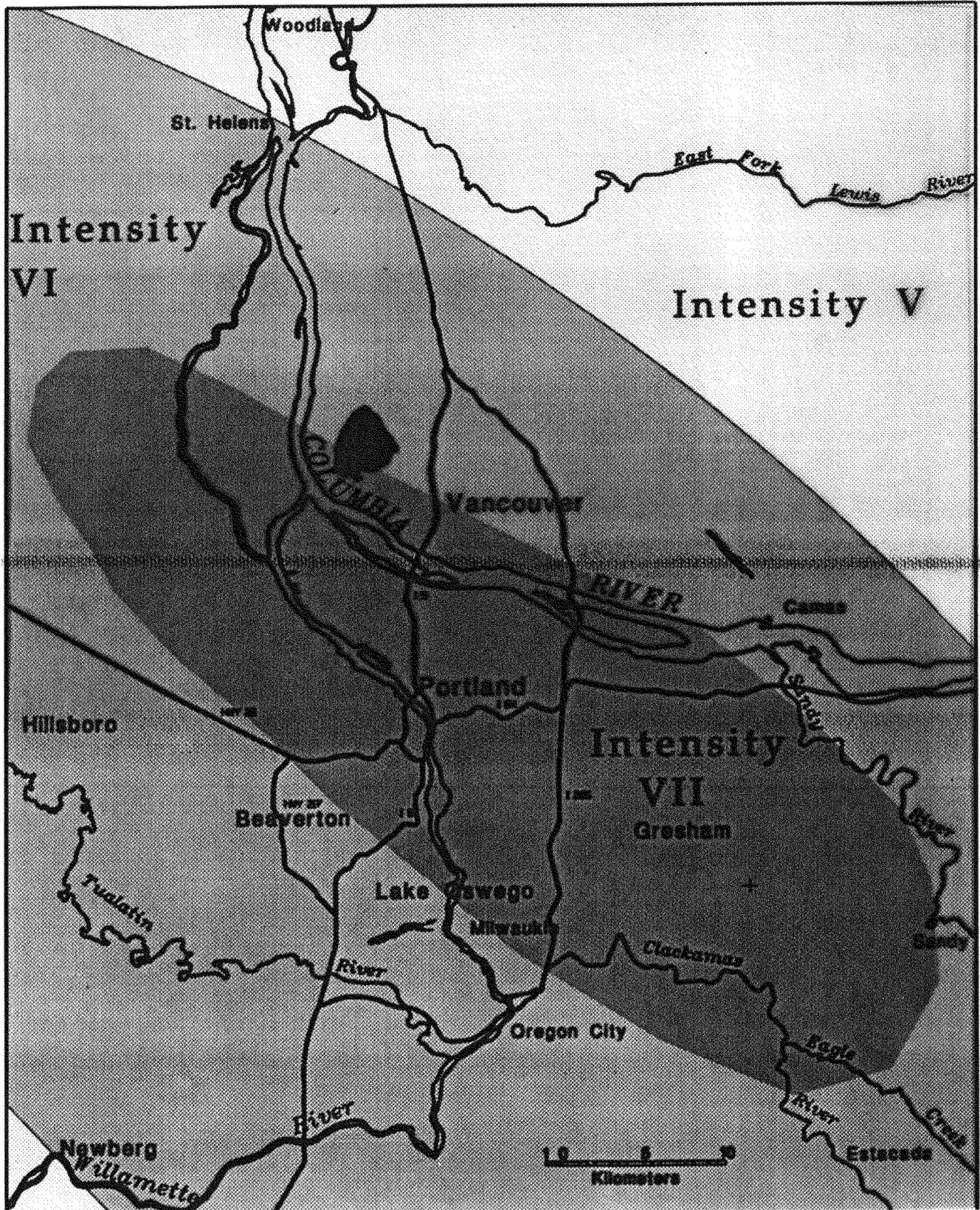




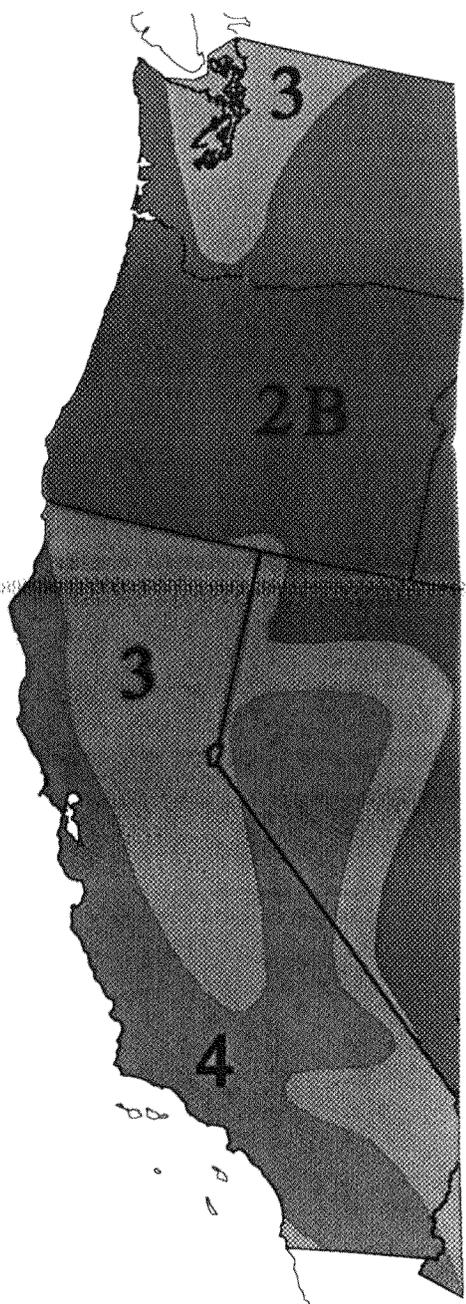
Preliminary Modified Mercalli Intensity map
for the Scotts Mills, Oregon Earthquake
of March 25, 1993.



Preliminary Modified Mercalli Intensity Map
for the M 5.6 Scotts Mills Earthquake
of March 25, 1993 superimposed on the
Portland Metropolitan Area.

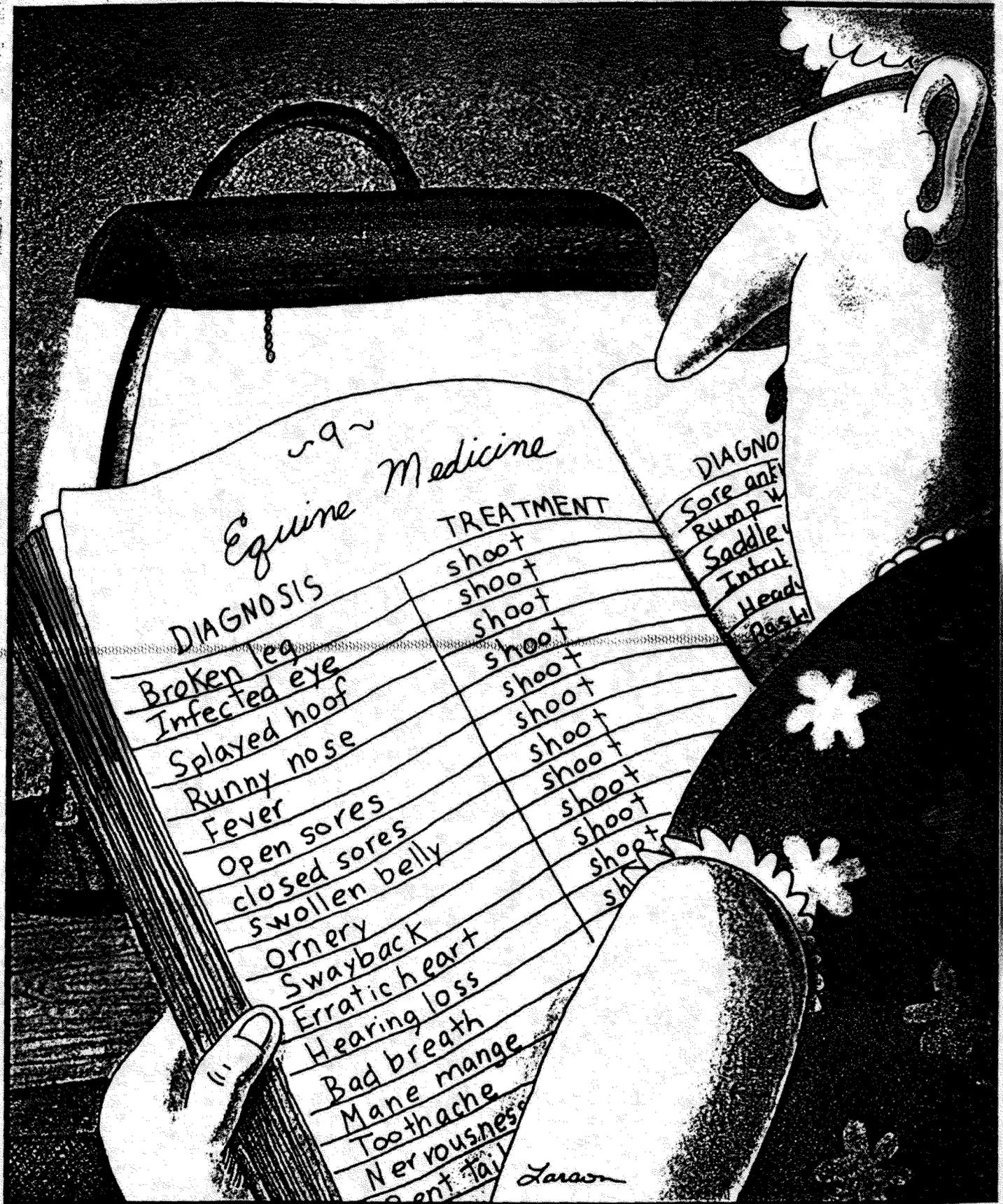


UBC Zones Prior to 1993



UBC Zones After 1993





Like most veterinary students, Doreen breezes through Chapter 9.



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