CITY OF

PORTLAND, OREGON

OFFICE OF PUBLIC SAFETY

Randy Leonard, Commissioner
1221 S.W. 4th Avenue, Room 210
Portland, Oregon 97204
Telephone: (503) 823-4682
Fax: (503) 823-4019
randy@ci.portland.or.us

October 27, 2010

To: Mayor Sam Adams
Office of the Mayor

From: Randy Leonard
Commissioner of Public Safety

Subject: Re-appointments to the Structural Engineering Advisory Board

Re-appointments

The following Structural Engineering Advisory Board members and alternate terms expired August 31, 2008:

David Bugni, Joseph Gehlen, Timothy Rippey, and Christopher Thompson.

I am recommending all four previous members for re-appointment for 3-year terms from September 1, 2008 through August 31, 2011. David Bugni and Timothy Rippey will switch positions with David serving in an alternate position and Timothy in a member position.

With these appointments, the Structural Engineering Advisory Board has two vacancies. The Bureau of Development Services will conduct a recruitment to fill these two vacancies. I have enclosed an updated Structural Engineering Advisory Board membership list for your records.

Enclosure

Structural Engineering Advisory Committee:

The Structural Engineering Advisory Committee is appointed by the Mayor and consists of three members and three alternates licensed in Oregon to practice structural engineering. Members shall serve 3-year terms and may be appointed to consecutive terms. In addition, the Director, or designee, shall be an ex-officio member of the board.

This board advises the Director and/or the Appeals Board in structural matters relative to reasonable interpretation and to alternate materials and methods of construction.

Current members of the Committee are:

Name	Membership Category	Term Expires
Members		
Joseph Gehlen	Member	August 31, 2011
Timothy Rippey	Member	August 31, 2011
Chris Thompson	Member	August 31, 2011
Alternates		
Dave Bugni	Alternate	August 31, 2011
Vacant	Alternate	August 31, 2008
Vacant	Alternate	August 31, 2008

Primary Staff Contact to the Committee: Amit Kumar, 503-823-7561

Office of the Director
City of Portland, Oregon - Bureau of Development Services
1900 SW 4th Avenue, Suite 5000 • Portland, Oregon 97201
503-823-7308 • Fax 503-823-7250 • TTY 503-823-6868 • www.portlandonline.com/bds

October 27, 2010

To: Randy Leonard
Commissioner of Public Safety

From: Paul L. Scarlett, Director PLS
Bureau of Development Services

Subject: Re-appointments to the Structural Engineering Advisory Board

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Vacant	Alternate	August 31, 2008

Primary Staff Contact to the Committee: Amit Kumar, 503-823-7561

Interest Form for City Board & Commission Appointments

The purpose of this form is to obtain information for use in making appointments to City boards, commissions, and committees, and to assist the Mayor in making inquiries concerning the qualifications of applicants for appointment. Please note that information provided in this document ***is public information,*** *with the exception of the confidential section. (Information in the confidential section will only be disclosed as required by law.) If you have a recently prepared biography or resumé, please attach it to this form. Thank you for your interest.*

Please return application, resumé and any additional information to:
Office of Neighborhood Involvement, 1221 SW 4th Ave, Room 110, Portland, Or 97204

To help ensure equal access to City programs, services and activities, the City of Portland will reasonably modify policies/procedures and provide auxiliary aids/services to persons with disabilities. Call 503-823-2030 or 503-823-4000 with such requests.

Name: David *First* A. *Middle Initial* Bugni *Last*
Mailing Address: 30265 SE Kowall Rd., Estacada, OR 97023

Occupation: Structural Engineer

Daytime Phone: 503-630-3506 Email: dbugni@cascadeaccess.com

Biography/Resumé Attached? ☒ Yes ☐ No

CHECK UP TO THREE (3) GROUPS YOU ARE INTERESTED IN (descriptions are online):

- ☐ Adjustment Committee
- ☐ Alternative Technology Adv Com
- ☐ Building Code Board of Appeal
- ☐ Business License Appeals Board
- ☐ Citizen Campaign Committee
- ☐ Civil Service Board
- ☐ Community Budget Advisory Board
- ☐ Design Commission
- ☐ Development Review Advisory Com
- ☐ Elders in Action
- ☐ Electrical Code Board of Appeals
- ☐ Fire Code Board of Appeal
- ☐ Floating Structures Board of Appeal
- ☐ Golf Advisory Committee
- ☐ Historic Landmarks Commission
- ☐ Housing & Community Develop Com
- ☐ Housing Authority of Portland
- ☐ Human Rights Commission
- ☐ Independent Police - Citizen Review Com
- ☐ Investment Advisory Committee
- ☐ Mechanical Code Board of Appeal
- ☐ Metro Exposition Recreation Commission
- ☐ Mt. Hood Cable Regulatory Comm
- ☐ Noise Review Board
- ☐ Plumbing Code Board of Appeal
- ☐ Portland Community Media
- ☐ Portland Development Commission
- ☐ Portland/Multnomah Food Policy Council
- ☐ Portland Parks Board
- ☐ Portland Planning & Sustainability Com
- ☐ Portland Utility Review Board
- ☐ Private-for-Hire Board of Review
- ☐ Public Involvement Advisory Council
- ☐ Purchasing Board of Appeals
- ☐ Regional Arts & Culture Council
- ☐ River Community Advisory Committee
- ☐ Small Business Advisory Council
- ☒ Structural Engineering Adv Board
- ☐ Time, Place, Manner Adv. Committee
- ☐ Towing Board of Review
- ☐ Urban Forestry Commission
- ☐ Workforce Investment Board
- ☐ Children's Investm. Fund Alloc Com
- ☐

List education, including degree(s) earned:
BS Civil Engineering, Oregon State University
MS Structural Engineering & Mechanics, University of California, Berkeley

1st Choice:
Name of Board/Commission/Committee: Structural Engineering Advisory Board

A. Reasons for wanting to serve on this group:
I have had the privilege to serve on this board since 1996. It is a very worthwhile experience to help the City of Portland address some difficult structural engineering issues that they may confront from time to time.

B. List skills or knowledge that would be relevant to this Board/Commission:
I have practiced in the field of structural engineering since 1984. I am past president of the Structural Engineers Association of Oregon and am a member of several professional engineering organizations.

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to)	Employer or Volunteer Activity	Responsibilities
1996-present	David Bugni & Associates	Structural Engineer

2nd Choice:
Name of Board/Commission/Committee: None

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission:

Dates (from/to)	Employer or Volunteer Activity	Responsibilities

3rd Choice:
Name of Board/Commission/Committee: None

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to) Employer or Volunteer Activity Responsibilities

List your experience working on diverse teams or committees:
I have been a member of a number of local government groups including:

1. Estacada School District School Board, 1999-2005, Chairman (2002 – 2005)
2. City of Portland Seismic Rehabilitation Task Force, 2003-2004
3. State of Oregon Seismic Task Force, 1995-1997
4. Clackamas County Commissioners Five Member Task Force 2007.

Describe your understanding of the services the City of Portland provides:
Being a major city in the United States, Portland provides a diverse array of services ranging from building and transportation-related to housings, parks and other human services.

My signature affirms that all information contained herein is true to the best of my knowledge, and that I understand that any misstatement of fact or misrepresentation of credentials may result in this application being disqualified from further consideration.

Signature: [signature] **Date:** 9/23/10

Please note this optional information **must** remain on a separate page from the rest of the application.

OPTIONAL INFORMATION

The City asks that you voluntarily provide the following information. The City will use this information for statistical purposes, such as tracking the geographical diversity of board and commission appointees. By providing this information, you will help us ensure that appointments represent a broad cross-section of the community. You are under no legal obligation to provide this information. State and federal law prohibit the use of this information to discriminate against you. The City will treat this information as confidential to the fullest extent allowed by law.

Age:	☐ **Under 18**	☒ **18-64**	☐ **65+**
Race:	☐ **African-American** ☐ **Hispanic**	☐ **Asian** ☐ **Native American**	☒ **Caucasian**
Gender:	☐ **Female**	☒ **Male**	
Disability:	☒ **No**	☐ **Yes**	

If yes, please specify: _____

DAVID BUGNI, P.E., S.E.

30265 S.E. Kowall Road
Estacada, OR 97023

(503) 630-3506
Fax: (503) 630-3507

CURRICULUM VITAE

Education

B.S., Civil Engineering—Oregon State University, Corvallis, Oregon 1983
M.S., Structural Engineering/Structural Mechanics—University of California, Berkeley, California, 1984

Registration

Structural Engineer—Oregon, Arizona
Structural/Civil Engineer—California, Washington

Appointments

State of Oregon Seismic Task Force (Senate Bill 1057) 1995-1997
City of Portland Bureau of Buildings Structural Advisory Board, 1996 –
City of Portland Rehabilitation Code Task Force, 2003 - 2004

Teaching Position

Lecturer in Structural Dynamics and Earthquake Engineering, Department of Civil Engineering Graduate School, Portland State University, 1990 - 1998

Publications

"The Klamath Falls, Oregon Earthquake of September 20, 1993." *EERI Newsletter* (November 1993): vol. 27, no. 1, Earthquake Engineering Research Institute.
"Seismic Rehabilitation of Existing Buildings in Oregon" *Proceedings of the American Society of Civil Engineers*, Structures Congress XV. 1997.
"A Linear Elastic Dynamic Analysis of a Timber-framed Structure" *ICBO Building Standards*, May-June 1999.

Lectures

Seismic Design for Concrete and Masonry Buildings. Pacific Northwest Regional Seminar on Seismic Engineering Issues, Earthquake Engineering Research Institute, Portland, Oregon, 8/12/93.
An Evaluation of the Seismic Resistance Capability of the Trojan Spent Fuel Pool Structure if Subjected to Seismic Margin Earthquake Ground Motions. Oregon Department of Energy Hearings, Newberg, Oregon, 9/93.
Seismic Considerations in the Realistic Three-Dimensional Finite Element Modeling of Buildings. Designing for Earthquakes Seminar, Structural Engineers Association of Oregon, Portland, Oregon, 11/18/94.
New Boundary Zone Provisions for the Seismic Design of Shearwalls in the 1994 UBC. Structural Engineers Association of Oregon, 5/25/94.
New Trends in Seismic Engineering for New and Existing Buildings. Portland General Electric Seminar, Portland, Oregon, 7/12/94.
Structural Dynamics in Earthquake Engineering. Portland State University's Issues in Earthquake Engineering Lecture Series, Portland, Oregon, 1/20/95.
Finite Element Modeling for the City of Portland Public Office Building. General Purpose Computer Modeling of Structures Seminar. Structural Engineers Association of Oregon, Portland, Oregon, 1/29/97.
Precast Cladding: Architectural Uses, Structural Analysis & Design Considerations. Precast Cladding Seminar. Structural Engineers Association of Oregon, Portland, Oregon, 4/10/03.

Professional Memberships

Structural Engineers Association of Oregon - President, 1994-1995
American Concrete Institute
Earthquake Engineering Research Institute
American Institute of Steel Construction
University of Portland Department of Civil Engineering
Consulting Committee Member, 1994 - 2007

EMPLOYMENT

- 1996 – Present, Owner, David Bugni & Associates, Consulting Structural Engineers
- 1992-1996 Structural Department Manager, Western Region, Jacobs-Sirrine Engineers, Inc., Lake Oswego, Oregon
- 1986-1992 Associate, Kramer-Gehlen & Associates, Vancouver, Washington
- 1984-1986 Associate, H. J. Brunnier Associates, San Francisco, California

EXPERIENCE

Representative Industrial, Commercial, and Institutional Projects

Estacada Public Library, Estacada, Oregon
Library and Community Room. 13,000 SF single-story wood structure. SRG Architects.

Beaverton Library, Beaverton, Oregon
Structural design of precast planks, beams, columns and wall panels. Thomas Hacker & Associates Architects (for Morse Brothers Prestress).

Lake Oswego School District, Lake Oswego, Oregon
Oak Creek Elementary School. 50,000 SF two-story timber structure, including library and gymnasium. BOOR/A Architects.

Atmel Corporation Office Building, San Jose, California
New Headquarters Facility. 306,000 SF, two-story, structural steel building. Responsible for structural design.

Micron Technology Office Building, Boise, Idaho
250,000 SF, five story, structural steel building. Responsible for structural design.

Representative Seismic Evaluation and Rehabilitation Projects

Oregon Department of Energy, Salem, Oregon
Trojan Nuclear Power Facility Seismic Analysis. Evaluated seismic-resistant capacity of spent fuel pool containment structure to resist proposed seismic margin earthquake. Structure was last to house radioactive materials at this site.

San Francisco-Oakland Bay Bridge, San Francisco, California
Nonlinear static pushover analyses of the temporary shoring towers that will support the reinforced, post-tensioned concrete east approach for this portion of the replacement of the existing bridge structure.

City of Portland, Public Office Building, Portland, Oregon
Structural analysis and design of rehabilitation requirements to upgrade seismic-resisting system of this reinforced concrete building designed by Michael Graves. Analyzed and recommended measures to retrofit the failed 15th floor concrete slab.

Lloyd 500 Building, Portland, Oregon
Structural analysis and evaluation performed as part of due diligence study of 18-story structure, including evaluation of adjacent post-tensioned parking structure. Static and dynamic seismic analyses.

Benson Hotel, Portland, Oregon
Seismic upgrade of this historic 1914 unreinforced masonry and structural steel building. Rehabilitation included installation of shotcrete walls.

San Francisco Civic Auditorium, San Francisco, California
Analysis and upgrades to exterior parapets, facades, and ornamentation.

The Portland Art Museum, Portland Oregon
Seismic evaluation of the main wings of this four story, 115,000 SF reinforced concrete museum: the Ayer Wing (1931), Hirsch Wing(1939) and Hoffman Wing(1968). Provided structural recommendations for a substantial renovation to the museum to accommodate new viewing galleries. Exterior consists of brick, terra cotta, and stone veneers.

Smurfit Newsprint Corporation, Oregon City, Oregon
Peroxide Bleaching System. Project included major structural steel frame addition to this existing 1950's facility, including two new floors and rehabilitation of entire structure to Seismic Zone 3 requirements.

Oregon City Main Fire Station, Oregon City, Oregon
Seismic analysis and upgrade of historic 1920's vintage two story unreinforced concrete building. Use of reinforced composite carbon and fiberglass rehabilitation systems. Iselin Architects.

Semiconductor Industry Projects

Atmel Corporation, Colorado Springs, Colorado
New Wafer Fabrication Facility No. 5. Responsible for structural design for project consisting of design and construction management of new 175,000 SF three-story wafer fabrication facility, with capacity for 40,000 SF of Class 1 cleanroom with 97-foot cleanroom clearspans. Design and construction performed on extremely fast-track schedule. Approximate construction cost: $60,000,000.

Atmel Corporation, Rousset, France
New Wafer Fabrication Facility No. 7. Responsible for structural design for project consisting of schematic design of new 400,000 SF three-story wafer fabrication facility, with capacity for 73,000 SF of Class 1 cleanroom with 95-foot cleanroom clearspans. Approximate construction cost: $100,000,000.

National Semiconductor Corporation, South Portland, Maine
New Wafer Fabrication Facility. Responsible for structural design for project consisting of design and construction management of new 532,000 SF four-story wafer fabrication facility, with capacity for 43,000 SF of Class 1 cleanroom with 220-foot cleanroom clearspans. Design and construction performed on extremely fast-track schedule. Approximate construction cost: $158,000,000.

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Name: Joseph C. Gehlen
First *Middle Initial* *Last*
Mailing Address: Kramer Gehlen and Assoc., Inc.

Occupation: Structural Engineer

Daytime Phone: 503-289-2661 Email: joeg@kramer-gehlen.com

Biography/Resumé Attached? ☒ Yes ☐ No

CHECK UP TO THREE (3) GROUPS YOU ARE INTERESTED IN (descriptions are online):

- ☐ Adjustment Committee
- ☐ Alternative Technology Adv Com
- ☐ Building Code Board of Appeal
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- ☐ Design Commission
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- ☐ Housing & Community Develop Com
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- ☐ Purchasing Board of Appeals
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- ☐ River Community Advisory Committee
- ☐ Small Business Advisory Council
- ☒ Structural Engineering Adv Board
- ☐ Time, Place, Manner Adv. Committee
- ☐ Towing Board of Review
- ☐ Urban Forestry Commission
- ☐ Workforce Investment Board
- ☐ Children's Investm. Fund Alloc Com
- ☐

List education, including degree(s) earned:

BSCE Oregon State University 1973
Graduate level classes at Portland State University 1975 and 1976

1st Choice:

Name of Board/Commission/Committee: Structural Engineering Advisory Committee

A. Reasons for wanting to serve on this group:

I have been a structural engineer in the Portland area for a long time I have an interest in helping Portland promote good practice in buildi structural designs and I believe with my experience in the structural designs of many different structures I can offer some expertise and sound judgement in the advice the committee offers to the City personn

B. List skills or knowledge that would be relevant to this Board/Commission:

I have been a structural engineer in the Portland area over 35 years. Over this time period, we have provided designs on large and small buildings using various structural systems. We have significant experience using concrete, steel, wood and masonry in both new and renovated projects. We stay current on state of the art design practic

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to)	Employer or Volunteer Activity	Responsibilities
Over 10 yrs to present	Appeals Boards at Vancouver and Clark Co.	Review appeals and code changes
over 10 yrs to present	Portland Archdiocese Building Commission	Review projects for code and diocese design standards.
Over 10 yrs to present	Portland Structural Advisory Committee	Review projects and offer guidance to City Engrs on structural issues.

2nd Choice:

Name of Board/Commission/Committee: _____

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission:

Dates (from/to)	Employer or Volunteer Activity	Responsibilities

3rd Choice:
Name of Board/Commission/Committee: _____

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to) Employer or Volunteer Activity Responsibilities

List your experience working on diverse teams or committees:
I have been president and CEO of my firm since 1988 (interact with many different groups of people in a team effort to do complex projects). I have been Treasurer, Chair and Past Chair for the Council of American Structural Engineers. Served as Chair on 4 different committees also. Served on the Executive Committee for the SEI BPAD and President of SEAO. Serve as an observer and participant on the SEAOC Seismology Committee. Serve as Trustee on PNCE Health Trust (currently has 700+/_ insured lives).

Describe your understanding of the services the City of Portland provides:
The Bureau of Developmental Services reviews plans and calculations to verif projects comply with Portland and Oregon Building Codes for public safety of citizens. The advisory committee aids the City personnel in making judgemer concerning structures that cannot comply or have special considerations that do not fit the strict code criteria. The committee offers a sounding board and an opportunity for developing consensus on difficult decisions that migl need to be made on a project.

My signature affirms that all information contained herein is true to the best of my knowledge, and that I understand that any misstatement of fact or misrepresentation of credentials may result in this application being disqualified from further consideration.

Signature: _____ **Date:** 9/27/10

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Age:	☐ **Under 18**	☒ **18-64**	☐ **65+**
Race:	☐ **African-American** ☐ **Hispanic**	☐ **Asian** ☐ **Native American**	☒ **Caucasian**
Gender:	☐ **Female**	☒ **Male**	
Disability:	☒ **No**	☐ **Yes**	
		If yes, please specify: _____	

Résumé

Joseph C. Gehlen, P.E., S.E.

PRESIDENT and CEO

Mr. Gehlen has 37 years experience in structural engineering in industrial, commercial, educational, institutional, hotel/motel, restaurant, and parking facilities.

Structural engineering responsibilities include: General concept, schematic layouts, cost estimates, design calculations, plans and specifications, construction observation, seismic analysis, damage surveys and material studies.

PROFESSIONAL MEMBERSHIPS

American Council of Engineering Companies (ACEC)

American Society of Civil Engineers (ASCE)

Structural Engineers Institute, Business and Professional Activities Division

Council of American Structural Engineers (CASE)

Chair: 2003 to 2004

Structural Advisory Committee, City of Portland, OR

Office of Planning and Development Review for Structural Issues

Board of Appeals for Code Issues, Clark County, WA

Board of Appeals for Building-Fire Code Issues, City of Vancouver, WA

Office of Emergency Management, King County, WA

Volunteer Emergency Worker (Seismic and Wind Disasters)

Structural Engineers Association of Oregon (SEAO)

President: 1990 to 1991

Representative to the National Council of Structural Engineer Associations (NCSEA)

Observer to the Seismology Committee of Structural Engineers Association of California (SEAOC)

Structural Engineers Association of Washington (SEAW)

Structural Engineers Association of Northern California (SEAONC)

Archdiocese of Portland Building Commission

American Institute of Steel Construction (AISC)

American Concrete Institute (ACI)

American Welding Society (AWS)

Construction Specifications Institute (CSI)

Precast/Prestressed Concrete Institute (PCI)

KGA
KRAMER
GEHLEN
ASSOCIATES

Kramer Gehlen & Associates, Inc.
Consulting Structural Engineers
400 Columbia Street, Suite 240
Vancouver, WA 98660-3413

Vancouver	360-693-1621
Portland	503-289-2631
Fax	360-696-1572
Web Site	www.kga.cc
E-mail	joeg@kga.cc

EDUCATION

1973 B.S.
Civil Engineering
Oregon State University
Corvallis, OR

1974 through 1981
Advanced classes,
but no degree

PROFESSIONAL REGISTRATIONS

States of:

Washington	0017121 SE
Oregon	10009 SE
Alaska	
Arizona	
California	
Colorado	
Idaho	
Michigan	
Nevada	
Texas	
Utah	

ATC-20 Certified
Post-Earthquake Inspector

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Name: Timothy M. Rippey
First *Middle Initial* *Last*
Mailing Address: 7650 SW Beveland Street, Suite 100, Tigard, OR 97223

Occupation: Structural Engineer/Company Owner

Daytime Phone: (503)443-3900 Email: trippey@tmrippey.com

Biography/Resumé Attached? X Yes ☐ No

CHECK UP TO THREE (3) GROUPS YOU ARE INTERESTED IN (descriptions are online):

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- ☐ Urban Forestry Commission
- ☐ Workforce Investment Board
- ☐ Children's Investm. Fund Alloc Com
- ☐

List education, including degree(s) earned:

Master of Science, Structural Engineer – Stanford University (1982)
Bachelor of Science, Civil Engineer – Stanford University (1981)

1st Choice:

Name of Board/Commission/Committee: City of Portland's Structural Advisory Board

A. Reasons for wanting to serve on this group:

I served previously on the Board for three years, appointment expired in 2008. I now have more available time to serve as I am no longer Executive Chairman of the Board for the Boys & Girls Clubs of Metro Portland. I can also provide industry practical structural engineering knowledge to the difficult structural code provision required by the City of Portland.

B. List skills or knowledge that would be relevant to this Board/Commission:

I served on this Board previously and have worked as a structural engineer for over 28 years.

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to)	Employer or Volunteer Activity	Responsibilities
1997-Present	State of Oregon Lateral Force Committee	Responsibilities include reviewing the structural provisions and proposed amendments for the IBC (International Building Code) and IRC (International Residential Code).
1993-Present	T.M. Rippey Consulting Engineers	Owner and principal structural engineer of T.M. Rippey Consulting Engineers. Project manager for the structural design of a variety of commercial, industrial, and multifamily projects.

2nd Choice:

Name of Board/Commission/Committee: N/A

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission:

Dates (from/to)	Employer or Volunteer Activity	Responsibilities

3rd Choice:
Name of Board/Commission/Committee: N/A

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to) Employer or Volunteer Activity Responsibilities

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List your experience working on diverse teams or committees:

Chairman of the Board Boys & Girls Clubs of the Portland Metro Area – 2008-2010.
Vice Chairman of the Board Boys & Girls Clubs of the Portland Metro Area – 2004-2008.
Building Committee Chairman, Community of Hope Lutheran Church – 2001-2005.

Describe your understanding of the services the City of Portland provides:

I provide industry practical structural engineering knowledge fo the difficult structural code provisions required by the City of Portland.

My signature affirms that all information contained herein is true to the best of my knowledge, and that I understand that any misstatement of fact or misrepresentation of credentials may result in this application being disqualified from further consideration.

Signature: J. M. ??? **Date:** 9/28/2010

Please note this optional information **must** remain on a separate page from the rest of the application.

OPTIONAL INFORMATION

The City asks that you voluntarily provide the following information. The City will use this information for statistical purposes, such as tracking the geographical diversity of board and commission appointees. By providing this information, you will help us ensure that appointments represent a broad cross-section of the community. You are under no legal obligation to provide this information. State and federal law prohibit the use of this information to discriminate against you. The City will treat this information as confidential to the fullest extent allowed by law.

Age:	☐ **Under 18**	**X 18-64**	☐ **65+**
Race:	☐ **African-American** ☐ **Hispanic**	☐ **Asian** ☐ **Native American**	**X Caucasian**
Gender:	☐ **Female**	**X Male**	
Disability:	**X No**	☐ **Yes**	

If yes, please specify: _____

TM RIPPEY
CONSULTING ENGINEERS

7650 SW Beveland Street, Suite 100
Tigard, OR 97223

Phone: (503) 443-3900
Fax: (503) 443-3700

RESUME

TIMOTHY M. RIPPEY, P.E., S.E.

POSITION:	Principal
EDUCATION:	Stanford University, Master of Science, Structural Engineering, 1982 Stanford University, Bachelor of Science, Civil Engineering, 1981
TOTAL PROFESSIONAL EXPERIENCE:	28 Years
PROFESSIONAL REGISTRATIONS:	Licensed Professional Structural and Civil Engineer in Oregon, Washington, Idaho, Hawaii, and California. Licensed Professional Engineer in Nevada, Arizona, and Montana.
PROFESSIONAL AFFILIATIONS:	City of Portland – Structural Engr. Advisory Committee Structural Engineers Association of Oregon State of Oregon – Structural/Lateral Force Committee American Institute of Steel Construction (AISC) American Concrete Institute (ACI)
VOLUNTEER AFFILIATIONS:	Executive Committee Member and Chairman of the Board: Boys & Girls Clubs of Metro Portland Building Committee: Community of Hope Lutheran Church, Wilsonville, Oregon
EXPERIENCE:	Mr. Rippey has served as principal/project manager for the structural design of over ten million square feet of buildings. Mr. Rippey has been project manager for the structural design of a variety of commercial, industrial, and multifamily projects, providing in-depth knowledge of a wide range of building systems, building materials, and computer applications. The commercial projects include seismic upgrades, as well as new office buildings, retail, and light industrial buildings. Mr. Rippey was a member of the City of Portland Committee that prepared the provisions for five story wood frame construction. Mr. Rippey has also been responsible for the review and evaluation of numerous existing and proposed structures for various users, purchasers, and lending institutions. Mr. Rippey has also served on the State of Oregon Building Code Structures Board for six years, assisting in writing lateral force provisions of the State of Oregon building code.

Interest Form for City Board & Commission Appointments

The purpose of this form is to obtain information for use in making appointments to City boards, commissions, and committees, and to assist the Mayor in making inquiries concerning the qualifications of applicants for appointment. Please note that information provided in this document ***is public information,*** *with the exception of the confidential section. (Information in the confidential section will only be disclosed as required by law.) If you have a recently prepared biography or resumé, please attach it to this form. Thank you for your interest.*

Please return application, resumé and any additional information to:
Office of Neighborhood Involvement, 1221 SW 4th Ave, Room 110, Portland, Or 97204

To help ensure equal access to City programs, services and activities, the City of Portland will reasonably modify policies/procedures and provide auxiliary aids/services to persons with disabilities. Call 503-823-2030 or 503-823-4000 with such requests.

Name: CHRISTOPHER L THOMPSON
First *Middle Initial* *Last*

Mailing Address: 1111 NE FLANDERS ST. #206

Occupation: STRUCTURAL ENGINEER

Daytime Phone: 503.467.4980 Email: chris@catenaengineers.com

Biography/Resumé Attached? ☒ Yes ☐ No

CHECK UP TO THREE (3) GROUPS YOU ARE INTERESTED IN (descriptions are online):

- ☐ Adjustment Committee
- ☐ Alternative Technology Adv Com
- ☐ Building Code Board of Appeal
- ☐ Business License Appeals Board
- ☐ Citizen Campaign Committee
- ☐ Civil Service Board
- ☐ Community Budget Advisory Board
- ☐ Design Commission
- ☐ Development Review Advisory Com
- ☐ Elders in Action
- ☐ Electrical Code Board of Appeals
- ☐ Fire Code Board of Appeal
- ☐ Floating Structures Board of Appeal
- ☐ Golf Advisory Committee
- ☐ Historic Landmarks Commission
- ☐ Housing Authority of Portland
- ☐ Human Rights Commission
- ☐ Independent Police - Citizen Review Com
- ☐ Investment Advisory Committee
- ☐ Mechanical Code Board of Appeal
- ☐ Metro Exposition Recreation Commission
- ☐ Mt. Hood Cable Regulatory Comm
- ☐ Noise Review Board
- ☐ Plumbing Code Board of Appeal
- ☐ Portland Community Media
- ☐ Portland Development Commission
- ☐ Portland Housing Advisory Board
- ☐ Portland/Multnomah Food Policy Council
- ☐ Portland Parks Board
- ☐ Portland Planning & Sustainability Com
- ☐ Portland Utility Review Board
- ☐ Private-for-Hire Board of Review
- ☐ Public Involvement Advisory Council
- ☐ Purchasing Board of Appeals
- ☐ Regional Arts & Culture Council
- ☐ River Community Advisory Committee
- ☐ Small Business Advisory Council
- ☒ Structural Engineering Adv Board
- ☐ Time, Place, Manner Oversight Com
- ☐ Towing Board of Review
- ☐ Urban Forestry Commission
- ☐ Workforce Investment Board
- ☐ Children's Investm. Fund Alloc Com
- ☐

List education, including degree(s) earned:

BSCE, TRI-STATE UNIVERSITY, 1984
M Eng, UNIVERSITY OF CALIFORNIA, BERKELEY 1989

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OCT 15 2010
OFFICE-NEIGHBORHOOD

1st Choice:

Name of Board/Commission/Committee: STRUCTURAL ADVISORY BOARD

A. Reasons for wanting to serve on this group:

PROVIDE PRIVATE PRACTICE EXPERTISE TO PLAN CHECKERS

B. List skills or knowledge that would be relevant to this Board/Commission:

PRACTICING STRUCTURAL ENGINEER 20 YRS EXP, EQ RECON, EXPERIMENTAL RESEARCH

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to)	Employer or Volunteer Activity	Responsibilities
9/05 - 9/08	SEAO	PRESIDENT
6/00 - 6/05	OREGON SEISMIC SAFETY ADVISORY COUNCIL, CHAIR	

2nd Choice:

Name of Board/Commission/Committee: ____________

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission:

Dates (from/to) Employer or Volunteer Activity Responsibilities

3rd Choice:
Name of Board/Commission/Committee: _____

A. Reasons for wanting to serve on this group:

B. List skills or knowledge that would be relevant to this Board/Commission:

C. List work or volunteer experience that would add to your expertise for this Board/Commission

Dates (from/to) Employer or Volunteer Activity Responsibilities

---

List your experience working on diverse teams or committees:

WORKED AS CHAIR OF OSSPAC FOR 3 YEARS, SERVED ON COMMISSION FOR TOTAL OF 5 YEARS.

Describe your understanding of the services the City of Portland provides:

My signature affirms that all information contained herein is true to the best of my knowledge, and that I understand that any misstatement of fact or misrepresentation of credentials may result in this application being disqualified from further consideration.

Signature: _____ **Date:** 10/7/2010

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Christopher L. Thompson
Principal

Education
B.S.
Tri-State University, Indiana, 1984

M. Engineering
University of California, Berkeley, 1989

Registration
Oregon-Professional Engineer, 1994
License No. 17475

Washington-Professional Engineer, 1991
License No. 0027948

California-Structural Engineer, 1994
License No. 3981

Professional Affiliations
Structural Engineers Association of Oregon

Earthquake Engineering Research Institute

American Society of Civil Engineers

American Institute of Architects

Architectural Foundation of Oregon

Chris Thompson has twenty years of experience in the design of structures, rehabilitation, seismic analysis and strengthening of existing buildings, and shoring systems. Much of his experience utilizes the application of new methodologies which often times result in significant cost savings for the building owner.

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Christopher L. Thompson
Principal

Throughout his career, Mr. Thompson has focused on finding innovative structural solutions for new design projects that assist the architect in expressing the project's design intent. Through this work, he has developed many creative spaces that expose the building's structure and provide open learning environments for the building's occupants. While working on the Lillis Business Center at the University of Oregon, Chris helped design a four-story, steel braced frame atrium that not only provides a magnificent gathering space for the School of Business but provides a visual line of sight through the campus' Western axis.

With several award-winning projects, Mr. Thompson's new design portfolio extends to the healthcare, higher education, and civic market sectors. The award-winning Woodstock Branch Library uses architecturally exposed structural steel throughout the one-story, 7,500 square foot steel framed structure. Designed as a light-filled community room, the library's tall pavilion-style reading room creates a feeling of openness that draws the local community inside. The design received an American Institute of Steel Construction Merit Award ($10 million and under category), an American Institute of Architects Portland Chapter Honor Award, and the prestigious AIA/American Libraries Association Award of Excellence in 2001.

Mr. Thompson remains active in the structural engineering profession through his involvement with the Oregon Seismic Safety Policy Advisory Commission. Appointed by the Governor of Oregon, Chris is currently serving as Chairman of the Commission that recently helped develop and promote legislation in Oregon to seismically upgrade educational, healthcare and emergency facilities. Passed in the Oregon State Senate in 2002, Measures 15 and 16 ensure that these facilities will be upgraded to an immediate occupancy performance standard within the next several decades.

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Christopher L. Thompson
Principal

RELEVANT EXPERIENCE

MUNICPAL/GOVERNMENT

Fire Stations 10, 14, and 23 Renovations, City of Portland, Portland, OR: Provided structural engineering services to renovate three stations for the City of Portland. As essential facilities, Stations 10, 14, and 23 were upgraded to a "fully operational" performance standard that not only protects the life safety of the occupants, but is able to function following a seismic event. In addition to seismic considerations, each station was renovated to accommodate the changing needs of the Fire Bureau including upgraded mechanical/electrical systems, ADA improvements and female firefighter facilities. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Fire Stations 4, 22, and 41 Renovations, City of Portland, Portland, OR: Provided structural engineering services to renovate three stations for the City of Portland. As essential facilities, Stations 4, 22, and 41 were upgraded to a "fully operational" performance standard that not only protects the life safety of the occupants, but is able to function following a seismic event. In addition to seismic considerations, each station was renovated to accommodate the changing needs of the Fire Bureau including upgraded mechanical/electrical systems, ADA improvements and female firefighter facilities. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Fire Stations 3, 25, and 26 Renovations, City of Portland, Portland, OR: Provided structural engineering services to renovate three stations for the City of Portland. As essential facilities, Stations 3, 25, and 26 were upgraded to a "fully operational" performance standard that not only protects the life safety of the occupants, but is able to function following a seismic event. In addition to seismic considerations, each station was renovated to accommodate the changing needs of the Fire Bureau including upgraded mechanical/electrical systems, ADA improvements and female firefighter facilities. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Fire Stations 5, 13, and 42 Renovations, City of Portland, Portland, OR: As part of an architectural team, designed the renovation of three fire stations for the City of Portland. As essential facilities, Stations 5, 13, and 42 were upgraded to a "fully operational" performance standard that not only protects the life safety of the occupants, yet enables the building to function following a seismic event. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

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Christopher L. Thompson
Principal

Fire Station 28, City of Portland, Portland, OR: As part of an architectural team, provided structural engineering services for the renovation of a two-story, 3,450-sf fire station and the addition of a 1,500-sf apparatus bay. Also, a 100-sf eco-roof was built over an adjacent walkway to assist with storm water run-off and sustainability of the building. Listed on the City of Portland's Historic Inventory, the unreinforced masonry station was upgraded to a "fully operational" seismic performance standard. The station houses a 4-person crew and has ADA improvements as well as female firefighter accommodations. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Fire Facilities Seismic Assessment, City of Portland, Portland, OR: Provided the evaluation of 29 fire facilities for the Bureau of Fire, Rescue and Emergency Services. The project involved assisting the City in developing performance objectives for the fire facilities to remain operational following a major earthquake. All buildings were evaluated to Immediate Occupancy Level using FEMA-310 methodology. Following the evaluations, a complete scope of work and cost estimate was developed to mitigate hazards at each station. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Fire Station Seismic Evaluations, Tualatin Valley Fire and Rescue, King City and Sherwood, OR: Performed seismic evaluations for two fire stations within the Tualatin Valley Fire and Rescue district. Constructed in the 1970s, each of the stations consists of concrete masonry bearing walls with wood-frame roofs. The buildings were evaluated using FEMA 310 Guidelines for an Immediate Occupancy performance objective. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Library Facilities Seismic Assessment, Multnomah County Libraries, Portland, OR: Performed seismic evaluations of 12 libraries within Multnomah County. The scope of services included performing FEMA-178 evaluations for each facility and providing preliminary cost estimates for strengthening measures. The team evaluated both structural and nonstructural components of each facility as well as geotechnical issues, mechanical/electrical systems, and architectural features. A final report was submitted to Multnomah County for prioritization of mitigation using available public funding. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Woodstock Branch Library, Multnomah County, Portland, OR: Designed the structural system for this new one-story, 7,500-sf steel framed community library utilizing architecturally exposed structural steel. Cantilever cruciform shaped columns provide

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Christopher L. Thompson
Principal

lateral resistance for the high reading room pavilion style roof. Steel braced frames provide lateral resistance for the lower roof over the staff/support areas. The building design incorporates many sustainable building features including extensive daylighting, high efficiency packaged roof-top HVAC units with direct digital controls, and landscaping using native plant material. Cited as a Portland General Electric Earth Advantage building, the library uses 27% less energy every year than one built under the Oregon Energy Code. This project won a 2001 American Institute of Steel Construction Merit Award, an American Institute of Architects Portland Chapter Honor Award, and the prestigious AIA/American Libraries Association Award of Excellence in 2001. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Hillsdale Branch Library, Multnomah County, Portland, OR: Provided the design of this two-story, 12,400-sf branch library with one-level of underground parking. The central pavilion space of the library, consisting of the main reading room, is a 20-foot-high open space supported by nine steel tree-columns that branch out to support circular steel forms. The circular steel forms, in turn, support an exposed steel and wood roof structure. The project uses a strong concrete base at the parking level. The library design incorporates many green building features including: expansive daylighting created by the open reading room; the use of certified wood products for the exposed wood deck of the ceiling and building structure; low-E glass thermal window pane system; an underfloor air distribution system to increase air quality; and a car charging station and a car sharing space in the underground parking structure. Completed in 2004, the library earned the Gold Certification in the LEED™ Rating System. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Gresham Branch Library, Multnomah County, Gresham, OR: Designed the support of the new mechanical units on this one-story, 4,170-sf existing structure. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Rockwood Branch Library, Multnomah County, Portland, OR: Designed the one-story, 710-sf, wood framed addition to the existing structure. The project also required structural design as a result of architectural modifications to the one-story, 5,640-sf existing wood framed structure. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Historic St. John's Branch Library, Multnomah County, Portland, OR: Designed the seismic strengthening and new addition to this 4,300-sf, one-story wood framed structure with

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Christopher L. Thompson
Principal

brick veneer. The original library, built in 1913 under a Carnegie Foundation grant, is listed in the 1984 "City of Portland Historic Resource Inventory." Seismic strengthening consisted of adding new roof plywood and wall-roof connections during a reroofing project. Elimination of existing bearing walls by adding new beams allowed the creation of a new meeting room. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Gregory Heights Branch Library, Multnomah County, Portland, OR: Designed the architectural modifications and support of new mechanical units on this one-story, 5,700-sf existing structure. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Historic North Portland Branch Library, Multnomah County, Portland, OR: Designed the seismic strengthening and elevator tower addition to this 7,900-sf, two-story unreinforced masonry structure. The original library, built in 1912 under a Carnegie Foundation grant, is listed in the 1984 "City of Portland Historic Resource Inventory." Seismic strengthening consisted of replacing the existing inner wythe of brick and plaster with a new shotcrete wall. In this manner, the net interior dimensions were relatively unchanged, thereby allowing the existing architectural finishes to be replaced in their original locations. This project received a 2001 Engineering Excellence Grand Award from the American Council of Engineering Companies of Oregon. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Historic Belmont Branch Library, Multnomah County, Portland, OR: Provided the structural design of the new one-story, 3,600-sf wood framed addition and for the hazard reduction on the existing structure. The original library, built in 1924, is listed in the 1984 "City of Portland Historic Resource Inventory." The addition included a reading room, staff work areas and a mechanical mezzanine. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Capitol Hill Branch Library, Multnomah County, Portland, OR: Designed the FEMA-178 seismic strengthening, architectural modifications, and new mechanical loft on this one-story, 6,400-sf, wood framed structure. Seismic strengthening primarily consisted of adding architecturally exposed structural steel braced frames. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

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Christopher L. Thompson
Principal

Holgate Branch Library, Multnomah County, Portland, OR: Designed the FEMA-178 seismic strengthening, architectural modifications, and new mechanical loft on this one-story, 6,400-sf, wood framed structure. Seismic strengthening primarily consisted of adding architecturally exposed structural steel braced frames. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Sherwood Civic Building, Sherwood, OR: Provided structural engineering for the design of this 26,500-sf civic building housing a library, city hall, community room, and retail/office space. Located adjacent to an operating railroad, special considerations to acoustical and vibration concerns were addressed. Constructed of steel, the construction budget is approximately $7.6 million.

Alameda Free Library, Alameda, CA: Provided structural engineering services for the design of this two-story, 49,000-sf library located in an urban neighborhood. The library is constructed of a hybrid structural steel system and will feature three vaulted roofs constructed of exposed timber framing. The project also included a small parking deck that was constructed of post-tensioned concrete slabs and beams. Estimated construction costs are approximately $13 million.

Juniper Swim & Fitness Center, Bend, OR: Working with Opsis Architecture, designed a new, one-story, 10,000-sf addition to this existing aquatic center in Bend. The project also included the renovation of approximately 8,000-sf to the fitness center as well as the demolition of a building to include an aerobics room in the fitness center. The estimated total construction cost of the project is $6.1 million and is planned for completion in 2006.

Clifford Davis Federal Building, Building Seismic Safety Council, Memphis, TN: Performed non-linear static push over analysis of this 14-story, 400,000-sf reinforced concrete office building. The analysis was conducted as part of a nation-wide study of the *NEHRP Guidelines for the Seismic Rehabilitation of Existing Buildings*. Remediation measures were analyzed and developed for all structural and non-structural elements. In addition, prevailing practice rehabilitation measures conforming to the 1994 UBC were developed for a basis of comparison. Exterior steel braced frames were used to strengthen the building for both the *Guidelines* and prevailing practice designs. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Multnomah County Courthouse, Multnomah County, Portland, OR: Provided a seismic evaluation and conceptual strengthening recommendations for this historic building

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Christopher L. Thompson
Principal

located in downtown Portland. The building is an eight-story, concrete encased steel frame structure with exterior unreinforced masonry infill walls. In addition to seismic strengthening, the conceptual study included structural recommendations for infilling an existing five-story interior courtyard and construction of four additional stories to the building. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Gordon House Relocation, Frank Lloyd Wright Building Conservancy, Wilsonville to Silverton, OR: Provided design, disassembly, and reconstruction services for the only Frank Lloyd Wright designed building in Oregon. This 2,200-sf masonry home was disassembled into four segments small enough for transport and reassembled at the new Oregon Garden located in Silverton, Oregon. The main portion of the historic building was temporarily placed two feet above the final location to allow for a new foundation to be poured and the first floor to be rebuilt. The building was then aligned, lowered, and tied back together. The design solution utilized stronger foundations and cantilevered columns in order to accommodate modern code provisions without modifying the appearance of the building. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Operations Building and Public Services Building, Oregon Department of Forestry, Salem, OR: Provided the structural design of two, new two-story public office buildings with a total area of 50,000-sf for the Oregon Department of Forestry. Both buildings feature large expanses of exposed steel framing and sloped wood roof sheathing, much of which was reused from previous buildings on the site. The choice of a steel structure allowed for an open layout and the opportunity for natural lighting to reduce energy use. Also, worked with the architectural design team to provide a clear and lightweight structure that became a significant design element for the project. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

HIGHER EDUCATION

St. Albert's Hall, St. Mary's College, Moraga, CA: Provided the structural evaluation of this existing library to assist the College with campus planning. Also provided conceptual schematic design for an 80,000-sf, three-story new library. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Hannon Library, Southern Oregon University, Ashland, OR: Designed the expansion of and renovation to the existing library. Totaling 65,000-sf, the three-story addition includes

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Christopher L. Thompson
Principal

an entry rotunda constructed of an exposed steel structural frame that provides a new identity for the building. In order to meet the required fire rating, the design used state-of-the-art methodologies to analyze and design steel pipe columns filled with concrete, rather than traditional intumescent paint. The resulting atrium space features the exposed structure as a significant element of the design. Close collaboration and creative work sessions with the design team ensured the complete coordination of the design.

The renovation of the existing library, including a seismic strengthening using FEMA 356 Guidelines, saved the University approximately $350,000 in construction. The project utilized sustainable design concepts including re-use of the existing library, daylighting, and energy efficiency aided by the thermal mass of the floor structure. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Department of Environmental Quality Building, Portland State University, Portland, OR: Provided the schematic design of a new six-story, 80,000-sf building for the Department of Environmental Quality. The building, to be located on the Portland State University campus, will house water quality labs, office and support space as well as meeting rooms. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Seismic Evaluations, Clackamas Community College, Oregon City, OR: Provided structural and seismic evaluations of six major buildings on the Oregon City campus. The scope of work included developing a report that outlined the expected building performance during an earthquake. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Science One and Two, Portland State University, Portland, OR: Provided a preliminary seismic evaluation of both Science One and Two on the Portland State University campus. The evaluations used FEMA-178 and included a detailed report with FEMA checklists and calculations. The evaluations were required by the City of Portland in anticipation of an addition to the Science One and remodeling the first two floors of Science Two. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Lillis Business Complex, University of Oregon, Eugene, OR: Provided design services for a new 131,000-sf classroom and office building for the business school and University. The entrance features a dramatic four-story atrium filled with natural light in which tree-like

steel columns support a barrel vaulted roof and a curved multi-story staircase beneath a circular skylight. The exposed structure involved intimate coordination with the architectural team, who wanted to use the steel as an integral feature of the design. The use of steel, frequently penetrated by mechanical systems and thereby requiring close collaboration among the design team members, allows for higher ceilings that add to a feeling of openness in the classrooms and learning laboratories. The building earned the LEED™ Silver rating, utilizing photovoltaic cells, eco-roofs, under-floor ventilation plenums, and thickened concrete slabs that increase the building's thermal mass. Construction was completed in September 2003 with construction costs nearing $30 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

James F. Miller Theatre Complex – Robinson and Hope Theatres, University of Oregon, Eugene, OR: Working with Thomas Hacker Architects to provide an extensive expansion of the Theatre complex. The project consists of additions to Villard Hall and Robinson Theatre that will provide a modern entry lobby, a studio experimental theater with a capacity of about 150, additional theater support, and instructional spaces. It also includes remodeling the theater complex as needed to support the new theater and to enhance the function, programming and appearance of the existing facilities. Schematic Design was completed while at Degenkolb Engineers. Design Development through Construction Administration was completed by catena consulting engineers.

Gilbert and Peterson Halls, University of Oregon, Eugene, OR: Designed the renovations of Gilbert and Peterson Halls to integrate with the new Lillis Business Complex. The three-story buildings accommodate classrooms, lecture halls and offices for the Lundquist College of Business and are both constructed of unreinforced masonry bearing walls. Working with the University we provided the seismic strengthening design as part of the complete renovation of the facility for use as a state-of-the-art teaching facility. Our design used FEMA methodologies for unreinforced masonry buildings and consisted of added concrete shear wall core and perimeter elements. Scheduled to begin in early 2007, construction costs are approximately $5.5 million. Chris Thompson served as Principal-in-Charge.

Living Learning Center, University of Oregon, Eugene, OR: Designed two student residence halls, totaling 120,000-sf with 400 beds that also include instructional space, a performance space, lounges, a kitchen, and a dining facility. The concrete structure, much of which is exposed and thus elemental to the design of the space, provides thermal mass to reduce energy costs and is intended to allow for possible future

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Christopher L. Thompson
Principal

conversion to alternate use. The project is scheduled for occupancy in 2006, with a direct construction cost of $27 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Fine Arts Center, Lower Columbia College, Longview, WA: Working with Opsis Architecture, designed a new two-story, 51,000-sf, steel framed structure housing a 500-seat traditional theater, a 150-seat thrust theater and one large rehearsal room. Additionally, there will be an art gallery, several music practice rooms, a scene shop room and several classrooms. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge. Chris' involvement ended at the Construction Documents phase of this new design project.

Medical Education Building, Stanford University School of Medicine, Palo Alto, CA: Provided the schematic structural design of this new, three-story, steel-frame education building. The facility includes two large auditoriums and a case study classroom in the basement. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Niemeyer Center, Clackamas Community College, Oregon City, OR: Provided design for a 48,000-sf facility that houses a 250-seat auditorium theater and a smaller 200-seat black-box style theater. In addition, a two-story portion of the building is used for classroom purposes. The structural system of the building is constructed of steel beams with composite metal design with lateral loads resisted by steel braced frames. Construction costs for this project total $13 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Pauling Annex, Clackamas Community College, Oregon City, OR: Working with Opsis Architecture, designed a two-story, 18,000-sf building housing nursing classrooms. The structural system of the building consists of steel beams with composite metal deck. Steel braced frames resist lateral loads. The construction costs totaled $4 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Studio Arts Building, Clackamas Community College, Oregon City, OR: Working with Opsis Architecture, designed the one-story, 11,500-sf building housing studio art and classroom space. The structural system of the building consists of wood stud bearing and shear walls and makes extensive use of exposed wood roof framing. The construction costs totaled $1.7 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

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Christopher L. Thompson
Principal

Gateway Building, Clackamas Community College, Oregon City, OR: Working with Opsis Architecture, designed this two-story, 29,000-sf building used for office and classroom purposes. The building is constructed of steel beams and composite metal deck with steel braced frames resisting lateral loads. The construction costs totaled $5.3 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Streeter Annex, Clackamas Community College, Oregon City, OR: Working with Opsis Architecture, designed the one-story, 7,000-sf building housing computer science classroom space. The structural system of the building consists of wood roof framing and wood stud bearing and shear walls. The construction costs totaled $1.3 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Welding Building, Clackamas Community College, Oregon City, OR: Designed this one-story, 9,000-sf Butler Building housing traditional classroom space as well as manufacturing classroom space. The estimated construction cost totals $1.3 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Library Building 9, Portland Community College, Portland, OR: Working with Thomas Hacker Architects, provided structural design for a new two-story, 65,000-sf library that features a central reading room with a high roof cantilevered above the main roof level. The high roof structure is composed of exposed articulated steel arches which support additional layers of exposed steel beams, glulam beams and wood deck. Intimate collaboration with the design architects resulted in this highly ornamental exposed structural steel space. The design incorporates steel framing with braced frames on concrete shear walls. Construction of this $11 million library was completed in 2004. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Science Building 7, Portland Community College, Portland, OR: Working with Thomas Hacker Architects, provided structural design for a new two-story, 20,000-sf addition to this science classroom building that included new science and computer laboratories. Constructed with a combination of steel-frames and masonry walls, this $6 million addition was completed in 2004. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Residence Hall, Willamette University, Salem, OR: Provided structural design for this $9.5 million, 175-bed housing complex on the Willamette University campus. The facility

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Principal

included a dining facility, conference and ancillary rooms for students as well as student living quarters. The new structure is a four-story concrete flat slab building. The project also included a renovation component that will involve adding an atrium space and conversion of rooms in the existing Kaneko Hall. While at Degenkolb Engineers, John McDonald served as Principal-in-Charge. While at Degenkolb Engineers, Chris Thompson served as Project Mentor.

Old Dorm Block, Reed College, Portland, OR: Provided seismic analysis and strengthening services in conjunction with the renovation of a three-story, 36,700-sf concrete building with unreinforced masonry walls. Also, developed several innovative, cost effective methods to mitigate "non-structural" hazards that were an integral part of the classic exterior of this historic building constructed in 1912. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Dixon Recreation Center, Oregon State University, Corvallis, OR: Designed a cast-in-place concrete addition to an existing athletic facility that included locker rooms and an indoor pool. Construction costs were $4.7 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Learning Resource Center & Forum/Theatre, Portland Community College, Portland, OR: Designed a two-story, 57,000-sf cast-in-place, concrete library with construction costs of $6.2 million. Also designed a one-story, 24,500-sf, $6 million steel frame theater. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

HIGH TECH/MANUFACTURING

Building 2 Seismic Strengthening, Hewlett-Packard Company, Vancouver, WA: Provided a conceptual study where performance objectives, conceptual schemes and budgets were established for the remodel of this one-story, 161,000-sf manufacturing facility. Designed the seismic strengthening using steel braced frames throughout the building. The project was completed in January 2000. Project costs totaled $1,092,784 ($7 per square foot). Structural costs totaled $610,100 ($3.80 per square foot). While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Building 1, Hewlett-Packard Company, Vancouver, WA: Performed a seismic evaluation and conceptual design of seismic strengthening of this two-story, 210,000-sf, steel-framed office building. Provided three options for the seismic strengthening design using FEMA-

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273 methodologies. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Commons, Hewlett-Packard Company, Vancouver, WA: Performed a seismic evaluation and strengthening of this one-story, 30,000-sf, steel-framed cafeteria. Using the FEMA-273 methodology, the seismic upgrade design included the addition of braced frames and concrete shear walls. Project costs totaled $358,500 ($11.95 per square foot). Structural costs totaled 108,600 ($3.62 per square foot). While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Data Center Addition, Hewlett-Packard Company, Vancouver, WA: Designed a 9,400-sf data center on the upper level of an existing steel-framed office building. Light gage steel joists supported by steel wide-flange beams were utilized for the new ceiling system so that it did not impact loads on the existing roof system. The data center featured a two-foot tall raised access floor and was designed to remain operational after an earthquake. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Building 3, Hewlett-Packard Company, Corvallis, OR: Prime Consultant for the seismic upgrade of this two-story, 225,000-sf, steel braced frame manufacturing building with complete basement. The lower level of the building is primarily clean room space with office support for the clean room space in the upper level and mechanical support in the lower level. The team developed a unique approach for the structural seismic upgrade of this building by providing exterior braced frames that were constructed without significant impact to the continued operation of the building. Concurrently with the structural seismic upgrade, the team conducted a detailed seismic evaluation of all nonstructural systems in the building ranging from architectural systems to mechanical equipment to specialty process gas and chemical systems. By using a modified version of the process documented in FEMA 273 the team identified all life-safety hazards and provided recommendations for their seismic upgrade. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Building 3, Hewlett-Packard Company, Corvallis, OR: Provided a detailed seismic evaluation of nonstructural components in this manufacturing building. The study included an evaluation of all components and systems considered to present a risk to life-safety in the event of failure. Decision matrices were developed to prioritize life-safety

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hazards and innovative recommendations were developed to mitigate hazards. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Building 7, Hewlett-Packard Company, Corvallis, OR: Developed and designed a system to seismically upgrade this one-story manufacturing building by providing new wall anchorage from above the existing roof. This system allowed the building to remain in full operation during construction. In addition to the seismic upgrade, the team also designed new vertical framing for several areas of the roof structure where mechanical and electrical loading has exceeded the original design criteria. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

TEK Systems, Inc., Portland, OR: Designed a 35,000-sf data center within an existing one-story, concrete tilt-up office building. Designed to remain operational after an earthquake, the data center featured infrastructure support for two generators, 8,000-gl fuel tanks, battery racks, 18-inch tall raised access floor. Also provided computer rack anchorage and cable rack support. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

New Edge Networks, Portland, OR: Designed the seismic strengthening study for a 96,000-sf existing office/warehouse building. Designed to remain operational following an earthquake, the building would was designed to house offices and a network operations center. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Historic Centric Corporation, Portland, OR: Designed the seismic retrofit for a two-story, concrete frame warehouse to house telecom companies. Originally constructed in 1938, the building was designed to remain operational after a major earthquake. The team's design solution, utilizing shotcrete perimeter shear walls and fiber reinforced polymer (FRP) column wrap, coupled with the analysis tools of FEMA 273, produced a retrofit with up to $1 million in savings over conventional methods. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Inflow, Portland, OR: Provided the design of a 39,000-sf warehouse space to support telecommunication racks. Roof platforms were designed for supporting mechanical units in order to maximize floor space for revenue producing racks. In addition, access floor, dry sprinkler, and mechanical unit anchors were designed to remain operational after a major earthquake. Large roof openings in the existing concrete slab were coordinated with mechanical and electrical needs to eliminate the need for slab

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strengthening. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

COLO.COM, Portland, OR: Designed a 23,000-sf co-location space on the ground floor of an existing building. The existing slab on grade was lowered in order to fit all tenant equipment and services within a small floor-to-floor height. Roof platforms were designed for supporting mechanical units in order to maximize floor space for revenue producing cages and racks. In addition, extensive coordination with electrical consultants regarding structural conditions and options provided simple, short conduit runs within this confined, electrically intensive space. Also, designed hanging ceiling grid, dry sprinkler, and mechanical unit anchors to remain operational after a major earthquake. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Historic Pacific Telecom Exchange Building, Portland, OR: Designed the voluntary seismic upgrade of this four-story, reinforced concrete frame building. Originally constructed in 1927, this historic building occupies an entire city block and was intended to be occupied by telecommunications providers. Non-linear analysis procedures outlined in FEMA 273 and FEMA 356 were used. The seismic analysis and design criteria is based on the Immediate Occupancy performance objective for an earthquake. This was the first project in Portland to be approved for the UBC equivalency using FEMA 356 methods. The Structural Advisory Commission and the City of Portland granted a change of occupancy status from a warehouse to office space, recognizing that the FEMA upgrade met or exceeded the mandatory UBC upgrade requirements. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Shorewood Packaging, Springfield, OR: Provided structural engineering for this 115,200-sf high-bay, precast concrete packaging facility. The project included an additional 8,810-sf of mezzanine space within the structure and an attached 13,900-sf office building. Construction costs were $7.1 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

HEALTHCARE

Westside Medical Center, Kaiser Permanente, Hillsboro, OR: Currently providing structural engineering services for the planned Westside Medical Center located on a 14 acre site in Hillsboro, Oregon. Components of the project include a hospital building, a hospital

support building, and a parking structure. The overall construction cost is estimated at $225 million.

The hospital building will house 162 patient rooms, diagnostic & treatment facilities, emergency room facilities, surgery suites, and a subterranean central utility plant. The hospital will be four stories and will be approximately 370,000-sf. The hospital support building will house medical offices and outpatient care facilities. It will be five stories and approximately 321,000-sf. The parking structure will be seven stories and provide parking for 2300 vehicles. catena consulting engineers is working in collaboration with DASSE Design and Perkins & Will on this project.

Reference: Randy Larsen, Perkins & Will 213-270-8522.

Shriner's Hospital for Children, Portland, OR: Providing design services for the planned 68,000 square foot addition to and renovation of the existing 57,000 square foot Shriners Hospital on Marquam Hill in Portland. The 4 story expansion will span 90 feet over the existing parking structure with steel transfer trusses. The building will use Buckling Restrained Braced Frames for seismic resistance, a system that will minimize the impact to the transfer trusses upon which they are supported. The addition will be designed to accommodate a future three story addition. Chris Thompson is serving as Principal-in-Charge.

Legacy Emanuel Children's Hospital, Portland, OR: Providing design services for the planned 283,000 square foot, eight story new Children's Hospital in Portland. catena was chosen by Zimmer Gunsul Frasca for this project due our in depth knowledge of children's hospitals and health care design experience. We are translating that experience into a structural system that will be efficient, safe, and help the team to meet the owner's goals - providing excellent care in a supportive, healing environment. We are working closely with ZGF to provide a seamless design using BIM technology that the contractor will use to provide early procurement of structural steel, and to aid in conflict resolution. This technology has aided the collaboration that we is a trademark of our work, and is helping us to examine solutions from many different perspectives, providing our client with multiple options in the design process. The new hospital will house Pediatric Care and Intensive Care Units, Neonatal Care and Intensive Care Units, and a Pediatric Emergency Department.

The project also includes a 300 vehicle parking structure. Catena worked with ZGF to examine multiple structural framing schemes, and the relative costs and benefits of each. Our rapid analysis of each scheme during the early phases of the project enabled the Owner to review in detail the schemes, and to arrive at a timely and informed

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Christopher L. Thompson
Principal

decision. The selected scheme is a steel framed structure that includes cellular steel beams and Buckling Restrained Braces, both newer technologies that save on materials and help to achieve sustainable design practices, an important goal of the project.

Peter O. Kohler Pavilion, Oregon Health & Science University, Portland, OR: Provided structural engineering services for the $167 million Clinical Expansion project on the Marquam Hill Campus of OHSU. The project consisted of an expansion and tenant improvement of University Hospital South, a new 450-stall parking structure, and utility/roadway improvements. The site slopes steeply from north to south, with approximately 70 ft. of elevation change within the building footprint. The building has an area of approximately 300,000-sf contained in 11 stories. Surgery, radiation treatment, ambulatory clinics, and nursing units are included in the building program.

The building features an innovative hybrid floor system that resulted in an eight inch floor structure in thirty foot bays. This allowed for direct alignment of the new floors with the existing hospital with limited floor heights, and accommodated the complex mechanical systems in the ceiling spaces. The seismic resisting system features an innovative, state-of-the art moment frame with cruciform corner columns (the first such system approved by the City of Portland using FEMA 350 design techniques) which allowed for maximum flexibility in planning the space. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

OPC Utility Upgrade, Oregon Health & Science University, Portland, OR: Provided the structural design of a small addition to an existing clinic building on the OHSU campus to house a new emergency generator and associated electrical equipment for the building. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

St. John Medical Center Damage Survey, Longview, WA: Provided structural and nonstructural inspection of several of the medical center buildings for damage as a result of the February 28, 2001, magnitude 6.8 Nisqually (WA) earthquake. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Lower Columbia Regional Cancer Center, St. John Medical Center, Longview, WA: Structural design of a new 11,500-sf medical office building. The one-story wood-framed building provides additional space for the treatment of cancer patients at St. John Medical Center. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

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Christopher L. Thompson
Principal

Women's Health Pavilion, St. John Medical Center, Longview, WA: Provided design services for the one-story, 13,600-sf Women's Health Pavilion on the St. John Medical Center campus. Consisting of wood-frame construction, the pavilion houses patient examination rooms, physician office space and a resource center. This $2.2 million project was completed in Fall 2003. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Howard Hughes Medical Institute Research Laboratory, Oregon Health & Science University, Portland, OR: Performed a seismic evaluation for the partial remodel of the nine-story, 103,000-sf Medical Research Building. The evaluation utilized FEMA-178 in conformance with the new City of Portland guidelines for the mandatory evaluation of existing buildings undergoing extensive renovation. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

North Campus Master Plan, Oregon Health & Science University, Portland, OR: Performed rapid seismic evaluations of five buildings, utilizing FEMA-178, as part of OHSU's North Campus Ambulatory Master Plan. The project also involved the development of schemes that may modify buildings for implementation of the master plan. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Basic Science Building, Oregon Health & Science University, Portland, OR: Provided the seismic evaluation of a seven-story, 150,000-sf laboratory building on the OHSU campus. The evaluation utilized FEMA-178 in conformance with the new City of Portland guidelines for the mandatory evaluation of existing buildings undergoing extensive renovation. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Peace Health Professional Center, St. John Medical Center, Longview, WA: Provided the structural design of a new three-story, 150,000-sf surgery center and medical office building. The project included in-patient surgery, out-patient clinics as well as laboratory and pharmacy space. The seismic resisting system consisted of eccentric braced frames at both the perimeter and at interior locations. Also prepared early bid packages for foundation and steel to meet the owner's aggressive schedule. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Providence Newberg Medical Center, Providence Health System, Newberg, OR: Provided design services for the Providence Newberg Medical Center, a regional healthcare

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Christopher L. Thompson
Principal

facility consisting of Hospital and Medical Office Building components. The hospital consisted of a two-story, 143,000-sf structure with an additional partial ground level below and mechanical penthouse above. The hospital administration center is a two-story structure and the medical office building is a three-story, 37,000-sf structure with mechanical rooftop units that also serve the administration center.

Constructed of concrete slab on grade, the ground floor hospital houses the dietary services and building support services. The hospital first floor, constructed of both concrete slab on grade and concrete over metal deck on steel framing, houses the administration and conference center, patient registration, café dining, public lobbies and waiting area, emergency department, cardio diagnosis, diagnostic imaging, and surgery suites. The second floor of the hospital is constructed of concrete over metal deck on steel framing and houses in-patient units including rehabilitation, and mission and spiritual care. The medical office building is constructed similarly to the hospital building, with concrete slab on grade and elevated floors of concrete over metal deck on structural steel framing.

1968 Nursing Tower, St. John Medical Center, Longview, WA: Provided structural engineering services related to the renovation of the1968 Tower at PeaceHealth St. John Medical Center, an eight-story reinforced concrete frame structure that houses inpatient care services. The renovation included a 14,000-sf steel-framed addition to the emergency department and additional public spaces on each level of the building. Designed modifications to concrete shear walls to accommodate improved circulation routes and a new mechanical system, while avoiding Code-mandated seismic strengthening. The $46 million renovation project is scheduled to be constructed in phases over a five year period while the facility remains in operation. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Mark O. Hatfield Research Center, Oregon Health & Science University, Portland, OR: Provided structural engineering design services for this 14-story, 231,000-sf facility which houses biomedical research laboratories, emergency rooms, an out-patient clinic, and offices. The project included meeting the owner's fast-track schedule by preparing early foundation, concrete, and structural steel bid packages, and developing a design which accommodated construction changes inherent in this process. The research center was completed in March of 1998. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

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Christopher L. Thompson
Principal

Doernbecher Children's Hospital, Oregon Health & Science University, Portland, OR: Provided structural engineering design services for this one-of-a-kind, five-story, 260,000-sf children's hospital. The facility was constructed of a steel frame supported by long-span plate girders and bridged a canyon over an existing parking garage. The facility houses an outpatient clinic, patient rooms, nursing tower, treatment rooms, medical offices, neonatal and pediatric intensive care unit, and parking facility. The design team developed the plate girder design that resulted in approximately $300,000 in gifted material after learning of the potential gift from Oregon Iron Works. The structural system allows for maximum flexibility in the space to meet the hospital's current and evolving needs. The construction costs totaled $56 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Natividad Medical Center, Salinas, CA: Provided structural design for major new construction and minor remodeling of this 211-bed teaching hospital which is affiliated with the University of California at San Francisco School of Medicine. This three-story, 300,000-sf, free-standing facility consists of approximately 150,000-sf of inpatient services and, separate shell, core and tenant improvements. Construction costs were estimated at $42 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Saint John's Hospital and Health Center, Santa Monica, CA: Structural design of structural retrofit schemes for three hospital buildings: the 200,000-sf, eight-story south wing, the 100,000-sf, six-story main wing, and the 40,000-sf, four-story Mental Health Center. These buildings are non-ductile, concrete load bearing shear wall structures which suffered significant damage in the Northridge earthquake. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

University Hospital South C-Wing Seismic Strengthening, Oregon Health & Science University, Portland, OR: Performed a seismic analysis and designed a voluntary structural strengthening to upgrade the existing 10-story C-Wing to meet Seismic Zone 3 criteria. The seismic strengthening was phased over a thirteen year period. Phases were constructed in conjunction with modernization and renovations of the program space. The phasing plan was approved by the City of Portland with a project timeline for implementation milestones. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

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Christopher L. Thompson
Principal

University Hospital South A- & B-Wings, Oregon Health & Science University, Portland, OR: Performed a seismic analysis study for the voluntary seismic strengthening of the 14-story A- and B-Wings. Three structural alternative systems were studied. The chosen scheme combined an exterior applied steel frame that limited program disruption and interior concrete shear walls. Implemented the chosen scheme as part of additions adjacent to UHS and in conjunction with modernization and renovations to the existing program. The phasing plan was approved by the City of Portland with a project timeline for implementation milestones. The project also included the expansion of the mechanical penthouse to meet current air and ventilation needs. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Center for Research of Occupational and Environmental Toxicology, Oregon Health & Science University, Portland, OR: Performed construction administration services for this 150,000-sf building addition. Construction costs were $22.5 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

COMMERCIAL / RETAIL / HOUSING

bSIDE6 Mixed Use, Portland, OR: Providing structural design services for this seven-story, 25,000-sf mixed use development planned for Portland's East Side. The first level will contain retail tenants, the upper levels consist of office condominiums. The construction is post tensioned concrete flat plate slabs and reinforced concrete shear walls. Chris Thompson is serving as Principal-in-Charge.

Yamhill Office Lofts, Portland, OR: Providing structural design services for this seven-story, 70,000-sf mixed use building planned for Portland's East Side. The building will also include two levels of subterranean parking. The ground level will be retail use, and the upper levels will house office condominiums. The structural system will be post tensioned concrete flat plate slabs with reinforced concrete shear walls and columns. Due to local soil conditions, the building will incorporate driven piles for foundations. Chris Thompson is serving as Principal-in-Charge.

Historic Daisy Kingdom – DeSoto Building, Portland, OR: Provided structural design services for the renovation of two historical buildings to house art galleries and offices, with the upper floors housing office condominiums. The Daisy Kingdom Building is a three-story, 28,000-sf lightly reinforced concrete building constructed in 1930 with timber and concrete floors. The Desoto Building is a four-story, 31,000-sf unreinforced masonry

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Christopher L. Thompson
Principal

building built in 1914 with timber framed floors. The buildings are being joined as part of the renovation and are required to comply with the current code.

Listed on the state historic registry, Catena's structural design was sensitive to the historical fabric of the building keeping concrete shear walls away from the perimeter of the building. The design achieved the requirements of current code, without the addition of extensive foundation upgrades by modeling the soil – foundation interaction. This innovation saved the owner approximately $100,000 over the conventional design. Chris Thompson is serving as Principal-in-Charge.

Historic Telegram Building, Portland, OR: Provided design services for the renovation, addition, and seismic upgrade of this three-story (plus basement), 38,000-sf unreinforced masonry historic building in downtown Portland. The project included adding a new basement level to allow for two levels of parking and a new fourth level. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Bank of America Seismic Risk Assessments, OR and WA: Performed cursory seismic risk assessments of seven bank branches in Oregon and Washington. Building construction varies from one-story, wood frame to ten-story, nonductile concrete frame. Results of the risk assessments were used by the bank for long-term planning purposes. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Bank of America Vault Support, Eugene, OR: Designed and detailed permanent and temporary shoring for the support of a 15,000-lb vault installed at this bank branch. Work required removal and replacement of a portion of the existing masonry bearing wall. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Metro Headquarters Building, Portland, OR: Performed a seismic analysis, strengthening and renovation of a four-story, 145,000-sf concrete building. Concrete shear walls were added to the building and the adjacent parking structure to bring them into compliance with seismic zone 3 at a cost of $9.4 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Exchange Building, Seattle, WA: Provided structural engineering for a study followed by strengthening design of this 23-story concrete frame building originally built in 1929. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

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Christopher L. Thompson
Principal

Services Group of America Headquarters Building, Seattle, WA: Provided structural engineering for this five-story, 125,000-sf, steel frame office building with 25,000-sf of below-grade parking. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Nolan Ryan Office Building (Building H), NIKE World Campus, Beaverton, OR: Designed a four-story, 240,000-sf office building located on the NIKE Corporate Headquarters campus. Construction costs totaled $21 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Marathon Crown Center, Seattle, WA: Structural engineer for twin 34-story office towers totaling 1,600,000-sf with four below-grade levels of parking. The project included shoring design and underpinning for the surrounding buildings. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Pioneer Courthouse Prospectus Project, General Services Administration, Portland, OR: Provided structural engineering services for the seismic isolation of this three-story, 40,000-sf historic building with unreinforced masonry walls. Construction is on hold pending funding and is estimated at $12 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Civic Auditorium Parking Garage, Portland, OR: Performed a forensic analysis of the cause of extensive cracking in the composite floor decks of the two-story addition to the parking garage. The investigation included a review of construction documents, supplemental structural calculations on composite floors and beams, and material testing of the concrete. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Whiteriver Amphitheatre, Muckleshoot Reservation, WA: Serving as the Connection Engineer, designed all structural connections for this one-story, steel-framed pavilion and a two-story steel framed stagehouse. The project also included detailing the loads and specifications provided by the Engineer of Record for the superstructure. Structural steel elements included: braced frames, space frames, and long span roof trusses. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

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Christopher L. Thompson
Principal

Paragon Bar & Grill, Portland, OR: Provided the design of a new mezzanine and verified the adequacy of the existing roof structure for placement of new mechanical units. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

NIKETOWN, Beverly Hills, CA: Provided structural engineering services for this 32,000-sf retail outlet located near the corner of Wilshire Boulevard and Rodeo Drive in Beverly Hills. Services included the structural design of pedestrian bridges, theme walls, display cases, shoe tube supports, and stairs. In addition, loading criteria and seismic design aspects were coordinated with the landlord's structural engineer. This store was completed in 1996 for an approximate cost of $5,000,000. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

NIKETOWN, Boston, MA: Provided structural engineering services for this 30,000-sf retail outlet located at the corner of Newberry and Exeter Streets in Boston. Services included the structural design of pedestrian bridges, theme walls, display cases, shoe tube supports, and stairs. The store was completed in 1997 for an approximate cost of $4,500,000. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

NIKETOWN, Las Vegas, NV: Provided structural engineering services for this 42,200-sf retail outlet located in the Forum retail center at Caesar's Palace in Las Vegas. Services included the structural design of pedestrian bridges, theme walls, display cases, shoe tube supports, and stairs. This store was completed in 1996 for an approximate cost of $7,600,000. While at KPFF Cnsulting Engineers, Chris Thompson served as Project Manager.

The Renaissance LaConcha Hotel & Casino, San Juan, Puerto Rico: Designed this 474-room, multi-story hotel constructed of post-tensioned concrete. Scheduled to open in 2006, the property features a 15,000-sf casino, 15,000-sf of meeting space as well as three restaurants, oceanfront pool and a 5,000-sf fitness center. The project required close coordination among team members as consultants were located in four different states and Puerto Rico. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

The Condado Vanderbilt Hotel, San Juan, Puerto Rico: Designed this luxury 300-room, multi-story hotel constructed of post-tensioned concrete. Scheduled to open in 2006, the complex features 20,000-sf of meeting space, a gourmet restaurant, bistro, spa and two oceanfront pools. The project required close coordination among team members as

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Christopher L. Thompson
Principal

consultants were located in four different states and Puerto Rico. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Comfort Suites Inn, Portland, OR: Performed structural design and detailing for the replacement of existing framing members that were heavily damaged due to water intrusion of the three-story wood framed structure. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Silver Cloud Inn, Portland, OR: Provided structural design and detailing for the replacement of existing framing members that had sustained significant water damage due to water intrusion from exterior skin. The building is a three-story wood framed structure. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Smith Residence, Garibaldi, OR: Designed a two-story (plus basement) 5,400-sf house located on the Oregon coast. Situated on a severely sloped site, the house features a completely open face toward the ocean bay that required the use of steel moment frames. Combining concrete, steel moment frames, extensive use of wood and glass, this owner-built home was completed in 2001. Designed to meet Seismic Zone 4, the house had a construction budget of approximately $1 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Brett Residence, Lake Oswego, OR: Provided structural engineering services for the 10,000-sf home along the shore of Lake Oswego. The planned home is three stories and incorporates exterior masonry walls and structural steel framing to minimize shrinkage. Moment frames at the perimeter of the house allow for expansive windows that provide views of the lake. Estimated construction cost was approximately $7.5 million. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Moredaunt Apartment to Condominium Conversion, Portland, OR: Designed the renovation of an existing three-story, wood frame apartment building to change to condominiums. The basement was converted from storage space to a parking area. Removal and replacement of existing beams and columns were required to accommodate a new parking layout. Strengthened the first level floor diaphragm to accommodate the basement renovation. Also provided a seismic evaluation of the building using FEMA-178 guidelines. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

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Christopher L. Thompson
Principal

Willamette View Apartments, Portland, OR: Performed structural engineering services for the design of this two-story apartment building consisting of one- and two-bedroom units. Construction of this wood-framed building consisted of prefabricated roof trusses, gyp-board walls, and tongue-and-groove plywood floors. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Historic Multnomah Building, Portland, OR: Structural design for the seismic analysis and strengthening of this eight-level, concrete framed building originally designed as a hotel. Concrete shear walls were added and estimated construction costs totaled $12.2 million. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Columbia Shores Condominiums, Vancouver, WA: Provided structural engineering design services for the development of two, four-story, wood-framed buildings with below-grade parking. The condominium complex is located on the north shore of the Columbia River in Vancouver, Washington. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

St. James Apartments, Portland, OR: Provided structural engineering design services for this ten-story, 100,000-sf low-income/elderly housing facility. The ground level of the building houses a day care facility and retail shops. Construction consists of two-way, post-tensioned concrete slabs and concrete shear walls. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

809 Olive Way, Seattle, WA: Provided preliminary structural design for the proposed 32-story, cast-in-place, post-tensioned condominium project near the Denny Regrade area of Seattle. The lower levels of the building are planned as retail space with the twin towers used as condominium space. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.

Contemporary Crafts Tenant Improvement, Portland, OR: Provided structural engineering design services for a tenant improvement within the Daisy Kingdom – DeSoto Building. The project includes a new door, new stair, a new elevator pit and several free-standing walls intended to display artwork.

NW 8th and Couch Tenant Improvement, Portland, OR: Providing structural calculations for the support of a new steel-framed catwalk to be suspended from an existing timber

catena consulting engineers

Christopher L. Thompson
Principal

framed second floor. The project is located in a building that is an unreinforced masonry bearing wall building that has not been laterally upgraded.

Woodhill Homes Office Building, Bend, OR: Provided structural engineering design for a 10,000-sf, two-story office building. With construction costs estimated at $1 million, construction materials include concrete, steel, masonry and wood.

Adidas AIT Tenant Improvement, Portland, OR: Providing structural engineering services for a tenant improvement within the existing Adidas Building D. The work is concentrated on the third and fourth floors of the building and preliminarily consists of modifications related to an elevated track for shoe testing.

1233 Building, Portland, OR: Providing structural engineering services for the renovation of an existing building. The project includes revisions to the building entry including a new entry ramp and stairs, a new entry canopy structure, and adding an opening in an existing shear wall to expand office space.

OTHER

Triad Center, Salt Lake City, UT: Working as the prime consultant to the Church of Jesus Christ Latter Day Saints, provided seismic evaluations of a five building complex. The buildings consisted of four reinforced concrete buildings and one steel framed building and ranged from a 3 story parking garage to a ten story office building. The buildings were evaluated using ASCE 31 and non-linear pushover analysis to verify the adequacy of the existing concrete frames and shear walls to meet the Life Safety standard. Despite the conversion of the buildings from commercial use to educational use, mandatory upgrades were avoided through the use of nonlinear procedures and negotiations with the local building department. The owner realized cost savings on the order of $1 million as a result. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Parking Structure, Portland International Airport, Portland, OR: Provided ongoing forensic engineering services for one of the legal teams involved in investigating the partial collapse of the parking facility under construction at the Portland International Airport. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Seismic Evaluations, Corvallis School District, Corvallis, OR: Performed seismic evaluations on nine district elementary schools using the FEMA-310 guidelines. The cost estimates

prepared from the evaluations were used as part of a multi-disciplinary study to develop a budget for a future bond measure. The project also included a peer review of seismic evaluations performed by another consultant. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Central Catholic High School, Portland, OR: Provided the design of this 18,000-sf remodel of an existing high school building. The remodel consisted primarily of upgrades to the mechanical, electrical and architectural systems including classroom and office space. Also designed a two-story, 28,000-sf building addition. Due to the size of the building remodel, the team also provided a FEMA-178 evaluation of the entire school building. While at Degenkolb Engineers, Chris Thompson served as Principal-in-Charge.

Port of Portland, Portland, OR: Performed a study of the seismic vulnerability of 16 steel tanks used in the separation of oil from ballast water and provided a written report. While at KPFF Consulting Engineers, Chris Thompson served as Project Manager.