

ENGINEER: CIVIL-STRUCTURAL

CRAIG K. JENSEN, P.E.
Jensen Engineering &
Construction Services, LLC

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EDUCATION:

2005 Bachelor of Science, Civil Engineering: Structural Emphasis – With Honors
Washington State University, Pullman, Washington

EXPERIENCE:

2015-Present **Jensen Engineering & Construction Services, LLC**
Seattle-Tacoma, Washington

Consulting Engineer. Forensic engineering investigations to determine cause, scope of damage, repair recommendations, cost and schedule of repairs. Engineered designs including structures, mechanical attachments, fall arrest anchors, highways, hydraulics, drainage, stormwater and retaining walls. Non-destructive testing utilizing ground penetrating radar systems, x-ray and magnetic reluctance to conduct evaluations of concrete and masonry structures. Scanning to locate steel rebar, post-tensioned steel, conduit, live electrical wires, grouted/ungrouted masonry cells and slab/component thickness. Infrared thermal inspection, vibration analysis and acoustic emissions testing for leak detection.

2013-15 **Engineering Design & Testing Corp.**
Seattle-Tacoma, Washington

Consulting Engineer. Root cause determination and assessment for incidents involving commercial, retail, institutional, industrial, mining, agricultural, multi-family, residential, parking, storage, and transportation infrastructure, including materials and methods, load distribution, moisture damage, water intrusion, flooding, wind and hail damage, cracking, settlement, slope failure, sagging, vibrations and slip and falls. Code and industry standards compliance review and evaluation, including, wind, snow, flood, and seismic loads. Management services including repair schedules and cost estimates, project control, repair monitoring and business interruption evaluation.

This position included marketing, business development by pursuing new clients and maintaining existing clients, managing projects and files from

start-to-finish, invoicing, budgeting and planning for revenue and expenses, personnel management and identifying new sources of revenue.

2012-13 **Steeler, Inc.**
Seattle, Washington

Civil Engineer – Structural. Analysis, design, plan development and material selection of building frames and systems for commercial, retail, institutional, industrial, mixed-use, multi-family, and residential buildings and structures. Building and construction code compliance including wind, seismic and gravity loads, and material selection. Evaluation of existing buildings and materials including damage assessment; review of structural designs, repair options, timelines; and cost estimation. Developed testing programs, including testing of construction materials for new building products. Manufacturing processes, quality assurance, and quality control for sheet steel production.

2012 **Richmond Engineering**
Olympia, Washington

Civil Engineer – Structural and Hydraulic. Analysis, design, construction administration, and material selection for drinking water hydraulic systems and sewer pump stations, including water quality and pressure, pump capacity and code compliance. Project elements included subgrade selection, concrete foundations, retaining walls, masonry walls, plastic and metal pipes and fittings, wood framing members and corrugated metal roofs.

2010-12 **Washington State Department of Transportation**
Tumwater, Washington

Civil Engineer – Geotechnical and Project Manager. Geotechnical analysis, design, reports and recommendations for transportation structures, including bridge foundations, retaining walls, slope stability, settlement and load-bearing capacity. Soil parameters for project elements including roads, bridges, sign bridges, culverts and subsurface structures. Development of field exploration programs and laboratory testing of materials. Management services including, constructability and feasibility analysis, code compliance, planning, value engineering, scheduling, cost estimates, budgets, workforce projections and project control.

2007-09 **Coughlin Porter Lundeen
Seattle, Washington**

Civil Engineer - Structural. Design, analysis, plan development and material selection of building structural systems for commercial, institutional, educational, residential, parking, storage, and tower cranes. Designs consisted of mild reinforced and pre-stressed concrete, structural steel, cold-formed steel, wood, and masonry. Evaluation of existing structures for repairs, additions and renovations. Code compliance and determination of wind, seismic and gravity load distributions. Building elements included slab on grade, shallow and deep foundations, special concentric braced frames, special reinforced shearwalls, structural panel shearwalls, struts, chords, studs, plinths, veneer, columns, joists, diaphragms, one and two-way elevated decks, beams and slabs, composite walls and floors, mechanical attachments and cladding, and wide ranging connections of similar and dissimilar materials. Construction administration for multiple buildings, including structural observation, review and approval of PT stressing reports, shop drawings and submittals, structural sketches, site evaluation of construction conditions for contract compliance, evaluation reports, and solutions to construction obstacles.

2005-07 **Washington State Department of Transportation
Bellingham, Washington**

Civil Engineer – Highway and Hydraulics. Design, analysis, plan preparation, planning and material selection for roadway improvement projects, including culvert replacements, roadway widening and realignments, roadway geometry, and sight distance. Project elements included stormwater and hydraulic systems, hydrology, rainfall, flooding, drainage, culverts, open channel flow, foundations, retaining walls, headwalls, wingwalls, superelevations, acceleration lanes, erosion and sediment control best management practices, grading, digital terrain modeling, surveying and staking reports, earthwork cross-sections and quantification, roundabouts, mining site reclamation and permitting. Project management, including constructability and feasibility analysis, design and construction schedules, and cost estimates and value engineering. Code compliance and Americans with Disability Act requirements.

PRESENTATIONS:

Americans with Disabilities Act and Accessibility Standards,
2015, Nashville, Tennessee. Engineering Design & Testing Corp. – Fellowship Conference

Introduction to Modern Day Building Codes,
2014, Lenexa, Kansas. Engineering Design & Testing Corp. – Employee Training Program

Design and Code Compliance of Cold-Formed Steel Framing and Assemblies,
2013, Seattle, Washington. Steeler, Inc. – Employee Training Program

Design and Analysis of Rigid, Semi-Rigid, and Flexible Building Diaphragms,
2009, Seattle, Washington. Coughlin Porter Lundeen – Professional Development Seminars

NON PEER-REVIEWED PUBLICATIONS:

*Jensen, C.K., “From Sketch to Space Needle”, *The Stress Point*, Volume 28, Number 2,*
Engineering Design & Testing Corp., Columbia, South Carolina, June 2015

*Jensen, C.K., “Seismic Retrofit: Aging in a Seismic Space”, *The Stress Point*, Volume 28,*
Number 1, Engineering Design & Testing Corp., Columbia, South Carolina, March 2015

PROFESSIONAL ORGANIZATIONS:

Structural Engineers Association of Washington (SEAW)
American Concrete Institute (ACI)
American Society for Testing and Materials (ASTM)
International Code Council (ICC)
Claims and Litigation Management Alliance (CLM)

REGISTRATIONS:

Registered Professional Engineer in Arizona (#58899)
Registered Professional Engineer in California (#83759)
Registered Professional Engineer in Idaho (#15875)
Registered Professional Engineer in Nevada (#022959)
Registered Professional Engineer in Oregon (#88920)
Registered Professional Engineer in Texas (#118002)
Registered Professional Engineer in Washington (#48179)
National Council of Examiners for Engineering and Surveying (# 55828)
Haag Certified Inspector – Residential Roofs (# 201401117), Inactive
Haag Certified Inspector – Commercial Roofs (# 201401117), Inactive

PARTIAL PROJECT LIST:**Nintendo of America,
Parking Garage**

Responsible for gravity engineering calculations, plan sheets and details for a four-story post-tensioned concrete parking garage in Redmond Washington. This included concrete slabs on grade, elevated post-tensioned & mild reinforced concrete slabs



and beams, isolated, strip, elevator and construction crane footings, basement walls, interior masonry walls, steel canopy & stair framing.

**King Co. Fire District,
Fire Station
Headquarters**

Responsible for lateral engineering calculations, plan sheets and details for a two-story fire station in Kenmore Washington. The building consisted of truck bays, a two story living quarters, and lobby. The lateral

system was a combination of steel concentric braced frames, special reinforced concrete shear walls, and wood structural panel shear walls. The design also included wood struts, diaphragms, chords, studs, concrete combined footings, plinths, steel canopies, masonry veneer, and wind & seismic loading.

Microsoft, Office Buildings

Responsible for construction administration of two four-story post-tensioned office buildings located in Redmond Washington. The buildings were flat plate post-tensioned concrete slabs with special reinforced concrete shear walls and round concrete columns. Duties included liaison to the Architect and Contractor, attending meetings, site visits and reports, maintaining organized records, review and approval of post-tensioned stressing reports & shop drawings, submittals, and providing solutions to construction obstacles by providing responses to RFI's & structural sketches.

**Seattle Public Schools, Nathan Hale HS**

Responsible for gravity and lateral engineering calculations, plan sheets, and details for the addition and renovation of two school buildings in Seattle Washington. Duties included mild reinforced concrete beams and slabs, special reinforced shear walls, diaphragms, steel

struts, and seismic loads. This also included construction administration tasks such as liaison to the Architect and Contractor, attending meetings, site visits and reports, answers to RFI's, and review and approval of shop drawings & submittals.

Construction Admin., Microsoft Office Building 94 in Redmond, Washington
Construction Admin., Nathan Hale High School Library Renovation in Seattle, WA
Construction Admin., South Medford High School Classrooms in Medford, Oregon
Structural Design, Microsoft Office Building 244 in Redmond, Washington
Structural Design, Microsoft Office Building 245 in Redmond, Washington
Structural Design, MS Office Bldg. & Underground Parking Garage in Redmond, WA
Structural Design, Omak High School Concession Stand in Omak, Washington

Structural Design, Issaquah High School Multi-Use Building in Issaquah, Washington
Structural Design, Nathan Hale High School Weight Room Addition in Seattle, WA
Structural Design, Nathan Hale High School Library Renovation in Seattle, WA
Structural Design, Lone Pine Elementary Gymnasium in Medford, Oregon
Structural Design, Lone Pine Elementary Classrooms in Medford Oregon
Structural Design, Talus Corporate Center Parking Garage in Issaquah, Washington
Hwy Design, State Route 548 Terrell Creek Culvert Replacement in Blaine, WA
Hwy Design, State Route 20 Safety & Preservation in Burlington, Washington
Hwy Design, State Route 11 Chuckanut Safety & Preservation in Burlington, WA
Hwy Design, State Route 20 Barrier Creek Slope Stabilization in Washington
Hwy Design, State Route 20 Red Cabin Creek Bridge Replacement in Burlington, WA
Hwy Design, State Route 9 Roundabout in Burlington, Washington
Hwy Design, State Route 546 Badger Road Paving in Lynden, Washington
Hwy Design, State Route 542 Baptist Creek Fish Passage in Deming, Washington
Hwy Design, State Route 542 High & Hedrick Creek Fish Passage in Bellingham, WA
Hwy Design, State Route 9 Realignment and Widening in Sumas, Washington
Hwy Design, State Route 539 Guide Meridian Widening in Bellingham, Washington
Hwy Design, State Route 539 Guide Meridian Widening in Lynden, Washington
Hwy Design, Interstate Route 5 On/Off Ramps through Bellingham, Washington
Hwy Design, Interstate Route 5 Joe Leary to Nulle Road Paving in Burlington, WA
Hwy Design, Interstate Route 5 Seattle Sign Structures in Seattle, Washington
Geotech Design, Interstate Route 5 Mellen Sign Structures in Centralia, WA
Geotech Design, Interstate Route 5 Columbia River Crossing on border of OR and WA
Geotech Design, US Route 97 Butler Bridge/Slope Replacement in Goldendale, WA
Investigation-Accessibility & Code Evaluation, Medical Facility in Albany, Oregon
Investigation-Safety Evaluation, Slip and Fall in Rochester, Washington
Investigation-Cause of Failure, Mobile Zip Line in Puyallup, Washington
Investigation-Cause of Failure, Freezer Door in Seattle, Washington
Investigation-Cause of Failure, Sitting Chair Leg Fracture in Tukwila, WA
Investigation-Cause of Failure, Asphalt Batch Plant Collapse in Las Vegas, Nevada
Investigation-Collapse Evaluation, Residence in Point Roberts, Washington
Investigation- Repair Recommendations, Fire at Concrete Batch Plant in Flagstaff, AZ
Investigation-Repair Recommendations, Mobile Home in Nespelem, Washington
Investigation-Scope of Storm Damage, Condominium Complex in Scottsdale, Arizona
Investigation-Scope of Storm Damage, Residence in Redmond, Washington
Investigation-Cause of Damage, Mobile Home Roof in Yakima, Washington
Investigation-Cause of Damage, Residence Roof in Puyallup, Washington
Investigation-Cause of Damage, Residence Roof in Belfair, Washington
Investigation-Cause of Damage, Residence Wall in Harrisonville, Missouri
Investigation-Cause of Damage, Warehouse Roof in Lakewood, Washington
Investigation-Scope of Moisture Damage, Commercial Bldg. in Everett, Washington
Investigation-Cause of Moisture Damage, Apartment Complex in Hillsboro, Oregon
Investigation-Cause of Moisture Damage, Church in Bellingham, Washington
Investigation-Cause of Moisture Damage, Apartment Bldg. in Lynnwood, Washington

Investigation-Cause of Water Intrusion, Residence in Olympia, Washington
Investigation-Cause and Scope of Damage, Residence Siding in Olympia, Washington
Investigation-Cause of Sewer System Backup, Commercial Bldg. in Puyallup, WA
Investigation-Cause of Wall Cracking, Residence in Oak Harbor, Washington
Investigation-Assessment of Foundation Cracking, Residence in Puyallup, Washington
Investigation-Cause of Tile Floor Damage, Residence in Pasco, Washington
Investigation-Cause of Ground Slope Failure, Residence in Olympia, Washington
Investigation-Cause of Cracking, Earth Retaining Structure in Springfield, Missouri
Investigation-Cause of Failure and Repair Estimate, Swimming Pool in Spokane, WA
Investigation-Cause of Fire Suppression System Failure, Comm. Bldg. in Seattle, WA
Investigation-Fire Cleanup Protocol, Warehouse in Seattle, Washington
Investigation-Scope of Blast Damage, Residence in Bellingham, Washington
Investigation-Cause of Explosion, Mix Use Building in Houston, Texas
***Investigation-Collapse Consulting, Commercial Bldg. in Fremont, Nebraska**
***Investigation-Cause of Roof Collapse, Commercial Bldgs in Shawnee, Kansas**
***Investigation-Cause of Ceiling Collapse, Hotel in Rogers, Arkansas**
***Investigation-Cause of Collapse, Steel Frame in Kansas City, Kansas**
***Investigation-Scope of Storm Damage, Commercial Bldg. in Parkville, Missouri**
***Investigation-Scope of Storm Damage, Commercial Bldg. in Olathe, Kansas**
***Investigation-Scope of Storm Damage, Commercial Bldgs. in Woodward, Oklahoma**
***Investigation-Scope of Fire Damage, Residence in Shawnee, Kansas**
***Investigation-Scope of Damage, Fallen Tree at Residence in Overland Park, Kansas**
***Investigation-Scope of Storm Damage, Airplane Hangers in Kearney, Nebraska**
***Investigation-Scope of Fire Damage, Industrial Building in Kansas City, Missouri**
***Investigation-Scope of Flood Damage, Apartment Complex in Overland Park, Kansas**
***Investigation-Scope of Fire Damage, Apartment Building in Kansas City, Missouri**
***Investigation-Cause of Roof Damage, Residence in Kansas City, Missouri**
***Investigation-Cause of Tile Roof Damage, Residence in Overland Park, Kansas**
***Investigation-Cause of Wall and Floor Cracks, Warehouse in Lenexa, Kansas**
***Investigation-Cause of Floor Damage, Warehouse in Riverside, Missouri**
***Investigation-Cause and Scope of Damage, Industrial Buildings in Dallas, Texas**
***Investigation-Cause and Scope of Damage, Industrial Buildings in Irving, Texas**
***Investigation-Cause of Wall Failure, Commercial Bldg. in San Francisco, California**
***Investigation-Cause of Damage, Office Building in Omaha, Nebraska**
***Investigation-Cause of Collapse, Fertilizer Storage Structures in Overland Park, KS**
***Investigation-Cause of Damage, Event Center in Hobbs, New Mexico**
***Investigation-Scope of Damage, Wood Bridge in Clark County, Kansas**
***Investigation-Cause of Failure, Earth Retaining Structure in Belleville, Illinois**
***Investigation-Cause of Collapse, Earth Retaining Structure in Fort Leavenworth, KS**
***Investigation-Cause and Scope of Damage, Grain Silos in Watson, Missouri**
***Investigation-Cause of Floor Damage, Animal Shelter in Jefferson, Missouri**
***Investigation-Cause of Basement Wall Cracking, Residence in Overland Park, Kansas**

* Projects marked with an asterisk were completed as part of a training program

CONTINUING EDUCATION:

Rebar Locating for Pinned Precast Traffic Barriers Utilizing GPR and Magnetic Reluctance
JEC Services LLC, 2015, Des Moines, Washington

Radar Inspection of Concrete, The Handbook
JEC Services LLC, 2015, Des Moines, Washington

Ground Penetrating Radar for Structural Applications Utilizing Hilti X-Scan PS 1000 System
Hilti, 2015, Seattle, Washington

Ground Penetrating Radar, Inverse Scattering and Data Processing
JEC Service LLC, 2015, Des Moines, Washington

Depositions 101
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Successfully Defending Construction Site Accidents
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Hurricane Sandy, Lessons Learned
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Asbestos Litigation
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Investigation and Discovery of a Construction Defect Claim
Claims and Litigation Management Alliance, 2015, Seattle, Washington

Key Concepts to Aid in Evaluation of Earthquake Damage
Engineering Design & Testing Corp., 2015, Nashville, Tennessee

Building Failures During Winter – On Thin Ice
Engineering Design & Testing Corp., 2015, Nashville, Tennessee

Federal Rules of Civil Procedure, Rule 26 – Expert Reports
Engineering Design & Testing Corp., 2015, Nashville, Tennessee

Structural Analysis Methods for Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Bridge Design and Code Requirements
Structural Engineers Association of Illinois, 2015, Chicago, Illinois

Wind Analysis and Design of Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Seismic Design for Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Reinforced Concrete Design for Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Prestressed Concrete Design for Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Masonry Design for Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Structural Steel Design for Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Wood Design for Buildings and Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Design of Foundations and Earth Retaining Structures
Structural Engineers Association of Washington, 2015, Seattle, Washington

Bridge Design
Structural Engineers Association of Washington, 2015, Seattle, Washington

Steep Roof Access Training
Engineering Design & Testing Corp., 2014, Charlotte, North Carolina

Building Science and Infrared Thermal Imaging
International Association of Certified Home Inspectors, 2014, Online

Structural Issues for Home Inspectors
International Association of Certified Home Inspectors, 2014, Online

25 Standards Every Inspector Should Know
International Association of Certified Home Inspectors, 2014, Online

Inspection for Moisture Intrusion
International Association of Certified Home Inspectors, 2014, Online

Design and Renovation of Wood Structures
American Society of Civil Engineers, 2014, San Mateo, California

Professional Report Writing
Engineering Design & Testing Corp., 2014, Lenexa, Kansas

The Construction Site and Conflicts
Engineering Design & Testing Corp., 2014, Salt Lake City, Utah

Credentials in Litigation
Engineering Design & Testing Corp., 2014, Salt Lake City, Utah

A Guide to the Investigation of Imminent Collapse
Engineering Design & Testing Corp., 2014, Salt Lake City, Utah

Steel Connection Design and Failure Analysis
Engineering Design and Testing Corp., 2014, Salt Lake City, Utah

Certified Inspector Program – Commercial Roofs
Haag Engineering Company, 2014, Minneapolis, Minnesota

Certified Inspector Program – Residential Roofs
Haag Engineering Company, 2014, Minneapolis, Minnesota

Concrete Distress and Deterioration: Symptoms and Causes
PDHEngineer, 2013, Online

Confined Spaces and OSHA Regulations
Etraintoday, 2013, Online

Equivalent Coatings: Codes, Standards, and Corrosion Protection
Steel Framing Industry Association, 2013, Webinar

Cold-Formed Steel and Mid-Rise Construction
Steel Framing Industry Association, 2013, Webinar

Approving or Selecting Building Products with Confidence
International Code Council, 2013, Webinar

Cold-Formed Steel and Sustainability
Steel Framing Industry Association, 2013, Webinar

A Guide to High Performance Cold-Formed Steel Assemblies
Steel Framing Industry Association, 2013, Webinar

Rehabilitation of Existing Structures
Coughlin Porter Lundeen, 2009, Seattle, Washington

Post-Tension Building Design and Construction
American Society of Civil Engineers, 2008, Seatac, Washington

The Transportation Design Academy
Washington State Department of Transportation, 2007, Seattle, Washington

Advanced Project Management
Washington State Department of Transportation, 2007, Seattle, Washington

Project Management Process
Washington State Department of Transportation, 2007, Seattle, Washington

Introduction to Project Inspecting
Washington State Department of Transportation, 2007, Seattle, Washington

Project Scheduling Methods and Software
Washington State Department of Transportation, 2007, Seattle, Washington

Project Delivery Information System
Washington State Department of Transportation, 2007, Seattle, Washington

Contract Plans & Estimate Preparation
Washington State Department of Transportation, 2006, Seattle, Washington

Certification in Construction Site Erosion & Sediment Control
Washington State Department of Transportation, 2006, Seattle, Washington

Roundabout Design
Michael Baker International, 2006, Seattle, Washington

Design Documentation
Washington State Department of Transportation, 2006, Seattle, Washington

MGSFlood Software
Washington State Department of Transportation, 2005, Seattle, Washington

Highway Drainage
Washington State Department of Transportation, 2005, Seattle, Washington

Basic Highway Capacity
Transpeed, 2005, Seattle, Washington

Roadway Geometric Design
Transpeed, 2005, Seattle, Washington