

## MY METRIC

Be the Maximum Resource Multiplier I can be. Every day.

## METHODS

Design for Tomorrow. Define and Implement Vision. Transform. Uplift. Innovate. Ensure Quality. Communicate!

## EXPERTISE

Broad and deep experience in:

- Roadway, Site, and Drainage Engineering
- Bentley Civil Software Design, Production, and Administration
- Uplifting Bentley Civil Users via training, coaching, and consulting
- Training and Curricula Development (innovative and Learning Theory-based)
- Communication – Synchronous and Asynchronous (In-person and documentation/media/webs)

## QUALIFICATIONS

**Registered Civil Engineer** (CA) specializing in Highway, Drainage and Site, with over 8 years of direct design responsibility; continual indirect involvement.

**Engineering Services Entrepreneur** – 10+ years of independent Engineering Software Consulting with full responsibility for Content Development, Sales, Marketing, Customer Relations, and Project Management

**Engineering Systems Analyst and Leader** – Over twenty years of Support, Training, Implementation, Consulting for Intergraph and Bentley Civil Design Solutions. Central to developing and delivering Training for Bentley OpenRoads and Subsurface Utilities Software since its inception.

## EXPERIENCE SUMMARY

**Independent Bentley Civil Software Consultant** (1995-2005, and Current) see: [CivilXLr8.com](http://CivilXLr8.com)

- **Over 30 years** dedicated to maximizing individual and enterprise-wide efficiency in Bentley Civil Software at private companies and local and state-level government agencies.
- Working with production teams, expert teams and management to guide innovation and implementation – road & drainage
- Providing fast turnaround for broad-scope on-site, in-person solutions for small groups and very large agencies (“hotshotting”)
- Leading Needs Assessments, Migration, Update, Implementation, Training and Maintenance plans and services for offices, corporations and agencies.
- Authoring Innovative Road and Drainage Training Courses – independently, for-hire, “traditional” and multi-media

**Parsons Corporation** (2021-2023) I worked on these MegaProjects

- US-183 North Mobility Project, Austin TX: ProjectWise-Managed Roadway&Drainage Rehabilitation. I worked Drainage using OpenRoads Drainage and Utilities software.
- Edmonton Light Rail Transit, Valley Line West, Edmonton, Alberta: Light Rail Extension through downtown Edmonton. I worked modeling existing and new Subsurface Utilities using ORD Drainage and Utilities. Note this is absolutely a subdiscipline where moving chaotically-source data to the (extended) OpenRoads Data Model (Item Types) yields huge benefits in schedule, cost and quality. Utilities is so well-suited for OpenRoads BIM and Digital Twins capability.
- JFK Airport Redevelopment, New York: Multi-discipline \$19 billion project. I worked drainage modeling and design in Civil3D, SSA, and supporting programs.

Other opportunities at Parsons included

- Leading the drainage portion of a segment of a \$570M highway expansion project bid (which we one). FAST detailed modeling for estimates!
- Using Teams to share new Best Practices for OpenRoads Drainage

**Bentley Systems** (2008-2021)

- Last Position: Blueprints Portfolio Manager for Engineering Applications (OpenRoads, OpenRoads Drainage and Utilities, and associated Civil Industry products) – transforming how we deliver Training and Consulting Services. We are streamlining internal business processes and preparing a transformation in our public-facing content offerings. (One initiative (constrained to current systems) is visible at Onboarding Wiki).
- Previous: Civil Training Content Development Manager; Content Author, Trainer, and Senior Consultant (OpenRoads, OpenRoads Drainage, etc.).
- Designed training and content framework; authoring first editions of: Advanced InRoads, InRoads Site Modeler, OpenRoads Roadway Training, OpenRoads Site Modeling, several Drainage courses.
- Designed, developed and delivered MicroStation, InRoads, OpenRoads, and StormCAD, CivilStorm training

## DESIGN ENGINEERING HIGHLIGHTS

### Modern MegaProjects

**US183 Austin, TX.** OpenRoads workflow and workspace development to support Drainage Design and Sheet Production and Annotation. Production Support.

**City of Edmonton Valley Line West LRT.** 3D Dry Utilities Modeling, Conflict Detection, Sheeting. Workflow streamlining.

**JFK Airport Redevelopment.** Transportation, drainage and utility redevelopment *in Civil3D*. I focused on drainage modeling.

### Highway Engineering

I-805 10+4 Widening, Managed Lanes, Kimley-Horn & Associates, Inc., San Diego, CA, August 2007 – May 2008. Roadway Design using InRoads.

I-5 10+4 Widening, I-15 Managed Lanes at Via Rancho Parkway, CalTrans Staff Augmentation Contract working on-site in the CalTrans District Office, San Diego, CA, May 2005 – December 2006. Intersection Design in CAiCE and InRoads, Drainage Design via InRoads Storm&Sanitary.

*Horizontal and Vertical Geometry, Cross Sections, Quantities, Earth Volumes, Plans Production; Drainage Design in InRoads and CAiCE.*

SR-54/SR-125 Gap Connector & Interchange, PBQ&D (contract), San Diego, CA, 2002,

*Interchange Modeling, Multiple Superelevated Ramps and Mainlines, Retaining Walls, Bridge Abutments*

Foothill Transportation Corridor South, PBS&J (contract), Orange County, CA, 2001-2002,

*18+miles Corridor Studies including interchanges and complex slope treatments in mountainous terrain*

I-4/Conroy Interchange, HNTB, Orlando, FL, 1995,

*Urban Interstate Interchange, modeling and plans production (up to 60% plans).*

SR-20, HNTB, Appalachicola, FL, 1993,

*Rural Highway upgrade from two lanes to divided 4 lanes.*

### Site and Drainage Engineering

Spring Creek Shoppes, Dieter Engineering Services, Orange Park, FL, 1990-1991,

*Project Manager, Sole Designer; Site Layout and Design; Grading/Drainage System Design; Utility Layout*

Orange County Public Schools - Additions, Ivey Harris & Walls, Orlando FL, 1992-1993,

*Project Engineer for school additions: grading, layout and drainage design and permitting.*

### Land Surveying

Miscellaneous Site, Topo, As-Built, and Stakeout Projects, Dieter Engineering Services, Orlando, FL;

## SOFTWARE LEADERSHIP HIGHLIGHTS

Civil Training Development, Bentley Systems, May 2008 – November 2021.

- *Blueprints Portfolio Manager – multi-discipline internal and public transformation of training and services delivery.*
- *Content Development Manager for Multimedia Training Systems for InRoads, OpenRoads, Subsurface Utilities and Drainage*
- *On-site Training and Implementation Consulting for Bentley Civil Infrastructure and Drainage Solutions*

InRoads Configuration Lead, Port of Long Beach, Bentley Software Implementation, March-May, 2008

- *Interviewed Principals for Scope of InRoads Configuration*
- *Developed scope and conventions for InRoads Configuration*
- *Authored the initial Configuration file*
  - *Provided Survey Feature Import implementation to new POLB standards*

Roadway Software Lead, Kimley-Horn & Associates, Inc. San Diego, CA, July 2007-May 2008

- *Led Needs Assessment of Technical Groups*
- *Designed and Implemented the regional migration from MicroStation/J/InRoads v8.2 to MicroStation/InRoads v8.9*
- *Envisioned and Authored the 200+ webpage KHA On-Line Roadway Training system.*

Technical Manager, Colorado DOT conversion from AutoCAD to MicroStation/InRoads, Initial Production Configuration (2004-2005).

- *Led Needs Assessment Interviews of Technical Groups*
- *Designed the modular MicroStation Environment Configuration to*
  - *streamline conformance to state standards*
  - *facilitate the management of functional group variations and*
  - *allow consultants easy use of CDOT managed environment*
- *Managed the InRoads Configuration project, building in streamlined quality control tools.*

Technical Manager, Oklahoma DOT MicroStation v8 / InRoads v8.4 Migration (2003-2004).

- *Managed Client Expectations and Led User/Management Feedback Process for all InRoads-related issues.*
- *Conceived and Implemented Intranet for Feedback coordination and On-Line Learning, including Multimedia Demos and User Labs.*
- *Developed, Managed and Coordinated InRoads and InRoads Survey Settings and Interface upgrade*

Technical Lead for City San Diego Wastewater Facilities implementation of InSewer and Migration to Storm&Sanitary (San Diego Data Processing/Logjam Solutions, 1995-2000).

- *Provided technical and operational guidance in development of InSewer and Storm&Sanitary implementation (100+ users)*
- *Authored the Training Manuals and class dataset, taught the initial classes and “trained the trainers.”*
- *Certified software technical accuracy, methodology, and compliance with City requirements; liaison with vendor programmers*
- *Project Manager for Storm&Sanitary Migration Project and for Engineering Application Services (1999-2000).*

### **Training and Presentations**

Conceived and Implemented Innovative On-line Learning Systems (Kimley-Horn & Associates, Inc. 2007-8; OkDOT, 2004)

Authored innovative and effective training manuals for InRoads and Storm&Sanitary (and precursors) since 1995.

Provided Training for InRoads Suite software to engineering firms, training companies and government agencies since 1995.

Presented Lectures, Workshops and Classes at Intergraph/Bentley Conferences from Spring 2000 to 2004 and 2008 to present.

### **Software Development, Certification and Support**

Certification and Support Team Leader at Intergraph Corporation (1992-1993) for hydraulics and bridge geometry software

- *Assured quality of certification process; Verified accuracy and methodology; Developed expanded hydraulic analysis capabilities.*

Chaired Intergraph/Bentley’s Water Resources Steering Subcommittee (1999-2004).

Author of *Ini Manager* – a VB program to manage InRoads settings and maintain QC standards in a distributed environment.

### **EMPLOYMENT HISTORY**

<i>Sep 2023 – current:</i>	<u>CIVIL XLR8</u> , San Diego, CA	Engineering Software Consulting
<i>Nov 2021 – Aug 2023:</i>	<u>PARSONS CORPORATION</u> , San Diego, CA	Supervising Drainage Engineer
<i>May 2008 – Nov 2021:</i>	<u>BENTLEY SYSTEMS, INC.</u> , San Diego, CA	Senior Civil Engineering Consultant
<i>Jul 2000 – May 2008:</i>	<u>CIVIL XLR8</u> , San Diego, CA	Engineering Software Consulting
<i>Jul 2007 – May 2008:</i>	<u>KIMLEY-HORN &amp; ASSOC. INC.</u> , San Diego, CA	Engineering/Software Training
<i>Apr 2005 – Dec 2006</i>	<u>CH2MHill/CalTrans</u> , San Diego, CA	Highway/Drainage Engineering
<i>Jul 1998 – Jun 2000:</i>	<u>SAN DIEGO DATA PROCESSING CORP.</u> , San Diego, CA	Engineering Software Consulting
<i>Mar 1995 – Jul 1998:</i>	<u>LOGJAM SOLUTIONS, INC.</u> , Orlando, FL	Engineering Software Consulting
<i>May 1993 - Mar 1995:</i>	<u>HNTB CORPORATION</u> , Orlando, FL	Highway Engineering, S/W Customization
<i>Feb 1992 - Apr 1993:</i>	<u>INTERGRAPH CORPORATION</u> , Huntsville, AL	Software Certification/Development
<i>Jul 1991 - Feb 1992:</i>	<u>IVEY, HARRIS &amp; WALLS, INC.</u> , Orlando, FL	Site Engineering
<i>Jun 1989 - Jun 1991:</i>	<u>DIETER ENGINEERING SERVICES</u> , Orlando, FL	Site Engineering, Land Surveying

### **EDUCATION and REGISTRATION**

*Aug 1985 - May 1989:* University of Florida. Gainesville, FL. Bachelor of Science in Civil Engineering.

*July 1983 - May 1985:* United States Air Force Academy. Colorado Springs, CO.

Professional Engineer: California #C58101