

27th Annual Road Design Conference
Infrastructure Innovation in a Dynamic Environment

Day 1 - Tuesday - November 1st, 2016

Conference Kick-Off -Technology Day Training Presented by Autodesk® Inc.

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| 8:00am-9:00am | Registration and Full Breakfast (provided) | Centennial Ballroom |
| 9:00am | Welcome: Keith Warren, Autodesk® & Jim Ayres, P.E., CRAB | Stehekin A & B |
| 9:00am-10:30am | <p>The Future of Making Things Autodesk is leading the infrastructure industry's business process transformation to BIM and improving the built environment and the means by which it was created. Presentation on this transition and how small agencies can take advantage of these changes.</p> <p>Presenter: Dave Simeone, Autodesk, Senior Product Manager, Civil 3D Products</p> | Stehekin A & B |
| 10:30am-11:00 am | Break | Centennial Ballroom |
| 11:00am-12:00pm | <p>Civil3D Update on current release enhancements, tips & tricks, grading, corridor & intersection design.</p> <p>Presenter: Dave Simeone, Autodesk, Senior Product Manager, Civil 3D Products</p> | Stehekin A & B |
| 12:00pm-1:00pm | Lunch (provided) | Centennial Ballroom |
| 1:00pm-2:15pm | <p>InfraWorks 360 Presentation on updates of current release enhancements, importing data sources from LiDAR files, utilizing drone data sources, and point cloud capabilities. Also, improvements to roadway design capabilities.</p> <p>Presenter: Sarah Cunningham, P.E., Autodesk, Product Line Manager, InfraWorks 360</p> | |
| 2:15pm-2:30pm | Break (cookies and sodas) | Centennial Ballroom |
| 2:30pm-4:00pm | <p>Drone to Design Presentation of a workflow that supports moving quickly from survey to design.</p> <ul style="list-style-type: none"> • Capture the site data in hours using a drone and camera instead of days with traditional survey. • Process the photos in ReCAP 360 and Autodesk ReMake. • Bring point cloud into InfraWorks 360 as a bare earth topo, and classify linear and vertical stacked features. • Begin the preliminary design portion of the project. <p>Presenter: John Sayre, Technical Marketing Manager, Civil Infrastructure</p> | Stehekin A & B |
| 5:00pm-7:00pm | Hospitality (Appetizers provided-Dinner on your own) | Suite 5423 |

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Day 2 - Wednesday- November 2nd, 2016

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| 8:00am-9:00am | <p>Registration with Full Breakfast (provided)</p> <p>Vendor Exhibits Open</p> | Centennial Ballroom |
| 9:00am-9:15am | <p>CRAB Staff Introductions</p> <p>Welcome: Jay Weber, Executive Director, County Road Administration Board – “The Future of the Road Design Conference” County Host Welcome: Mr. Eric Pierson, Chelan County Engineer.</p> | Centennial Ballroom |
| 9:15am-10:00am | <p>Katherine Rowden, Service Hydrologist National Weather Service/NOAA Introduction by As we know, floods follow fires, and with the marked increase recently in the size and intensity of wildfires, this phenomenon is taking a much larger toll on people, infrastructure, and local budgets. Katherine will go over the unique issues of post-fire flooding and how to get the information needed to prepare for the impacts. <i>(Note: this presentation is a follow up to last year’s presentation by Chelan County Engineer Eric Pierson on the Assessment of the Chelan & Okanogan Complex Fires. “After the Smoke Clears” - Risks and issues after the fire and what realistically can be done from a County Public Works standpoint)</i></p> | Centennial Ballroom |
| 10:00am-10:30am | <p>Dave Simeone, Autodesk® Senior Product Manager, Civil 3D Products “Look ahead at Future Infrastructure Technologies Roadmap to Autodesk’s Future”</p> <p>Infrastructure is a technical-sounding word that describes so much that matters in our daily lives. It may sound like something that happens somewhere else, but infrastructure includes our homes and the pipes that bring water to our faucets; the roads, trains, buses and bike or pedestrian paths that take us where we need to go; the electricity that fuels our daily lives and our gadget addictions; the transit system that allows goods to move from one place to another and transactions to move at the speed of a click or swipe. Infrastructure matters to our public health and safety, to our families and our communities, to our economy and much more. We here at Autodesk provide software solutions to many of these issues of today and for tomorrow.</p> | Centennial Ballroom |
| 10:30am-11:00am | <p>Break</p> | |

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| 11:00am-12:00pm | <p>Roundtable: This is your opportunity to sit down with County and Autodesk personal who are the decision makers and managers of the processes and software that many of you use on a daily basis. Discuss and listen to your and other county user's thoughts about the software and what you sense can make it better. Topics of discussion on the table will range from general everyday topics as well as the overall big picture that each of your county offices deal with. Participants will spend 30 minutes per table then move to the next roundtable discussion group.</p> | | Centennial Ballroom |
| | <p>Roundtable 1 Design Practice & Systems View</p> <p>County Personnel Moderators: Vasile Borota and Matt Balder, Thurston County, Kelly Boyd, Pierce County</p> <p><u>Design Practices</u> - Focus will be on day to day design practices:</p> <ul style="list-style-type: none"> • Project Workflow • Sustainability • Accelerated project delivery • How do you assemble point clouds, 3D reality meshes, images, GIS, terrain data, and with other departments/sources to create intelligent models? • What are your current Stormwater concerns? • Preparation and interpretation of contract documents • Consultant selection process. <p><u>Systems View</u> - Focus here will be on the big picture:</p> <ul style="list-style-type: none"> • Cost analysis to identify high-cost and high-risk items • What is the required data for input-output and goals in your county systems thinking? • Are you involved with building information modeling versus site information modeling process? • Does your county have a long-term plan for project management/systems engineering? | <p>Roundtable 2 Autodesk Software AutoCAD, Civil 3D, Map3D, and Infraworks 360</p> <p>Autodesk Team Moderators: Sarah Cunningham, P.E., Keith Warren, John Sayre, & Steve Stamatoplos</p> <p>Topic Suggestions</p> <ul style="list-style-type: none"> • User wish list • Productivity enhancements • Performance improvements • Backwards file compatibility • Plotting production output • Styles template files • Best hardware configuration • Modeling with Civil 3D • Project management tool • Data exchange with Civil3D • New modules for Infraworks 360 • Benefits of conceptual design • Will Infraworks eventually be transforming into Civil3D? | |
| 12:00pm-1:00pm | Lunch (provided) | | Centennial Ballroom |

| Choose One: | Surveyor's Track - Park Room | Engineer's Track - River Room |
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| 1:00pm-1:45pm | <p>Patrick J. Beehler, PLS, Washington State Surveyor, Engineering & General Services Division, Washington Department of Natural Resources</p> <p>Topic: "Boundaries and Monumentation" Mr. Beehler's presentation will cover the background on the historical development of the Public Land Survey System (PLSS) and the need to preserve the monumentation that controls boundaries.</p> | <p>Richard Mfuko, Vice President-Andale Construction Inc. & ACEiT Industries, Inc. Quality Control Manager-Andale Ready Mix Central Inc. Wichita, KS</p> <p>Topic: "RCC Broom Finish Technology" Recently developed additives are making roller compacted concrete (RCC) more viable than ever for county roads. These folks have now managed to figure out how to get the <i>lifespan, surface finish, and smoothness of traditional concrete pavement</i>, combined with the initial cost of HMA. Great application for high volume paving jobs with no (or at least new) utilities. In this session Richard will show off award winning RCC with Broom Finish project for the City of Bel Aire, Kansas. This is the first time that the American Concrete Pavement Association has given out the award to a non PCC project.</p> |
| Repeat: | Surveyor's Track - Park Room | Engineer's Track - River Room |
| 2:00pm-2:45pm | Topic: "Boundaries and Monumentation" (Repeat) | Topic: "RCC Broom Finish Technology" - (Repeat) |
| 2:45pm-3:00pm | Break (Sodas & Cookies) - Centennial Ballroom | |
| Choose One: | Surveyor's Track - Park Room | Engineer's Track - River Room |
| 3:00pm-3:45pm | <p>Richard Hill, Emerging Technology Lead, PPI Intelligent Compaction; 3D Laser Scanning; Mobile Mapping; UAVs; Serving AEC - MEP - Law Enforcement Professionals</p> <p>Topic: "Managing Point Clouds - A workflow that works!" Richard will be presenting on the Topcon GLS-2000 laser scanner, its capabilities and benefits. He will then follow up by showing data in Autodesk ReCap 360 Pro software. At the end of the presentation you will be able to better manage your large datasets to prepare your data for Civil3D, Revit, and Infracore 360 as well as a summary of what point cloud features each Autodesk software now has.</p> | <p>Shawn Cox, PacifiCAD Senior Technical Specialist, Infrastructure Solutions</p> <p>Topic: "Animate Your Infrastructure: Learn to Leverage Your Existing Autodesk Design Software and the Web to Find and Animate 3D Models for Use in Infracore" Shawn Cox, Senior Civil Application Specialist with PacifiCAD, will show new and existing Autodesk Infracore users how to bring models from the free internet repository, 3D Warehouse, into an Autodesk software environment, where they can be animated, before finally being imported into Infracore, where they can be used and viewed in live presentations, and video renderings.</p> |
| Repeat: | Surveyor's Track - Park Room | Engineer's Track - - River Room |
| 4:00pm-4:45pm | Topic: "Managing Point Clouds - A workflow that works!" (Repeat) | Topic: "Animate Your Infrastructure: Learn to Leverage Your Existing Autodesk Design Software and the Web to Find and Animate 3D models for Use in Infracore" (Repeat) |
| 4:45pm-5:15pm | Bonus Presentation: "Swept Path Analysis using Autodesk Vehicle Tracking and workflows within Civil 3D and Infracore" - Kevin Closson PPI - Park Room | |
| 5:30pm-7:00pm | Hospitality (Appetizers Provided) Suite 5423 - hosted by PPI@ Inc. (Dinner on your own) Join PPI's Team: Wendy Finch, Jesse Thompson, Richard Hill and Kevin Closson in an informal gathering to discuss upcoming issues. | |

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Day 3 - Thursday - November 3rd, 2016

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| 8:00am -8:30am | Full Breakfast (provided) | Centennial Ballroom |
| | General Session Presentation | Centennial Ballroom |
| 8:30am-9:15am | <p>Unmanned Aerial Vehicles (AKA Drones) - The technology for UAVs is already here and improving rapidly as well as the potential uses of UAVs that are limited only by your imagination. County projects, from early planning to final construction, nearly every stage of the engineering process can benefit from the aerial craft. It should be noted that many of the tasks required of UAVs are already taking place on many large projects, just carried out by full sized airplanes and helicopters. These include aerial mapping, LiDAR scanning and taking footage and photography for public presentation purposes. However, as these tasks are handed over from manned to unmanned craft during this transitional phase, smaller county projects will benefit the most from these uses. Costs will drop and the barriers currently in place for participating in aerial mapping and photography will become a reality for nearly all projects.</p> <p>Additionally, while even the largest projects currently are usually flown only once due to the cost involved, in the future the mapping applications (both 2D imagery and 3D surfaces) can be more of a dynamic process with multiple flights throughout the life of the project. This can help in updating design imagery and surfaces and also help management track construction progress.</p> <p>Gary Licquia, RDO Integrated Controls, Survey & Machine Control UAV Account Manager Pasco, WA</p> | Centennial Ballroom |
| 9:15am-9:30am | Break - Sodas & Cookies | Centennial Ballroom |
| 9:30am-11:00am | <p>UAV (aka Drones) Panel Discussion - Jim Ayres, P.E., CRAB – Moderator This session’s first part is intended to give you an overview of UAV’s for county applications, results attained, and the future of UAV’s. Each of the panel members will bring to the table their own specific experience with UAV’s. The second half of this session is intended to be an open forum where the audience is encouraged to participate with questions.</p> <p><u>Distinguished Panel Members:</u> Larry Selden, PLS, Douglas County UAV Demo project “Area 1 Maintenance Shop Relocation Site Topo” Matt Balder, EIT, Thurston County UAV Demo project “Old Hwy 99 Paving Project Funding Presentation” Seth Walker, P.E., Walla Walla County UAV Demo project “Columbia County Stockpile Site” Matthew T. Kumpula, PLS, David Evans and Associates, Inc., “Mobile Mapping & sUAS PM/CM”</p> | Centennial Ballroom |
| 11:00am-Noon | <p>Lunch and conference wrap-up, topics to include:</p> <ul style="list-style-type: none"> • Future direction for the RDC • The results of the annual Project Design contest, Geo-Caching Contest Winners, and Golf tournament winners • Door Prizes for submitted conference evaluations (must be present to win) | Centennial Ballroom |