

**BETTER 3D VISUALIZATION
SOFTWARE FOR
TRANSPORTATION
AND CIVIL PROJECTS**

BEYOND WARE 

PRODUCT BROCHURE
2022

BACKGROUND

Beyondware is a software publisher focused on making better 3D visualization tools for transportation and civil projects. Beyondware was founded in 2020 by Sam Lytle, a licensed civil engineer who has focused more than a decade on 3D visualization in infrastructure. After spending several years in engineering and 3D visualization with the Nevada Department of Transportation and Kimley-Horn, Sam started Civil FX, a civil visualization studio. After 6 years of growing it, Sam sold Civil FX and started Beyondware.

Architecture offers a variety of high-powered 3D visualization tools, but there are few similar products in transportation and civil. With Civil FX, Sam grew a team of talented artists and programmers- and a corresponding complicated workflow- to fill the gap of efficient visualization tools available in the industry. Beyondware seeks to fill these gaps with more powerful, more efficient software made exclusively for transportation and civil projects.

PRODUCTS

Beyondware offers two main products, Beyond Typical and Beyond CAD. Beyond Typical has two tiers, Lite and Pro and we offer a bundle called the Beyond Bundle that offers Beyond Typical Pro and Beyond CAD together at a discount. In total we offer 4 packages, 1) Beyond Typical Lite, 2) Beyond Typical Pro, 3) Beyond CAD and the 4) Beyond Bundle.

Beyond Typical is an all-new, drag and drop 3D typical section creator that makes street design and visualization so accessible that you can become proficient in hours and design roads in minutes. Pre-made sections can be quickly placed and adjusted in a 3D environment to design, plan or visualize road and street projects.

Beyond CAD is a 3D visualization engine built specifically for civil and transportation projects. Beyond CAD is built on Unreal Engine and very similar to Lumion or Twinmotion but with a civil focus rather than the architectural focus of those and similar applications. Users can import their 3D CAD files, texture them, add 3D objects from the asset library, include animated traffic and pedestrians and use many other features to efficiently and realistically visualize transportation and civil projects.

Both products are built on Unreal Engine and available from our website or from the Epic Games Launcher (similar to how Twinmotion is distributed).

Specific product overviews with in-depth information are included later in this guide for both Beyond Typical and Beyond CAD.

PRODUCT LINEUP



BEYOND TYPICALS LITE

\$499
PER YEAR/USER

- Drag and drop typical section creator
- More than 60 sections available
- Render images and videos in 2D and 3D
- Interactive creation and presentation



BEYOND TYPICALS PRO

\$1499
PER YEAR/USER

- Drag and drop typical section creator
- More than 80 sections available
- Render images and videos in 2D and 3D
- Interactive creation and presentation
- Phasing and alternatives
- Multi-section layout mode
- Bridge sections
- Scene effects
- Beyond Typical's Cloud (Browser)*
- Import 3D files for custom assets*
- Asset expansion pack with ADA and more*

*Coming soon



BEYOND CAD

\$2499
PER YEAR/USER

- Visualize CAD data with Beyond CAD
- Build, render and present in realistic 3D
- 8 free example projects
- More than 1500 realistic 3D assets
- Advanced traffic system (plus Vissim)
- Camera controls and scene styles
- Visual graphics like pathway arrows
- 4D phasing and GANTT charts
- Custom sign creator
- Walk, ride or drive your project
- Regular updates
- Even more features
- 12+ hours of free training



BEYOND BUNDLE

\$3499
PER YEAR/USER

- Beyond Typical's Pro
- Visualize CAD data with Beyond CAD
- Build, render and present in realistic 3D
- 8 free example projects
- More than 1500 realistic 3D assets
- Advanced traffic system (plus Vissim)
- Camera controls and scene styles
- Visual graphics like pathway arrows
- 4D phasing and GANTT charts
- Custom sign creator
- Walk, ride or drive your project
- Regular updates
- Even more features
- 12+ hours of free training

ALL PRICES USD

FAQ AND SUMMARY

WHAT IS BEYONDWARE?

Beyondware is a software publisher focused on building better 3D visualization and planning tools for civil and transportation. Beyondware is a DBA for Beyond CAD LLC and was founded by licensed civil engineer Sam Lytle, PE.

WHAT KIND OF COMPANY IS BEYONDWARE?

Beyondware is a software publishing company that operates remotely. We are based in the United States but have employees in several states and plan to continue growing remotely throughout the US in the coming months and years.

We employ mostly software engineers with the occasional artist to supplement our team. Furthermore, we also occasionally use overseas talent as contractors for one-off projects.

We utilize the latest coordination, planning and development management tools to ensure efficient development and support for our users.

WHAT PRODUCTS ARE AVAILABLE FROM BEYONDWARE

Beyondware offers two products, Beyond Typical and Beyond CAD. Beyond Typical comes in two version, Lite and Pro. We also have the Beyond Bundle which includes Beyond Typical Pro and Beyond CAD.

So, in total, we have 4 subscription packages- Beyond Typical Lite, Beyond Typical Pro, Beyond CAD and the Beyond Bundle.

HOW DO THE LICENSES WORK?

Every Beyondware license you buy is a 'floating license' which works similar to a network license. When you purchase, you will get an email with a Subscription ID which is used within our products to activate the license. All application downloads include the full software, just with watermarks. The free 30-day trial or paid subscription simply remove the watermarks. These licenses can be transferred between computers as long as no two users are using the license at the same time. Users can install the software on multiple machines and move a single license between them as necessary. If your organization needs more than 1 concurrent user of our products at the same time, multiple licenses can be purchased with a single email address. Our licensing system only uses the Subscription ID to activate, not the email.

WHAT SUPPORT AND TRAINING IS AVAILABLE FOR USERS?

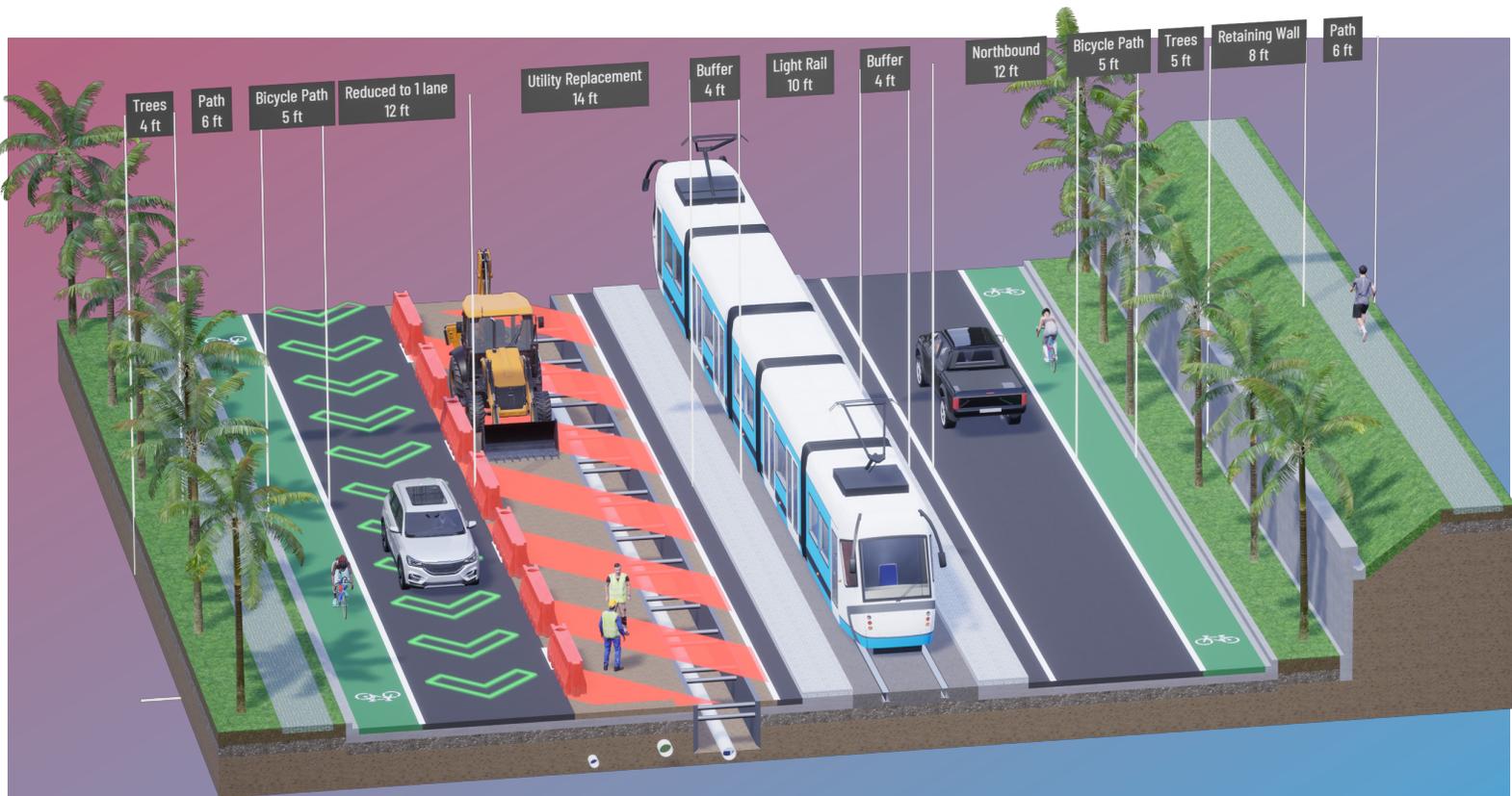
We currently manage support with our development team one on one as necessary for any Beyondware customers and will scale as subscription numbers grow.

We offer many hours of tutorials for Beyond Typical and Beyond CAD from our website and YouTube channel (and will constantly be adding more) so that users can obtain training as necessary and on their schedule. These are divided into videos and chapters for ease of use.

READ MORE FAQs AT WWW.BEYONDWARE.COM/FAQ

MAKE DESIGN DECISIONS IN MINUTES

BEYOND TYPICALS



PRODUCT OVERVIEW



BACKGROUND

THE ALL-NEW, 3D TYPICAL SECTION CREATOR



Typical sections have been used in the design and communication of transportation and civil projects for a very long time. In more recent years, 3D typical sections have been effectively used in communication and public outreach of roadway projects.

A 3D drag and drop typical section creator was a planned feature of Beyond CAD from the early days to enable anyone to quickly make 3D renders from pre-made sections. As this typical section feature neared launch, however, it became apparent that it would be more useful as a stand-alone application, and Beyond Typical was born.

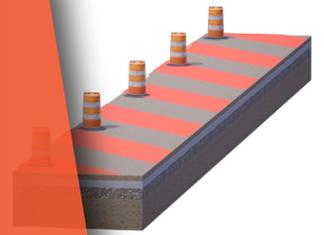
Feedback from early users was not only very positive, but indicated that we may have unknowingly made an urban design and planning tool. Yes, Beyond Typical could be used for 3D visualization, construction phasing, roadway alternative analysis and more, but the urban design application seemed to get these early users most excited. They were now able to not only quickly create 3D typical sections, but also create and edit them in real-time, often with clients.

This early feedback was essential to iterating and crafting a fully-featured transportation planning tool in the months following and, in 2022, Beyond Typical was released to the public in two versions, Lite and Pro.



VALUE

THE VALUE AND MARKETING OF BEYOND TYPICALS



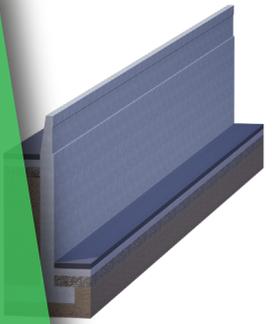
As we've spoken with Beyond Typical's users, one of the most prominent forms of feedback we've received has been how much time has been saved using this new tool. They often say things like "What used to take me days or weeks now takes minutes or hours." or "This is an absolute game changer!"

Previous methods of typical section creation was either low quality and generic or slow and expensive. Beyond Typical's is the first 3D typical section creator that is both quick and easy to use as well as photorealistic and aesthetic. In so doing, Beyond Typical's can save users an incredible amount of time and money. The time and money savings comes directly from spending fewer hours developing typical sections for communication and outreach and indirectly by cutting down on coordination and planning with stakeholders on projects.



FEATURES

SHOCKINGLY SIMPLE, SURPRISINGLY POWERFUL



CORE FEATURES

REAL-TIME EDITING

PHOTOREALISTIC ASSETS

ELEVATION AND WALLS

UNDERGROUND UTILITIES

ASSET PLACEMENT

CUSTOM LABELS

RENDERING

CENTER LINE LOCKING

PRESETS

SKY AND LIGHTING

WIDTH GUIDES

OUTER LOCKING

3D OR 2D VIEW

HIERARCHY

AUTO LABELS

PRO FEATURES

SCENE EFFECTS

PHASING/ALTERNATIVES

LAYOUT MODE

BRIDGE SECTIONS

ASSET IMPORTING*

BEYOND TYPICALS CLOUD*

*COMING SOON



LEARN ABOUT ALL OF THE FEATURES AT WWW.BEYONDTYPICALS.COM



TESTIMONIALS



WHAT USERS ARE SAYING

“THIS IS AN ABSOLUTE GAME CHANGER”

Chris Braband, Bolton and Menk

“TXDOT LOVED IT! THIS IS A GODSEND”

Todd Rogers, Walter P Moore

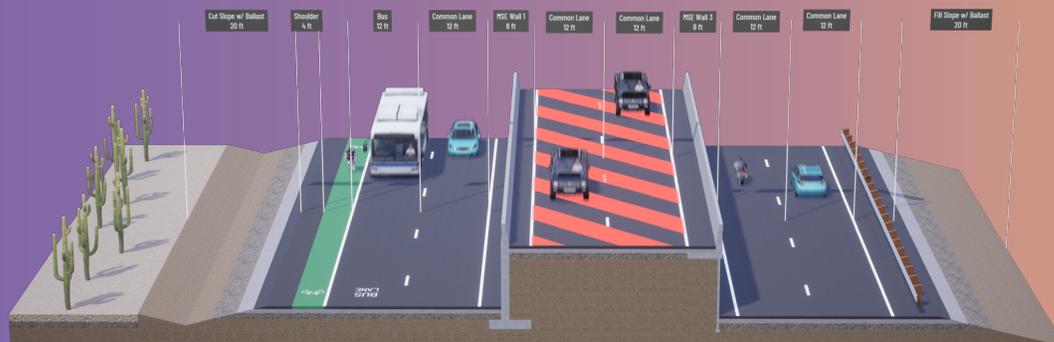
“THIS IS AN AWESOME PIECE OF SOFTWARE”

Zane Pratt, David Evans and Associates

“I’VE NEVER SEEN A TOOL MORE SIMPLY COMMUNICATE CONSTRUCTION”

Josh Roberts, Rainmaker Productions

**WATCH FULL TESTIMONIALS AT
WWW.BEYONDTYPICALS.COM**



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RESOURCES

TRAINING, TUTORIALS AND SUPPORT



Beyondware offers a variety of resources to help support users of Beyond Typical. These resources can be accessed at www.beyondware.com

TUTORIAL VIDEOS

While the basics of Beyond Typical are intuitive and easy to learn, tutorial videos on the Beyondware.com website are available to teach this software application efficiently and thoroughly. These are broken into individual videos covering specific subjects which are further broken into chapters for convenience. A user can become proficient with Beyond Typical in an afternoon of training with these videos.

PRESETS

Beyond Typical is shipped with a number of presets including a two way left turn, one way street, downtown scenario, divided highway and more. These can be used for practice and training, studied or used to quickly get started on a similar project.

ONE ON ONE SUPPORT

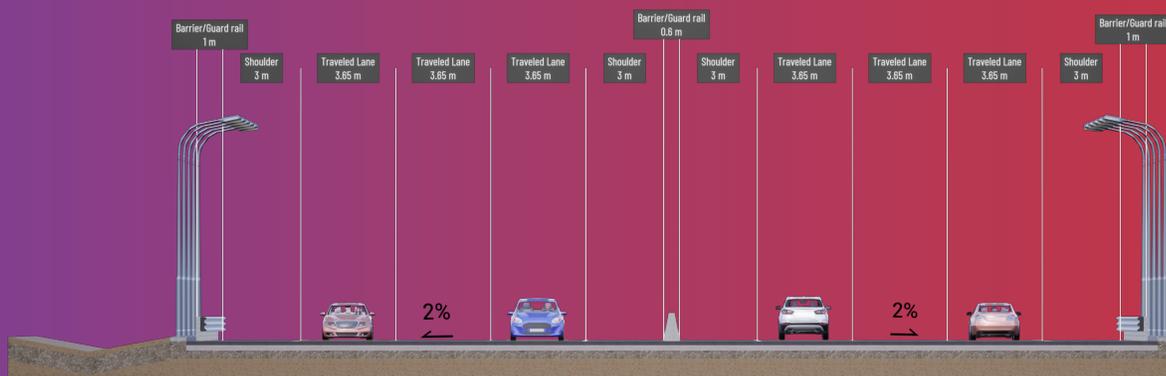
Users can send questions and issues to our development team for one on one support. We will also work with paying subscribers one on one with training as necessary to make sure they have everything they need to be successful within Beyond Typical.

LINKEDIN USER GROUP

A LinkedIn User Group is available to ask questions and contribute to other users including directly with the Beyond Typical development team.

ROADMAP AND FEEDBACK

A public-facing roadmap is available for users to see planned and upcoming features. The roadmap is interactive, allowing users to add suggestions and vote features up and down.



FAQS

FREQUENTLY ASKED QUESTIONS



WHAT IS BEYOND TYPICALS?

Beyond Typical is an all-new, drag and drop 3D typicals section creator released in early 2022. Beyond Typical makes street design and visualization so accessible that you can become proficient in hours and design roads in minutes.

HOW IS BEYOND TYPICALS DIFFERENT FROM BEYOND CAD?

While Beyond Typical and Beyond CAD both make 3D visualization more accessible for civil and transportation projects, Beyond Typical is both easier to use and not as capable as Beyond CAD. With Beyond Typical you can drag and drop pre-made sections to make roads in minutes, but you can't import CAD files or do complicated visualization. With Beyond CAD you can import 3D CAD files to visualize civil projects using textures, library assets, advanced traffic and more.

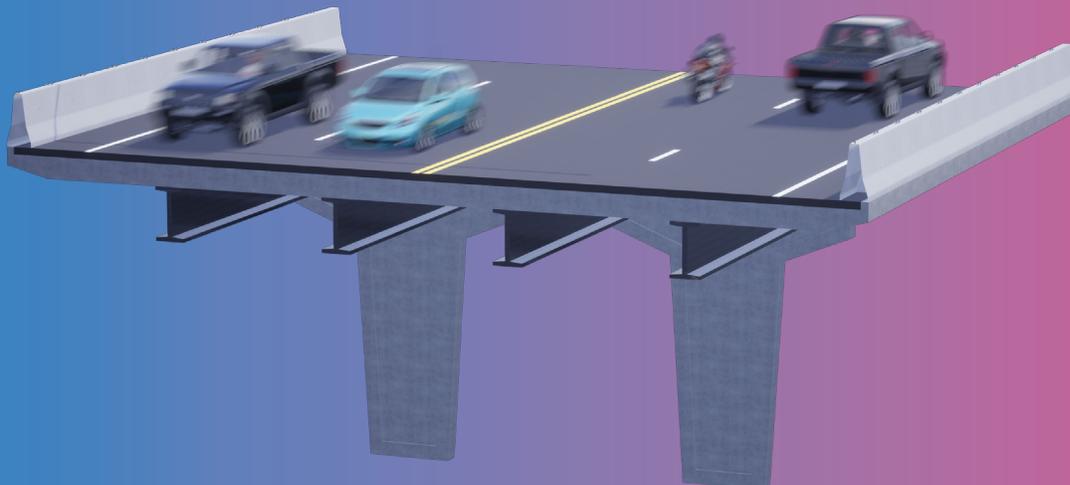
WHAT ARE THE DIFFERENCES BETWEEN LITE AND PRO?

Beyond Typical is offered in Lite and Pro versions. Beyond Typical Pro offers advanced features including bridge sections, scene effects, phasing and layout mode (with more features coming soon). Beyond Typical Lite does not have access to these features but can do everything else.

Lite and Pro don't require separate downloads. There is only one Beyond Typical application, and your Subscription ID will unlock the features associated with your license.

HOW CAN I DOWNLOAD BEYOND TYPICALS?

Beyond Typical is available through a variety of methods listed at www.beyondware.com/download. The recommended download method is the Epic Games Launcher but users can also download via zipped folder and other methods. The size of Beyond Typical is around 6-8GB. Recommended specifications are listed on the Download page.



BRING YOUR 3D CAD FILES TO LIFE WITH

BEYOND CAD



PRODUCT OVERVIEW



BACKGROUND



Transportation and infrastructure projects can be complicated and communicating these projects to the public and other stakeholders using 3D visualization can be similarly complex.

Good visualization can be expensive and time consuming and challenging to do in-house. Additionally, most 3D visualization software is built for architecture projects and there are very few tools available for civil and transportation projects.

Beyondware founder Sam Lytle combined over a decade of experience in civil engineering and 3D visualization and one of the most powerful gaming engines available to make 3D visualization possible for those doing the 3D design and creating the CAD files.

Beyond CAD is a software program available for PC that is built on Unreal Engine and has the 3D asset library and features to bring even the most complicated infrastructure projects to life.

With Beyond CAD, users can import their 3D CAD files, texture them, add trees, buildings, traffic control devices and even complex traffic and pedestrian movements.

With the powerful visual graphics and the built-in render engine, users can produce photorealistic image or video renders and tell the story of their project in hours instead of days or weeks. Visual experiences allow users and their clients to walk or drive the project in real-time.

The civil engineering industry has needed a good 3D tool build specifically for transportation and civil to make 3D visualization available for the engineers, designers and project managers doing the actual design and, with Beyond CAD, that tool is now here.



VALUE AND MARKETING

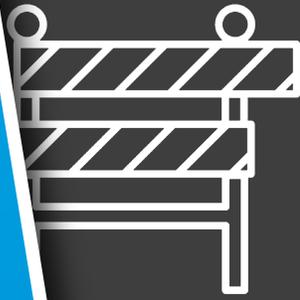
Traditional methods of outsourced 3D visualization for transportation and civil projects can be expensive. In fact, our research shows that the average cost of 3D visualization for a transportation project is over 40k USD. While these costs are lower now than they have been in the past, they are still often prohibitively expensive due to the lack of good visualization software and complex workflows.

Beyond CAD streamlines the process by enabling the engineers and CAD designers to do the work themselves, in-house. With per-month rates around \$200/month, users can visualize their 3D CAD models in a fraction of the cost of outsourcing, even factoring their hourly rates.

This transition from outsourced to in-house visualization took place in the architecture industry 10-15 years ago as software like Lumion, Enscape and Twinmotion made 3D renders accessible to architects everywhere. Beyond CAD is positioned to be the 'Lumion' or 'Twinmotion' of the transportation and civil engineering industry by making 3D renders accessible to more with efficient and powerful software.

The value of Beyond CAD will continue to increase as in-house 3D visualization becomes more common and expected in this industry, similar to what took place in architecture in the early 2000s.

Beyond CAD doesn't replace Lumion, Twinmotion, InfraWorks or most other modeling and visualization software. Rather, Beyond CAD is another tool available made for specific projects, especially transportation. Firms and agencies looking to adopt Beyond CAD quickly learn that it is a valuable new tool to work along other applications made for CAD and architecture.



FEATURES



Beyond CAD offers a number of features that make 3D visualization easier and more realistic than ever. Highlighted features are included below.

ADVANCED TRAFFIC SYSTEM

The advanced traffic system within Beyond CAD includes 5 different traffic types- vehicles, rail, bicycle as well as running and walking pedestrians. It also includes ADA pedestrian variety. Each path can be individually customized including vehicles per hour, lanes, distribution % and more. Intersection controllers enable stopping and starting at traffic signals and paths can merge and diverge. Each path can also be phased as part of the phasing system. Vissim traffic importing also works (currently in beta).

IMPORTING

Beyond CAD can work with a variety of file types including .fbx, .obj, .dwg and more. Files can be exported from Bentley, Autodesk, Trimble and other products and imported using a variety of import parameters. InfraWorks is an especially effective and efficient workflow with users able to import, texture, add traffic and visualize photorealistically in a fraction of the time of any other workflow.

3D ASSET LIBRARY

You won't find any bookshelves, couches or throw rugs in Beyond CAD. This is a visualization engine built for infrastructure projects with an asset library to match that includes traffic control devices, road and bridge sections, hundreds of trees and rocks, landscaping features, construction equipment and much more.

This is an asset library that has everything BUT the kitchen sink.

VISUAL GRAPHICS

In the past, adding moving arrows, labels, area of interest highlight and other visual graphics typically involved advanced post processing using software like After Effects. With Beyond CAD the power of high quality visual graphics is accessible for everyone- no complex post processing necessary. Quickly place and adjust pathway arrows, highlight a construction zone with an area highlight or have entire sections of your project glow in the color of your choosing.

4D PHASING AND ALTERNATIVES

Projects are not static and presenting them as fully finished leaves out the crucial intermediary steps. With Beyond CAD, users can tag phase data to every imported or library asset and adjust the phases as necessary using a GANTT chart system to appropriately add time to communicate the project.

In addition to dynamic phasing, the same system can be used to organize and present multiple alternatives for coordination of projects during all phases of development.

LEARN MORE ABOUT THESE AND MANY OTHER FEATURES AT WWW.BEYONDWARE.COM/BEYONDCAD



RESOURCES

Beyondware offers a variety of resources to help support users of Beyond CAD. These resources can be accessed at www.beyondware.com

TUTORIAL VIDEOS

Over 10 hours of Beyond CAD tutorial videos are available for free from the Beyondware.com website covering a variety of project types and broken into individual videos and chapters for ease of use. These are developed and organized in a way that any user can self-train efficiently to be up and running as quickly as possible in Beyond CAD.

EXAMPLE PROJECTS

Beyond CAD includes 8 example projects for free. Four of these are downloaded with the software and the other 4 can be downloaded separately. These examples cover a variety of project types including complete streets, diverging diamond, airport access, park, photogrammetry and more. Users can open, explore and edit these projects as much as they need to for testing and training in Beyond CAD.

ONE ON ONE SUPPORT

Users can send questions and issues to our development team for one on one support. We will also work with paying subscribers one on one with training as necessary to make sure they have everything they need to be successful within Beyond CAD.

LINKEDIN USER GROUP

A LinkedIn User Group of more than 100 individuals is available to ask questions and contribute to other users including directly with the Beyond CAD development team.

ROADMAP AND FEEDBACK

A public-facing roadmap is available for users to see planned and upcoming features. The roadmap is interactive, allowing users to add suggestions and vote features up and down.



FAQS



WHAT IS BEYOND CAD?

Beyond CAD is a PC-based 3D visualization engine built specifically for civil and transportation projects. Beyond CAD is built on Unreal Engine and very similar to Lumion or Twinmotion but with a civil focus rather than the architectural focus of those and similar applications.

WHAT CAN I DESIGN WITH BEYOND CAD?

As Beyond CAD is a visualization tool designed to create beautiful image and video renders as well as interactive publications, it does not have design capabilities. Beyond CAD is for civil professionals designing projects in CAD software as a place to import and visualize those designs.

FOR WHOM IS BEYOND CAD CREATED?

Beyond CAD is a 3D visualization tool that makes high quality renders accessible to those involved in the design and construction of civil projects. This includes engineers, designers, CAD operators, city planners, project managers, construction engineers and more.

If you are involved in the design or construction of transportation, public works, landscape architecture, site civil, transit or other civil projects, Beyond CAD is for you. If you use Infracore, Civil 3D, Openroads, Inroads, Microstation or other CAD software for civil or infrastructure projects, Beyond CAD is for you.

HOW IS BEYOND CAD DIFFERENT FROM TWINMOTION?

There are several civil visualization software applications available by major publishers of design software. Not only is Beyond CAD an independent option that will work with most design software, it also allows higher quality renders, has an all-new smart traffic system for realistic and organic looking traffic as well as a handful of other features not available in any other software. The asset library has been carefully curated to include over 1,500 high quality 3D assets selected and created specifically for infrastructure projects.

CAN I USE BEYOND CAD ON A MAC COMPUTER?

Beyond CAD has been built to work exclusively on Windows computers and there is no version for Mac computers, nor are there plans for Mac development at this time.

Beyond CAD has been built and tested using 64-bit Windows 10 and 11 and use with any previous versions of Windows is discouraged but still may work.

We hope to have Beyond CAD Cloud available in 2023 with the capabilities to use the software via a link in a browser. When this happens, it will be possible to use from any device that has a mouse and keyboard, including Mac computers.

HOW CAN I DOWNLOAD BEYOND CAD?

Beyond CAD is available through a variety of methods listed at www.beyondware.com/download. The recommended download method is the Epic Games Launcher but users can also download via zipped folder and other methods. The size of Beyond CAD is 60-70 GB so a large hard drive and fast internet connection is advised. Recommended specifications are listed on the Download page.

