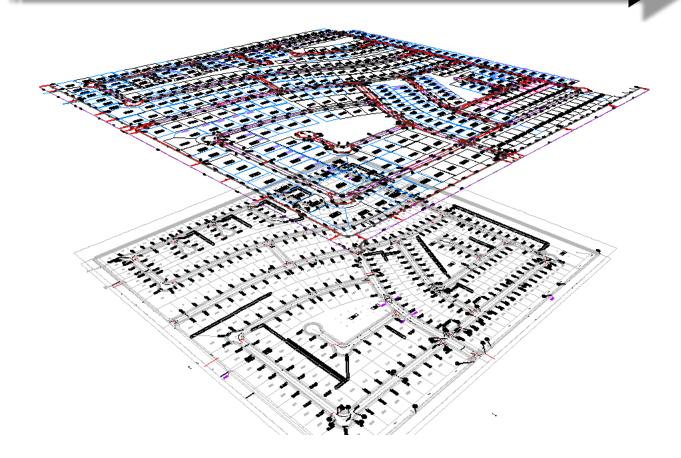
EXTENDING----THE POWER OF CIVIL 3D FOR SUBDIVISIONS



PRODUCT INFORMATION GUIDE



















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# "WHAT IS ASE CIVIL?"

ASE Civil (*An Autodesk Partner Product*) is add-on sofware that extends the usability of AutoCAD and Civil 3D for subdivision projects. Versus using Civil 3D alone, ASE will:

- **MAXIMIZE** subdivision productivity
- Simplify & **FULLY** automate multi-line/"3-line" road profiles
- **ELIMINATE** missed deadlines
- Reduce CAD design team size
- Drastically reduce design & development time

### ASE is the LOGICAL solution when:

• Tight Deadlines

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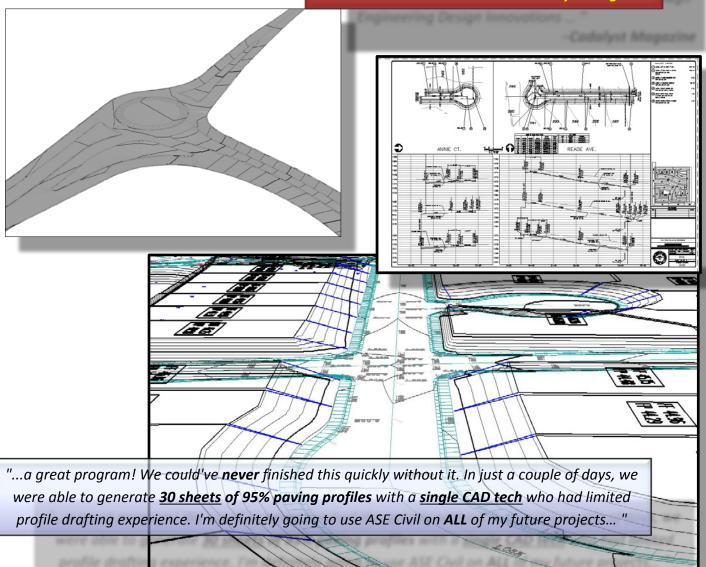
- Stringent Submittal Requirements
- Slim Project Budgets

... drive CAD design and production techniques.

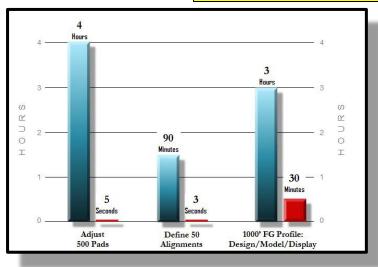


"...If you're designing **subdivisions**, take a closer look at **ASE Civil** design software, available through Engineering Design Innovations ... "

-Cadalyst Magazine



### Cut Your Subdivision Development Time in HALF!



In today's **extremely-competitive** economy, land developers are now demanding that civil consultants deliver higher volumes of service in less time and on a much tighter budget than in previous market years. The only way engineers can accomplish this and still "turn a profit" is by ensuring that their workflow is effective, accurate, agile and most of all, extremely **efficient**.

For consult

ants to be profitable, design teams simply cannot afford to spend weeks or months setting up and developing subdivision projects.

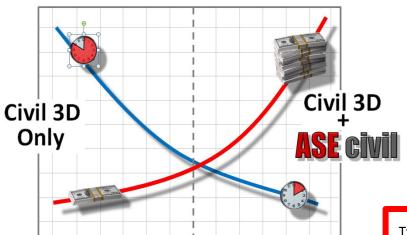
The ability to quickly establish a solid vertical design and instantly turn that into a reactive, renewable design/production "workflow object", is

Adjust 500 Pads: Includes modification of all 3D pad objects to a specific driveway grade or elevation difference from curb reference and update of all labels.

Define 50 Definition from site layout centerline geometry. Includes invisible terminal extensions on each alignment and all interval & key-point stationing.

1000' FG Profiles: Includes design of profile data to include grade breaks, 2 intersections, curb transitions, vertical curves, key labels, true-length dimensions. I knuckle, 1 cul-de-sac, creation of top or datum 3D road model. EG & FG profile linework w/all labels and placement of profiles on improvement sheet

what makes ASE Civil a <u>MUST-HAVE</u> tool for subdivisions work.



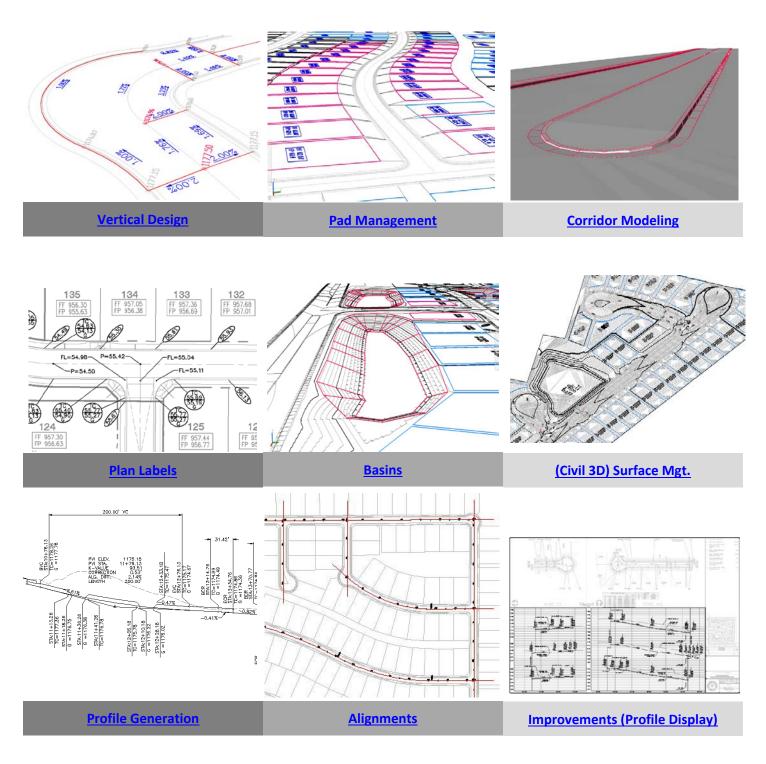
Twice featured in "Cadalyst" magazine!
(Follow the links in logos below to read the articles)

Cadalyst

Get productive with CAD
and get the job done.

# PROGRAM FEATURES

ASE Civil contains a variety of specialized tools for subdivision paving and grading tasks. They are highly-effective, easy-to-use, dynamic, cost-saving features that dramatically accelerate *vertical design*, *pad management*, *corridor modeling*, *plan labels*, *basin design*, *surface management*, *profile generation*, *alignment definition* and *improvement plan* development.



# PROFILE GENERATION

All-Inclusive. Accurate. Dynamic. Flexible. Easy! ASE Civil's "Profile Generator" will create and update FG road profiles

instantly from your project design data.

One-click profile output...

ZERO manual edits!

Quickly generate

completely automated profiles with one click. Manual

Only ASE can generate complex, dynamic, MULTI-LINE CURB & GUTTER PROFILES, quickly and easily with no manual edits!

editing is non-existent using ASE Civil.

Follow the link below to view an introductory video of ASE's **PROFILE GENERATOR** feature

Easily create the most complex road profiles imaginable in <u>seconds</u>! Include:

Grade Breaks
Intersections
T/L Dimensions
Label Branching

Vertical Curves
Variable-Height Curbs

True-Grade Calculations

Label Inversion

**Curb Transitions** 

Medians

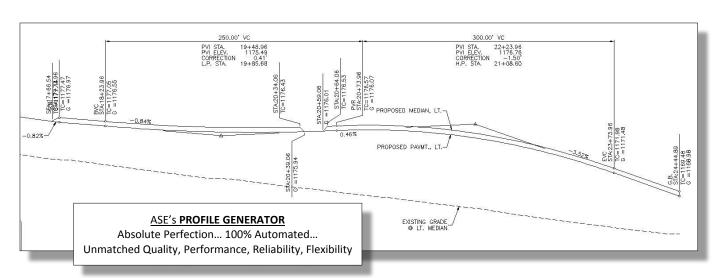
Linework Description Labels

and **more** ...

Driveways

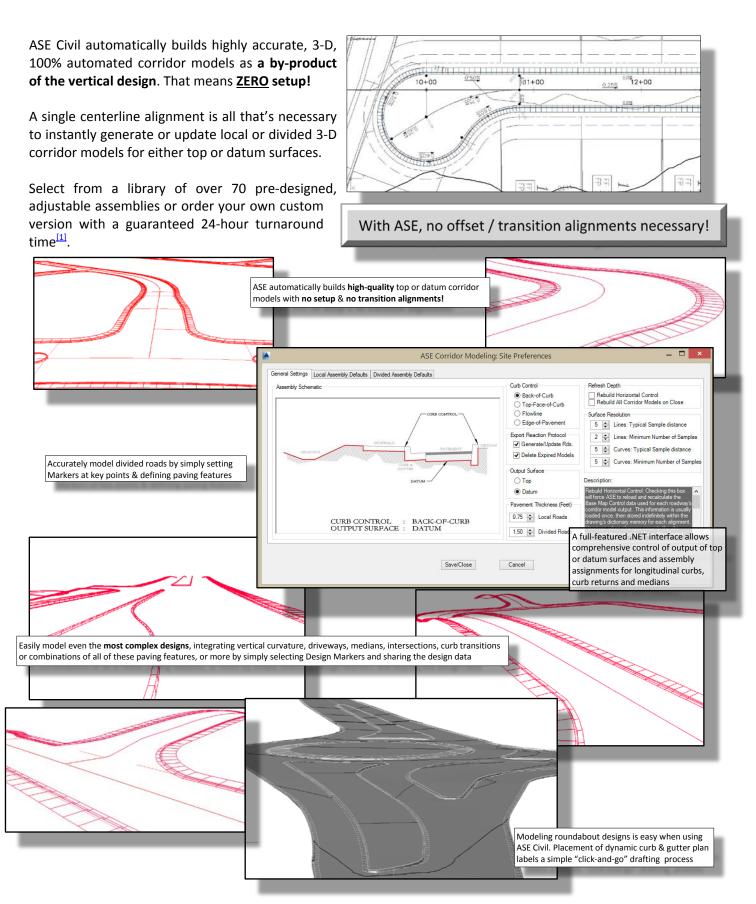
True-Length Linework
Customizable Labeling

Shared Defaults



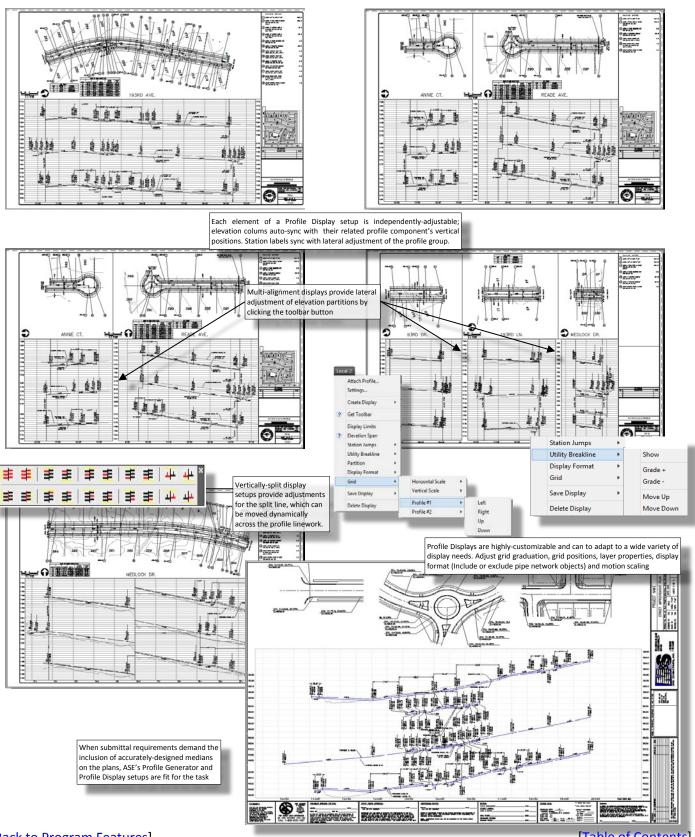
[Back to Program Features]

## 3-D CORRIDOR MODELING



## IMPROVEMENT PLANS

ASE Civil imports and manages pre-formatted AutoCAD viewport arrays on improvement sheets to automatically display and adjust road profile drafting output. Select from six fully-adjustable, customizable Profile Display setups that support 1:1 Paper Space plotting of 20 or 40-scale improvement plan sheets.



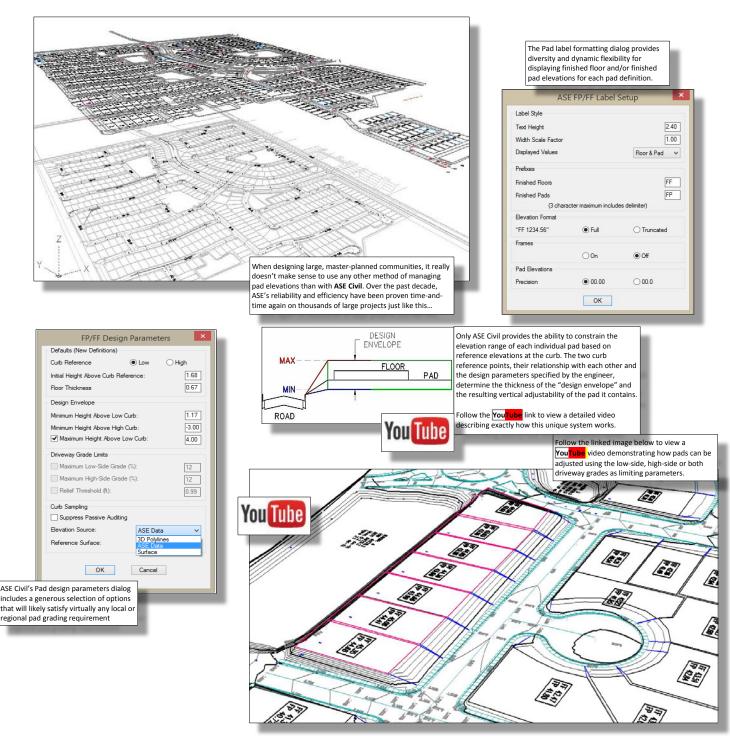
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### PAD MANAGEMENT

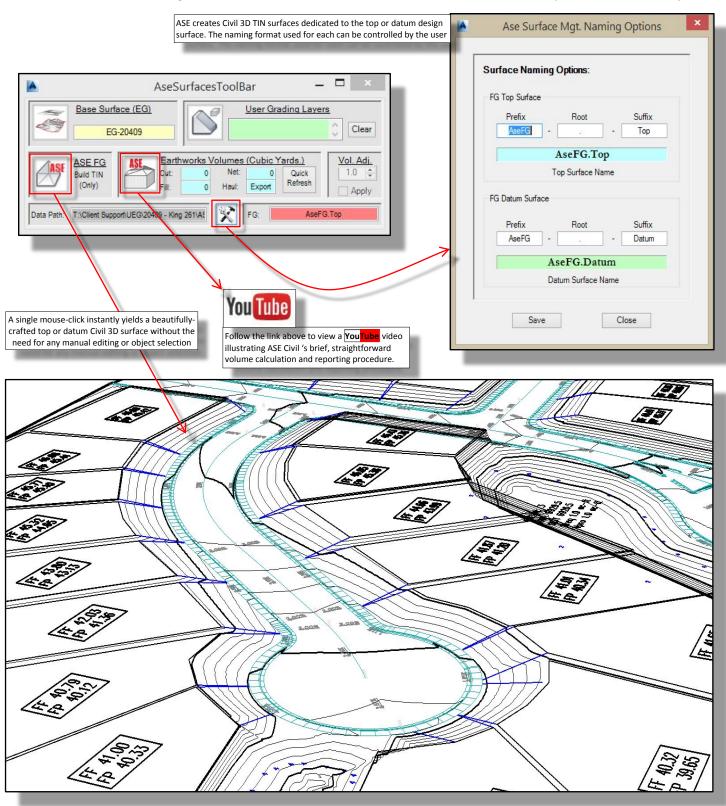
Engineers and designers can manage HUNDREDS of pads on a subdivision **simultaneously**. Fully-automated labels are customizable and dynamically update with adjustments to pads.

- Manage ASE pads individually or in selected groups.
- Control elevations by increment, driveway grade limits, street slope or high/low curb-reference elevation.
- Attach pads to the roadway design to dynamically control graded elevation limits.



## SURFACE MANAGEMENT

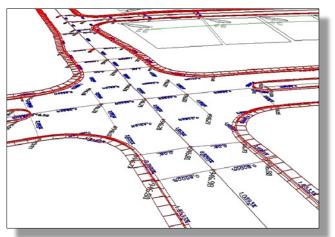
ASE Civil uses the majority of its dynamic 3-D output geometry to instantly build Civil 3D surfaces or calculate and report earthwork volumes! If desired, Feature Lines and other Civil 3D objects may also be included. One button-click is all it takes to create separate top or datum surfaces or calculate earthworks volumes using Autodesk's advanced Civil 3D TIN engine, which is a **CRITICAL COMPONENT** of ASE Civil's surface-dependent functionality.

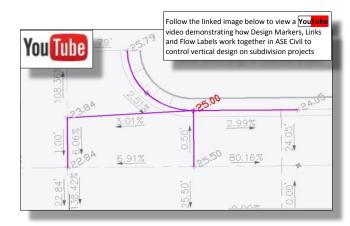


### VERTICAL DESIGN CONTROL

ASE's Design Marker store elevations at design locations and can be "Linked" together with adjustable constraints. Flow Labels dynamically update to display the magnitude and direction of drainage between design locations in real-time through linear or curved paths. Design Markers are also used to define paving features, such as grade breaks, vertical curves, intersections and more.

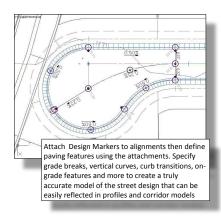
Intersection grading is much simpler and more straightforward when utilizing ASE Civil's Design Markers, Links and dynamic Flow Labels.

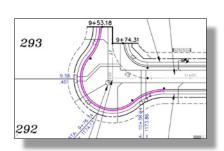


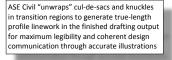


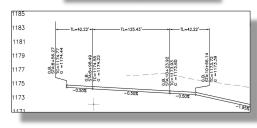
Easily maintain complete control of every longitudinal grade or road cross-slope by simply adjusting Link values or Design Marker elevations.

Export paving design data to generate reference information that can be used to automatically build corridor models, generate profiles and supply geometrically-accurate plan label elevations that account for mathematical vertical curvature and curb height at any location. Standard ASE plan elevations are NOT surface-based, but are calculated from actual road design data used to create profiles.





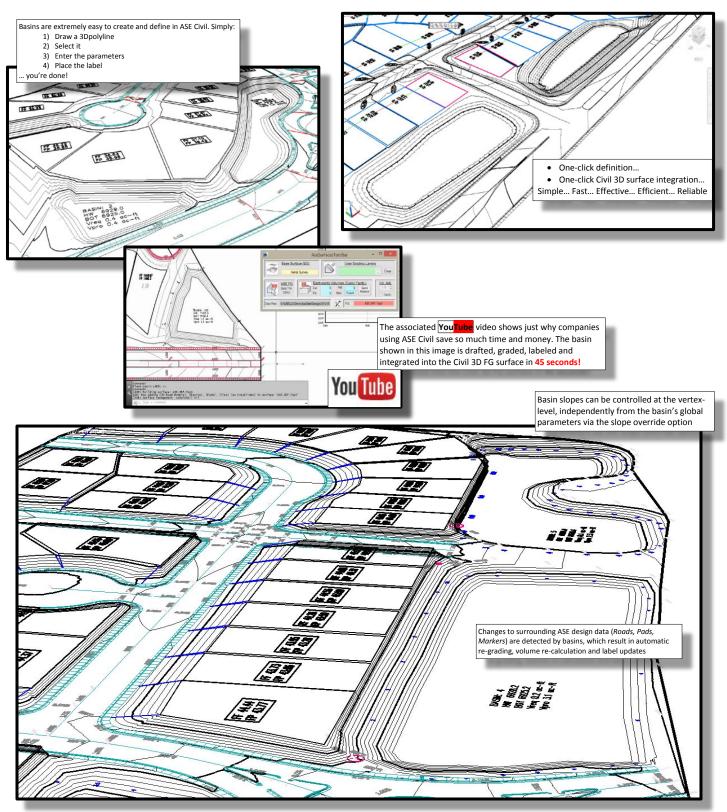




ASE Civil is the **ONLY** application capable of generating profiles through transitions at **TRUE-LENGTH**. Base Map Control geometry recognition algorithms identify cul-de-sacs and knuckles in the site layout and use that information to support modeling, drafting and label calculations without forcing awkward alignment definitions that traverse crowns. This is why corridors can be modeled without the need to create transition alignments.

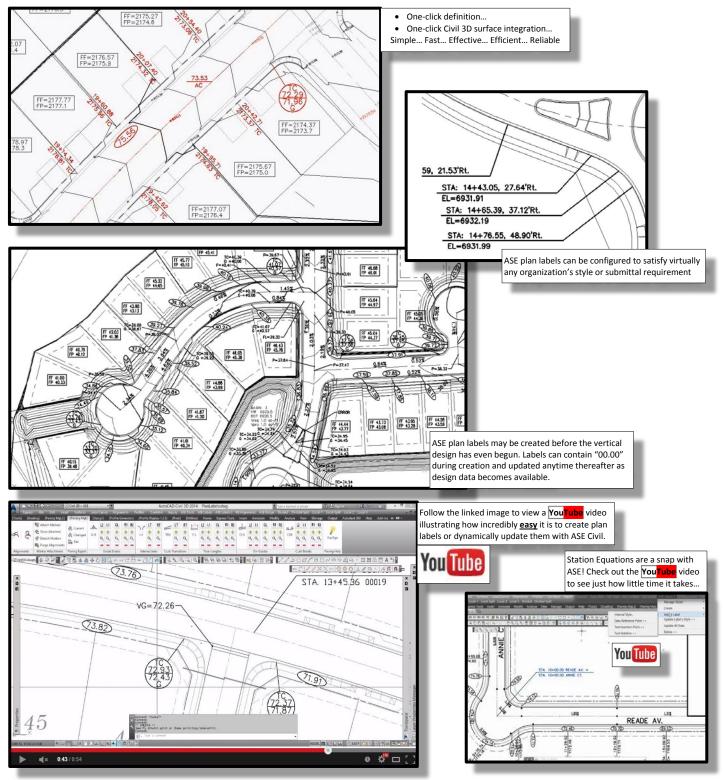
### BASINS

ASE Civil's basins can be created in less than a minute. Using a simple Polyline drawn at zero elevation, ASE references the surrounding design data (*Corridor Models, Pads, Design Markers*) to automatically elevate the top bank, find the outfall elevation, calculate the volume, grade the basin's framework and add a label. One more click integrates the basin into the Civil 3D finished surface.



### PLAN LABELS

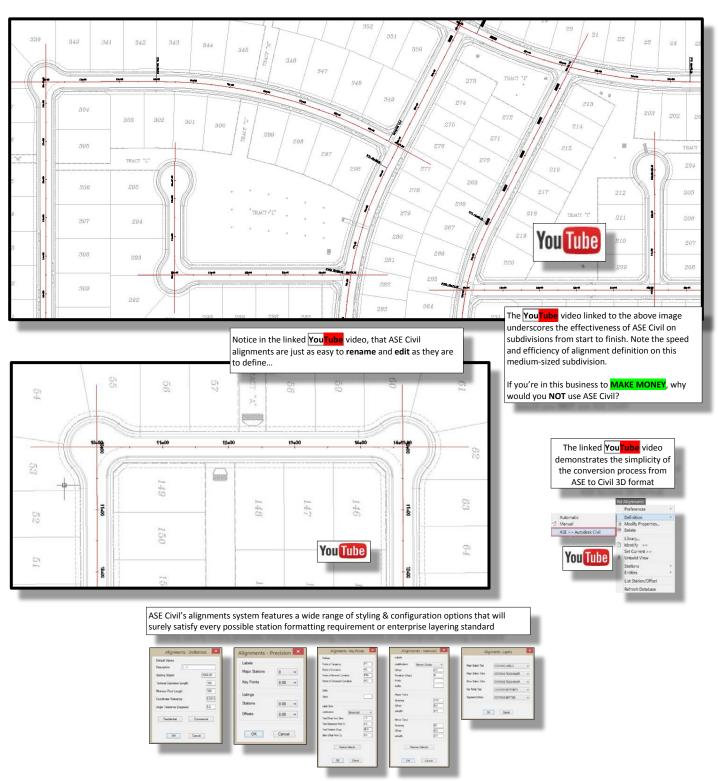
ASE's plan labels can be created with virtually no setup at all with only 2 or 3 clicks of the mouse. Select from a variety of configurations or create your own custom enterprise configuration. ASE labels can be created even before the vertical design has begun. Labels update dynamically with changes to the design data or by moving or gripediting. ASE's "Make Readable in Viewport" option ensures that labels are always upright. Configure labels to reference paving design data, drawing objects or Civil 3D surfaces. Unlimited flexibility with a simple interface that's easy to use.



[Back to Program Features]

### ALIGNMENTS

ASE Civil includes its own optional alignments system. Defining and stationing 100 alignments takes about 2 seconds. The definitions are automatically oriented correctly and include invisible 100' terminal extensions to support transition and intersection design requirements. Dynamic stations formatting and configuration is **limitless** and alignment properties may be modified or directions reversed instantly. One-click will translate ASE alignments to Civil 3D format in a second.



### CLIENT FEEDBACK

"...I'll be using ASE until they pry it from my cold dead hands!...

Once a drafter, designer or engineer uses ASE Civil on a project and gains first-hand experience of the software's features, they quickly become familiar with its capabilities and more fully understand ASE's workflow. After a few days they soon begin to recognize the efficiency of the application and develop a strong appreciation for its actual bottom-line value. After seeing results, it becomes obvious just how much time, frustration, human resources and MONEY they've saved by using ASE Civil.

"...I told management that we will need to purchase the

"... A GREAT benefit!..."

In told management that we will need to purchase the software since it does save an **enormous** amount of time...

Generally speaking, using ASE Civil on one project is usually all it takes for a civil engineering professional to recognize that going back to developing subdivisions the "the old way", is extremely difficult if not totally impossible altogether. One project or just a few days is all it really takes to truly fathom the volume of wasted resources that were lost on past projects which did **not** utitlize ASE Civil. "...ASE Civil is **glorious!** ... ASE and it's capabilities are what sets

"...ASE Civil is **glorious!** ... ASE and it's capabilities are what set me apart from every other designer/engineer out there!..."

The following comments from ASE clients<sup>[3]</sup> underscore the effectiveness of ASE Civil and validate the real-world, added value gained by consultants' integration and implementation of our software on subdivision projects.

"... I got the hang of ASE and the corridor model done in <a href="two days">two days</a>! The profiles are created as well ... There is no way I could've got this done without this program!..."

"...My sincere thanks ... I'm very impressed and feel fortunate ... what you've created is **impressive** ..."

ASE: "... Could you give me an estimate of the time it would've taken without using ASE Civil..."

Client: "... using C3D alone, at <u>least</u> 5 times as long...I initially thought 10 times as long! ... I'm thinking the people that use only C3D must have come up with some more efficient ways of creating 3 line profiles..."

"...I flat-out refuse to design a subdivision without ASE. It'd be like working with my hands tied behind my back!..."

"... our success with ASE and the ability to charge our clients **LESS** and still make a profit is a **HUGE** testimony to how much the program helps us..."

"...I strongly believe there is no faster way to produce a set of subdivision or roadway plans than with ASE Civil..."

"...It is a badass program!..."

"...It's amazing how quickly it all comes together..."

"...We assigned 1 designer (*splitting time*) and 2 CAD techs, to 2 parcels (58 lots & 180 lots). Working simultaneously with ASE, they were able to submit **95**% plans in **18 days!** ...it wouldn't have happened without ASE..."

"...I had a chat with another project manager and he told me that his designer took 7 weeks to do the vertical design for a 200+ lot subdivision using Civil 3D only. He said he got better on the next one and only took 2 weeks to complete the vertical design ..."

I could do the vertical design using ASE in 2 DAYS!!!..."

"...Thank you for working with us to get us up-and-running with ASE. This is my first time using the program and so far I'm VERY impressed!..."

"...I am a strong believer in that this software will pay for itself before you even finish the **FIRST** project it's used on..."

"...We actually finished early thanks to the software ..."

"...I feel real good about using this program. As you said before, after you learn the basics it is relatively simple ... and it is working great ..."

"...It is a significant time-saver..."

"...When I started with this company we didn't have ASE. After I began working on a subdivision with **just**Civil 3D only I quickly realized it was going to be a nightmare, especially if we had to adjust the site..."

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# LICENSING

The following table provides a variety of information related to the functional characteristics, operational requirements, costs and acquisition of ASE Civil licenses.

	Licenses "float" an	d are shared. A license is inaccessible when timed-out/checked out by a user				
	20-minute timeout period starts/restarts each time a license is accessed					
Operational	Licenses are assigned a unique serial number					
Specifications	Licenses are managed in the ASE Cloud server					
	A license may be used anywhere at anytime provided there is Internet connectivity					
	Concurrent (simult	oncurrent (simultaneous) license use is limited to the total number of licenses purchased				
Installation	ASE may be installed on any number of workstations					
IIIStaliation	Install location is "C:\Program Files" exclusively					
	Users require read/write access to Windows Registry Hive "HKEY_CURRENT_USER" for program					
	settings and storage of special variables and related data					
Requirements	Each installation requires a license file to run ("Client.vlx")					
	License files are included with trial versions					
	Enterprise license files are provided to each client upon purchase					
	Trial versions are identical to a fully-paid installation of ASE Civil					
	Trial versions may be downloaded and installed from the ASE website					
Trial Versions	Trial licenses do <b>not</b> expire					
	Trial license access is monitored by ASE's MIS					
	Offsite/remote product support is provided free of charge during trial version evaluation					
	\$2999 per shared license					
Pricing	Discounts are automatically given for purchase of 3 or more licenses					
Tricing	Scope of discounts are limited to a single transaction and are <b>not</b> commutable					
	Additional discounts may be negotiated on a case-by-case basis, but are not guaranteed					
Software Maintenance	1-year "SMA" is optional with each license purchase					
Agreement						
("SMA")	"SMA" payment is due upon initial license purchase					
	Initial installation (optional)					
"SMA"	Client orientation & training (8 hours free with 3+ license purchase transaction)					
Coverage Spec's	Repairs					
Coverage spec s	Enhancements					
	Offsite/remote product support					
<b>Product Support</b>	Telephone	Email				
Coverage Spec's	SMS	Webcast				
(Offsite/ Remote Only)	MMS	Cloud storage space (drawing and/or project files troubleshooting)				
<b>Product Support</b>	Non-covered support service is charged @ \$160/hour					
(Non-Covered)	Non covered software repairs, enhancements, etc. charged @ \$500 per request					

For additional information regarding support and licensing, please contact EDI, LLC

# COMPATIBILITY

There are two versions of ASE Civil available with expanded scopes of Autodesk compatibility:

COMPATIBILITY							
ASE CIVIL	Civil 3D						NOTES
	2010	2011	2012	2013	2014	2015	NOTES
ASE CIVIL 2012	٧	٧	٧	Х	Х	Х	Shared, on-site licensing only
ASE CIVIL 2014	Х	Х	Х	٧	٧	٧	Mobile license capability via web <sup>[2]</sup>
ASE CIVIL 2015	Х	Х	Х	٧	٧	٧	Currently in development

# ASE PRODUCTIVITY: BENCHMARK DATA

### Compare **YOUR** productivity to actual **ASE CLIENT** projects:

SAMPLE #1					
DETAILS		NOTES			
Lot Count	770				
Acres	261				
Team Size	2	2 designers; 1:Vertical design, 1:Production			
N <sup>o.</sup> Roads/Profiles	52				
N <sup>o.</sup> Basins	23				
Additional Details		5 active oil wells requiring protection from design			

TASK	TIME	DETAILS	COMMENTS		
Vertical Design 40 hrs.		Define/Label Pads	Draw Polyline, define pad, attach to alignment ("Batch" def' option also avail.)		
	40 hrs.	Design streets	Auto-Set Design Markers, Constrain, elevate to surface, define pav'g features		
		Define Basins	Draw Polyline, define basin (Labeling, volume calculation automated)		
		Balance earthworks	Raise/lower roads and/or adjust ASE pad definitions, adjust basins		
Alignment Definition	2 secs.	ASE Auto-define option used	ASE alignments may be converted to Civil 3D format in equal time required to create ASE definitions (e.g., 2 seconds in this case)		
Alignments Editing	30 mins	Ajustments to final definition	Included:  Renaming each alignment  Checking stationing  Verifying proper orientation		
Profile Generation		All local roads include:  Offset curbs & gutter  Divided roads include:  Medians w/ curb & gutter	Included:  Profile drawing creation, shortcut setup, etc.  Initial generation of multi-line profiles  Line label creation (curbs, gutter, EG)  PVI label & grade label branching (as-needed)		

# REFERENCES

- [1] Annual software maintenance agreement ("SMA") required for no-cost assembly development and delivery.
- [2] Continuous function is maintained in the event of temporary loss of Internet connectivity
- [3] All client feedback was unsolicited and none of the individuals were compensated in any way for their feedback. Some ASE clients have agreed to accept inquiries about their real-world experience with ASE Civil. To receive detailed information about any of the statements shown or for contact information for current ASE Civil clients, please email us at: <a href="mailto:Info@AzSubdivisions.com">Info@AzSubdivisions.com</a>
- [4] On-site demo's are provided free of charge for consultants located in the metropolitan Phoenix, Arizona area. For consultants outside Arizona, webcasts are available at no charge.

### CONTACT US

Seeing the program in action really helps those new to ASE Civil to gain a better understanding of how much can be gained by implementing this unique, yet highly effective software solution. Software demonstrations can be provided either on-site [4] or via webcast.

# STOP THROWING AWAY PROFIT ON WASTED DESIGN & PRODUCTION TIME!

# AFTER ALL...AREN'T YOU IN THIS BUSINESS TO MAKE MONEY????

ASE Civil will save your company literally **THOUSANDS** of dollars on each project it's used on. Contact us today for a demo of the software and witness first-hand how ASE Civil's exclusive tools, which were developed especially for subdivisions and road design, can "**\$TOP THE BLEEDING**" in your project bubdgets and put your organization back in the black!

VOICE/SMS/MMS	480.720.8890
FAX	480.907.2262
EMAIL	Info@AzSubdivisions.com, AseCivilSoftware@gmail.com
POSTAL	270 East Hunt Highway, Suite 16-223, San Tan Valley, Arizona 85143

### SOFTWARE DEMONSTRATIONS

Demos are available in 30 minute – 90 minute sessions, depending on attendee availability. If you or your office only have a few minutes to spare, we can even demo' the software's key features and functions using whatever time you have available. You **WILL** be impressed by what you see!

Demos can be performed on-site or via webcast to individual desktops or a conference room monitor via www.join.me.com