

# AB Walls 3D+Terraces



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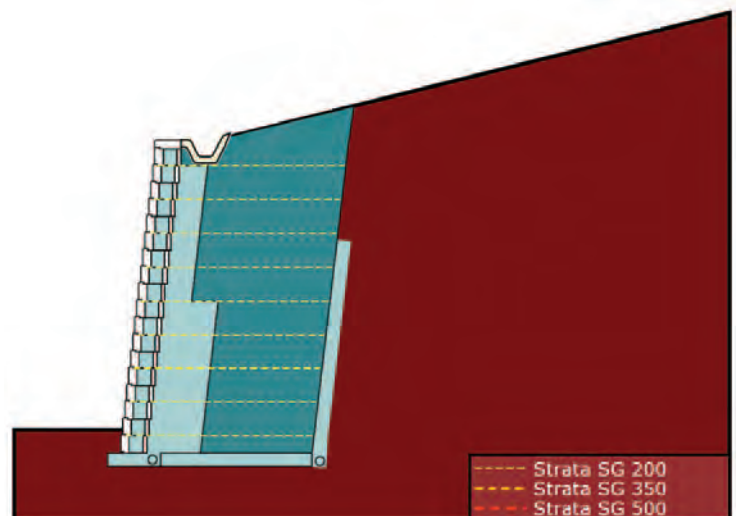
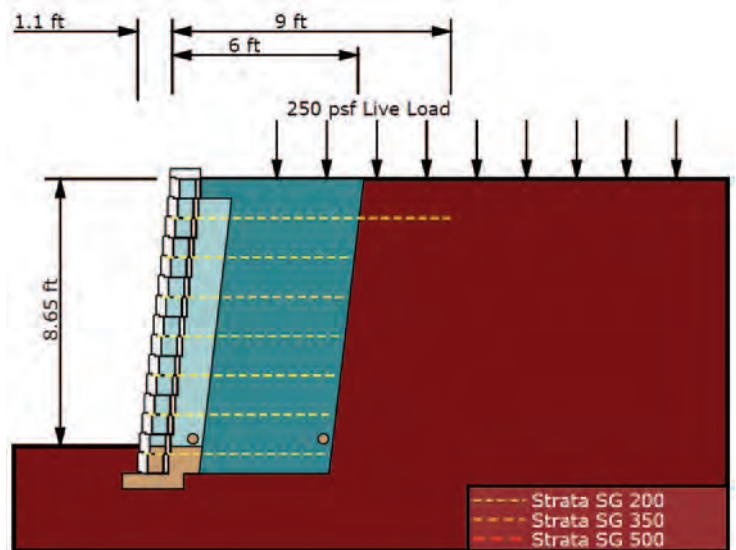
The following highlights some of the many useful solutions incorporated into AB Walls. Professional tutorials are available which also provide Continuing Education Credits.

AB Walls provides design assistance for Civil Engineers, Geotechnical Engineers, Government Officials, Architects, and Landscape Architects to develop complete site solutions and outputs that meets the needs of design professionals, land developers, property owners, general contractors, wall builders, government permitting departments, surveyors, and site inspection firms.

- ▶ Start by easily inputting the elevation view to accommodate the needs of your site.

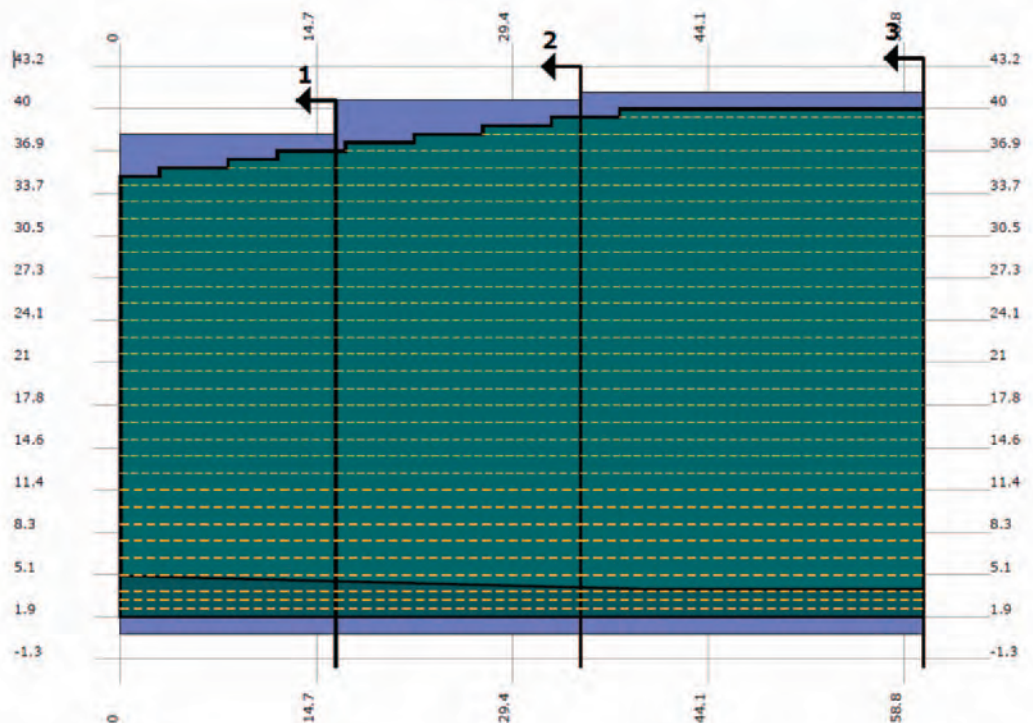
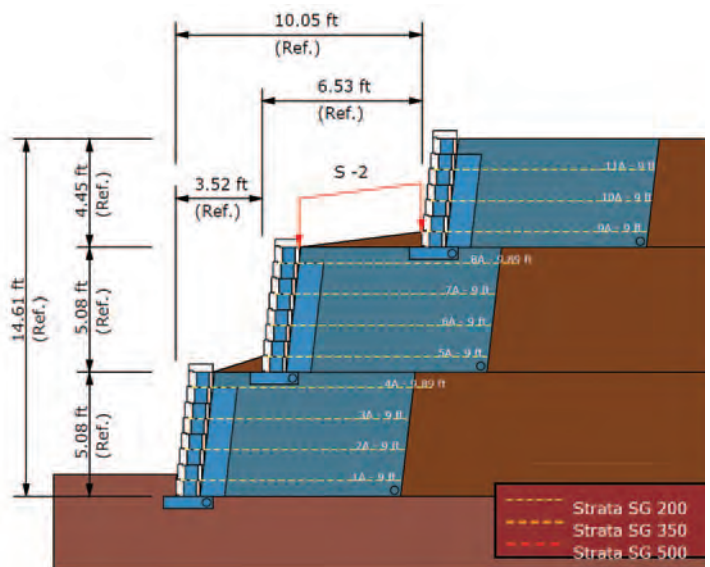
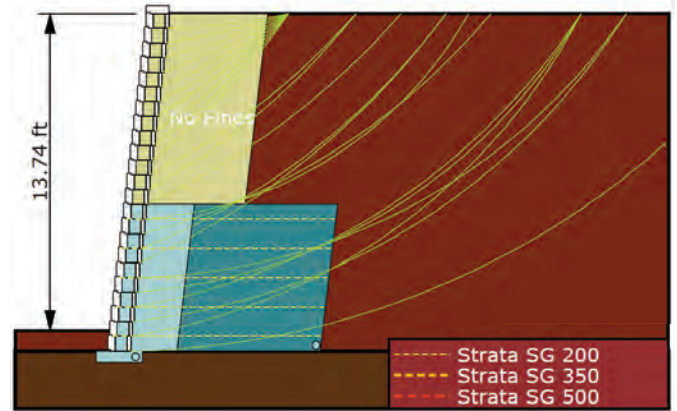


- ▶ Develop cost effective solutions to achieve more buildable land.
- ▶ Model actual loading and above wall conditions from roadways to building foundation loads.
- ▶ Using our Smart Design Wizard, step through your design to achieve an Industry Best Practice Design approach.
- ▶ Incorporate design details for managing above and below grade water conditions.
- ▶ Model actual site and soil conditions to provide a project focused design.



## AB Walls 3D+Terraces

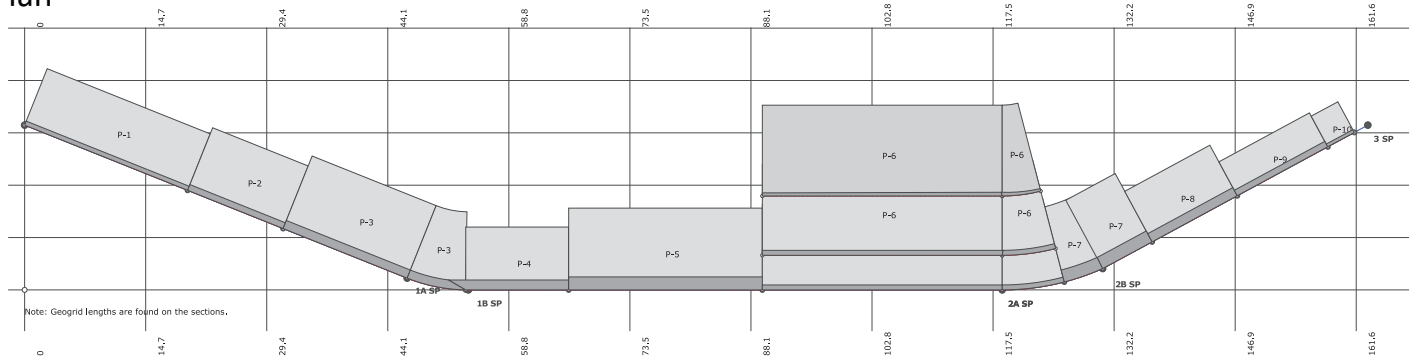
- ▶ Overcome site limitations by employing alternate design approaches with No-Fines Concrete to limit excavation requirements.
- ▶ Expand your design tool box by incorporating multiple design approaches into one design.
- ▶ Use state of the industry design approaches to understand load concentration and ways to address those loads.
- ▶ Develop cost effective, environmentally friendly design solutions by combining site soil with structural fill in the same structure.
- ▶ Provides the only full design software for developing terraced wall solutions.
- ▶ Expand deliverables by providing a:
  - ▷ Complete material quantity estimate.
  - ▷ Typical design details.
  - ▷ Editable MathCAD files for preparing full hand calculations.
  - ▷ Excel based comparison tool to evaluate design output to other design methodologies.



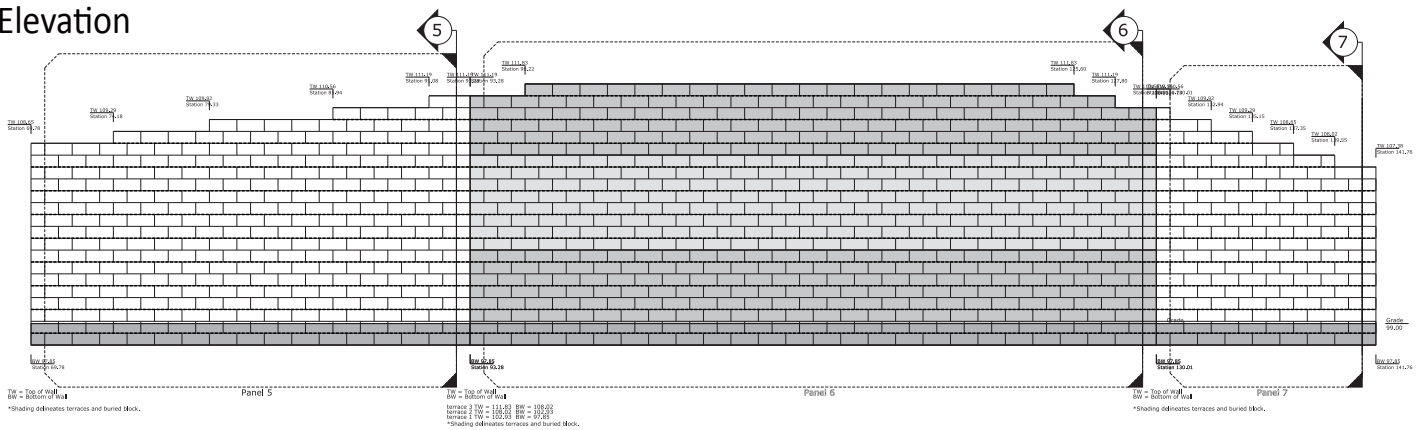
# AB Walls - Standard Output Capabilities

- ▶ Standard output capabilities providing Construction Drawings which incorporate Plan, Elevation, Panel Section, and Typical Detail views.
- ▶ Formatted for simple pdf outputs or .dxf for use in any CADD program.
- ▶ Includes full editable project specifications.

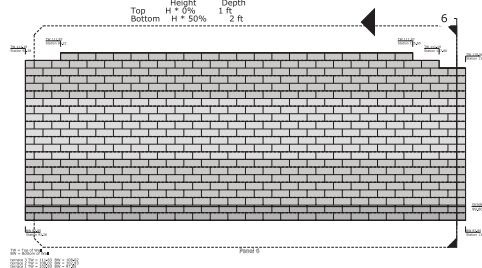
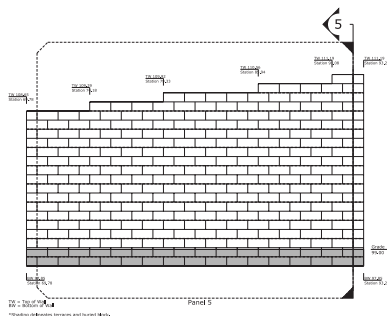
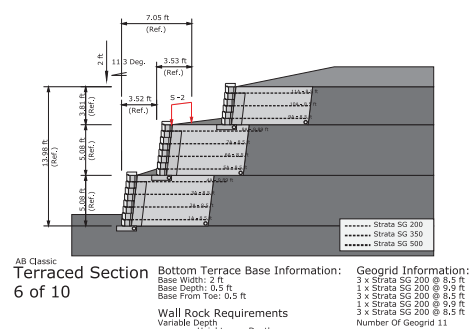
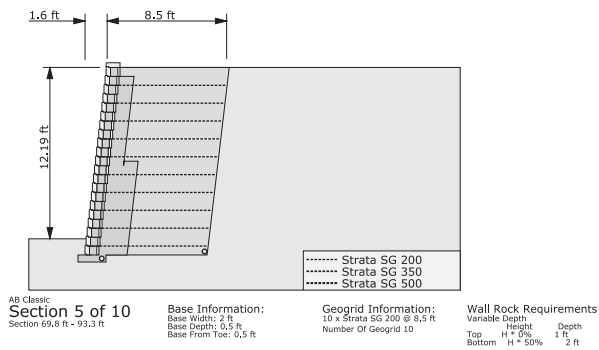
## Plan



## Elevation

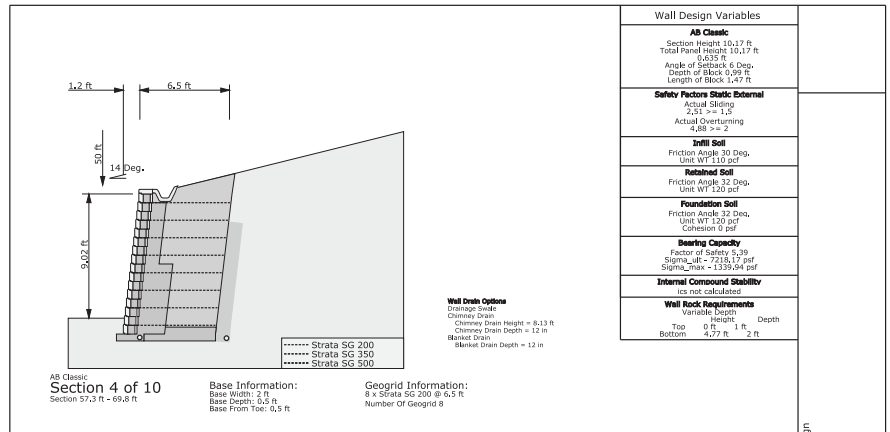


## Panels and Panel Sections



# AB Walls - Standard Output Capabilities

- ▶ Complement your Construction Drawing output with a complete submittal package for permitting requirements.
- ▶ Output your design to ReSSA to perform a full global stability analysis for the site.



**Wall Design Variables**

K<sub>ai</sub> = Active Earth Pressure Coefficient Infill = 0.305  
 K<sub>ar</sub> = Active Earth Pressure Coefficient Retained = 0.275  
 H = Wall Height = 10.17 ft  
 H<sub>e</sub> = Effective Height = 11.59 ft  
 H<sub>e,i</sub> = Effective Height = 10.64 ft  
 i = Slope = 14 Deg.  
 L<sub>int</sub> = Effective Slope = 14 Deg.  
 L<sub>ext</sub> = Effective Slope = 14 Deg.

Setback = 90 - Beta Angle = 6.73 Deg.  
 W<sub>f</sub> = Weight of Facing = 1297.83 plf  
 W<sub>t</sub> = Total Weight = 7664.67 plf  
 F<sub>a</sub> = Active Force = 2213.06 plf  
 F<sub>av</sub> = Vertical Force = 805.1 plf  
 F<sub>ah</sub> = Horizontal Force = 2061.42 plf  
 F<sub>r</sub> = Resistance Force = 5169.98 plf

**Internal Design Calculations (Static)**  
Section: 4

Geogrid Number	Geogrid Elevation ft	Geogrid Length ft	Tensile Force plf	Allowable Load plf	Factor Safety Overstress	Factor Safety Pullout Block	Factor Safety Pullout Soil	Efficiency
8A	107.38	6.5	47.92	1279.33	40.05	44.11	5.28	3.75
7A	106.11	6.5	95.27	1279.33	20.14	23	5.37	7.45
6A	104.84	6.5	146.16	1279.33	13.13	15.53	5.51	11.42
5A	103.57	6.5	197.04	1279.33	9.74	11.92	6.81	15.4
4A	102.3	6.5	247.93	1279.33	7.74	9.79	8.11	19.38
3A	101.03	6.5	298.81	1279.33	6.42	8.38	9.4	23.36
2A	99.76	6.5	349.69	1279.33	5.49	7.38	10.7	27.33
1A	98.49	6.5	400.58	1279.33	4.79	6.64	11.99	31.31

Export your final design to a .rb file for a full 3D model for incorporation into Revit drawings or to use SketchUp to help your customer better visualize your solution to delivery more buildable land on their site.

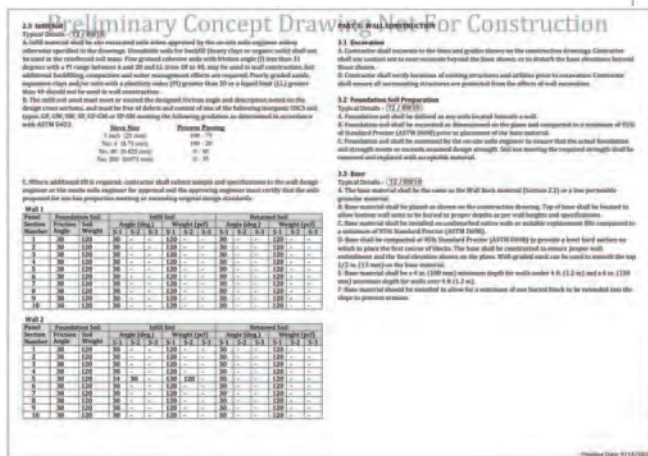
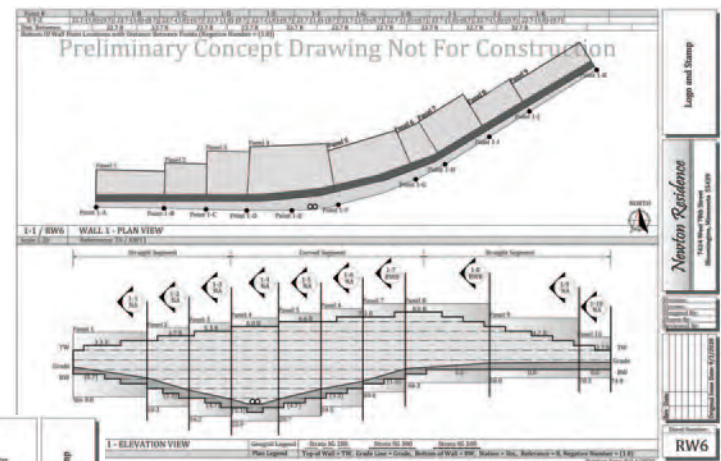
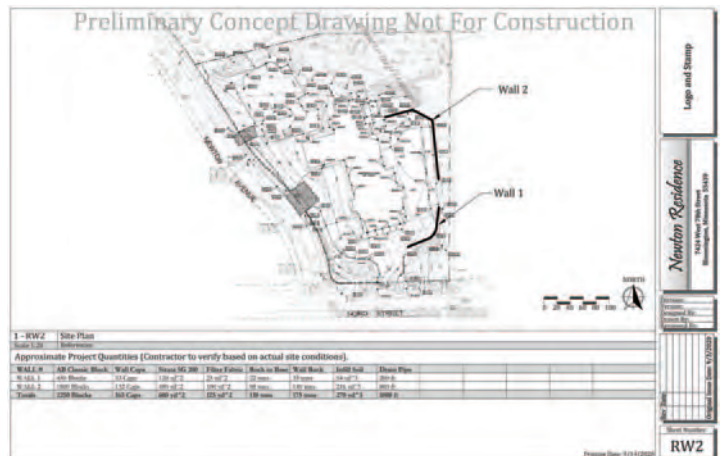


# AB Walls - AB CADD

AB Walls now includes a full Computer Aided Design and Drafting program. This establishes new outputs that provides a full set of Construction Drawings that allow you to provide the full story of everything that a contractor or inspector needs to meet your precise design requirements on site.

This full AB CADD output includes:

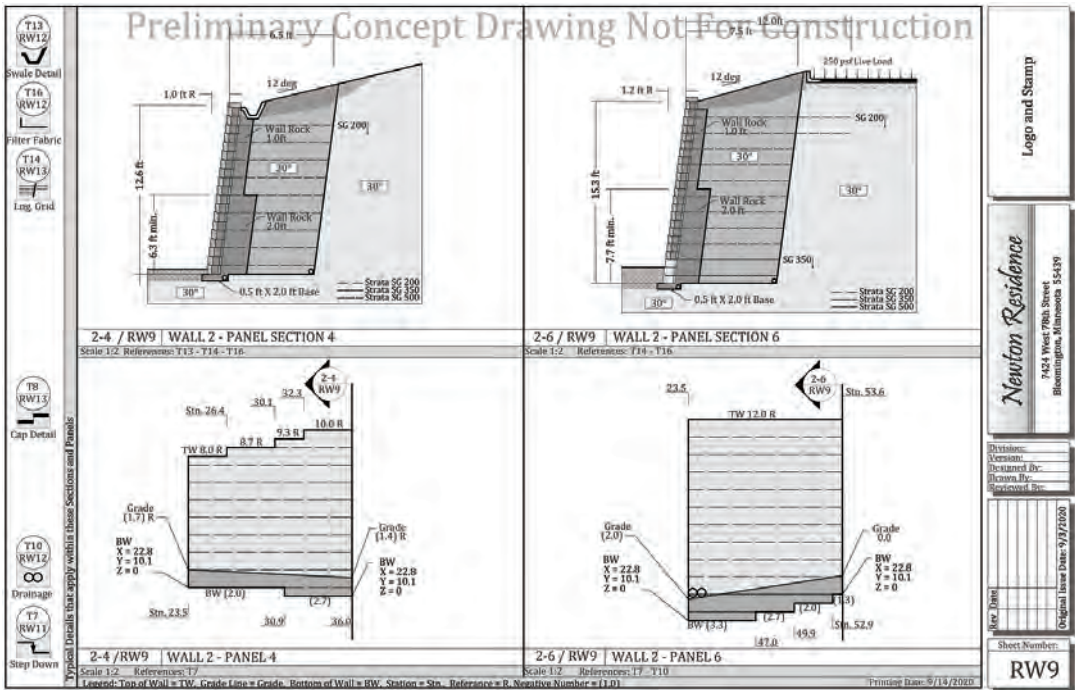
- ▶ A 3D visual of your retaining wall
- ▶ Incorporation of a site plan to allow you to combine several walls into one set of Construction Drawings.
- ▶ Full material estimate for each wall.
- ▶ General Specifications and Project Special Consideration Notes.
- ▶ Plan and Elevation Views.
- ▶ Panel and Panel Section Views.



- ▶ Typical Details.
- ▶ Cross references all notes and typical details to appropriate portions of the project.

# AB Walls - AB CADD

Save staff time both in consolidating details for your design and creating your final drawings while producing state of the industry construction drawings. Create a standalone retaining wall drawing package or simply integrate these outputs into your CADD program of choice. This new design package will also help the contractor tell the complete story of what it will take to build an Allan Block retaining wall with easy to read documents that walk you through the build process.



**AB Walls 3D+Terraces software is FREE.**

Contact us at [engineering@allan-block.com](mailto:engineering@allan-block.com) to request your copy today.

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Division:  
Version:  
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**RW9**

Tutorials on AB Walls are available to help you provide more value to your customer by maximizing their site and quickly become an expert using our support and tools.

Check out [allanblock.com/EngTraining](http://allanblock.com/EngTraining) to sign up today.

CEU's are available.

