Sustainable Erosion Control Solutions

You can trust!

TIDEWALL™

The best value in vinyl sheet piling

LONG LIFE
COST EFFECTIVE
RESISTANCE TO UV
RAPID INSTALLATION
ENVIRONMENTALLY FRIENDLY

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Tidewall vinyl sheet piling offers tremendous value to almost any sheet piling project. Much lower cost than steel or concrete alternatives, it is a strong, lightweight, UV and impact resistant, long-lasting product with major advantages. Tidewall does not rust, corrode, crack, or spall. Tidewall is inert, and friendly to the environment around it. Tidewall retains its structural integrity for decades, and is warrantied for 60 years.

For flood protection, erosion walls, seepage barriers, or retaining walls, Tidewall vinyl sheet piling can provide a permanent, high-value solution for your project.

APPLICATIONS

Dike and Flood Walls
Erosion Barriers
Highway Construction
Retaining Walls
Cut-off (seepage) Walls
Canal Containment
Marina Protection
Controlling Coastal Erosion
Temporary or Permanent Shoring
Canal Bank Stabilization

About Tidewall

The Tidewall dream team was formed by the merger of the original vinyl seawall manufacturer, Bama Plastics; and a premier vinyl recycling company, Regenex Corporation.

Bama Plastics brings more than 20 years of contract sheet piling manufacturing to our partnership; more than any other company. In fact, you may be surprised to discover that several sheet piling suppliers don't even do their own manufacturing. Much of the sheet piling installed under another name was in fact originally produced under contract by Bama Plastics.

Regenex Corporation has been a leader in the vinyl recycling industry since 1992. Over the years, Regenex has supplied millions of pounds of premium recycled vinyl window compound to the vinyl sheet piling industry. Vinyl window compound is the best, most weatherable, impact modified compound for vinyl sheet piling. Other vinyl sheet piling suppliers may use lower grade siding, fencing, or pipe grade compounds.

The partnership of these two companies to form Tidewall offers tremendous benefits. We have the ability to completely control our quality, insuring a beautifully finished, premium quality wall. From the specification and sourcing of the raw material, to the careful processing and blending, to the state of the art extrusion, our quality is second to none.

This vertical integration also gives us unmatched cost control. Because of this, we have made it our goal to make Tidewall sheet piling more affordable to you. We welcome price comparisons between Tidewall and other sheet piling products.

Tidewall vinyl sheet piling has been installed in many countries around the world, for flood walls, erosion protection walls, cut-off walls, etc. The combination of performance and low cost leads to our motto "THE BEST VALUE IN VINYL SHEET PILING".

One final comment: Bama Plastics and Regenex Corporation both built their reputations upon outstanding customer service, and that tradition continues with Tidewall. We bend over backwards to meet our customer's needs, and when we make a commitment, we will live up to it. You can count on it!

APPLICATIONS

Multi-wall

Dikes and Flood Walls

Tidewall is an excellent option for flood protection walls. Either as a stand-alone wall, or to increase the height of an existing dike, or in a terraced multi-wall system, Tidewall is a cost-effective solution to protecting flood prone areas.

Stand-alone

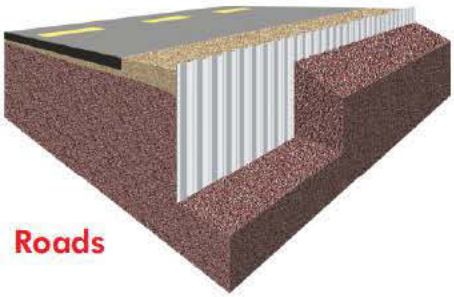
Erosion Barriers

Navy Style

Tidewall has long been used to control erosion at the interface between land and water. Property located on lakes, canals, ponds, and other waterways is subject to erosion that can recede the shoreline. Tidewall provides a permanent solution that eliminates erosion, and improves the use and functionality of the property.

Cantilevered

Road Construction



Roads

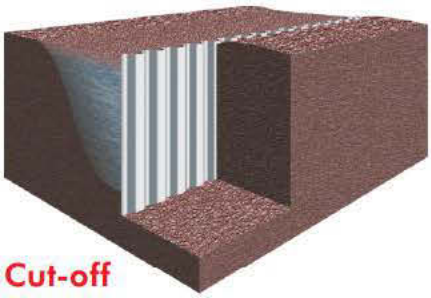
Tidewall can be used in several ways in road construction. First, for roads that are built across a slope, Tidewall has been used as a retaining wall to allow construction of a shoulder, and to diminish the gravitational stress on the roadbed. Second, it can be used as a cut-off or seepage wall to keep subterranean water away from bridge abutments and road supports.

Retaining Walls

Tidewall can be used as a retaining wall, either as a single wall or as a series to terrace a sloped surface, allowing more effective utilization of the land. Especially in applications where aesthetics are important, Tidewall retaining walls provide a superior alternative to steel or wood.

Retaining

Cut-off (seepage) Walls

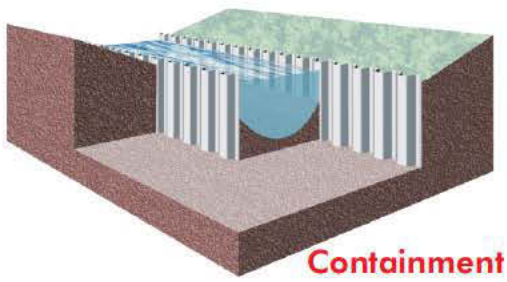


Cut-off

Tidewall can be used quite effectively to control the flow and seepage of subterranean fluid. Many applications, from the protection of structures, to the containment of landfill effluent, to wetlands management, can effectively utilize Tidewall vinyl sheet piling to create a barrier to underground fluid migration.

Canal Containment

Managing and controlling water resources via canal structures is becoming more important in many areas. Tidewall offers an effective low-cost alternative for canal containment.



Containment

BENEFITS

	TIDEWALL	Steel	Concrete	Wood
Cost	Low	High	Medium	Low
Weight	Light	Heavy	Extra Heavy	Medium
Resistance to Corrosion	High	Low	N/A	N/A
Resistance to Chemical & Sea Water Environment	High	Low	High	Low
Resistance to Cracking & Spalling	High	N/A	Medium	N/A
Warranty	60 Years	Varies	Varies	No
Environmentally Friendly	Yes	Yes	No	No
Locks	Yes	Yes	No	No
Aesthetics	High	Low	Medium	Medium
Installation	Easy	Easy	Difficult	Moderate
Design Flexibility	High	High	Moderate	High

COST - Tidewall vinyl sheet piling costs much less than the alternatives.

WEIGHT - Tidewall is much lighter and easier to ship and handle than any alternative.

RESISTANCE TO CORROSION - Unlike steel, Tidewall will not rust or corrode.

RESISTANCE TO CHEMICAL & SEA WATER ENVIRONMENT - Tidewall can be used in high salinity and many other corrosive environments.

RESISTANCE TO CRACKING & SPALLING - Unlike concrete, Tidewall will not crack or spall over time.

WARRANTY - Tidewall offers a 60 year transferrable warranty.

ENVIRONMENTALLY FRIENDLY - Tidewall is produced from 100% recycled rigid PVC compound. Further recycling of the material is also possible.

LOCKS - Tidewall locks are designed to allow the sheets to slide together smoothly, but remain locked together under load. It is possible to seal the locks to completely prevent moisture penetration.

AESTHETICS - Tidewall will maintain its appearance for many decades, unlike alternative materials.

INSTALLATION - Tidewall installs easily, using equipment and techniques commonly available.

DESIGN FLEXIBILITY - Graceful curves are possible, as well as clean. sharp corners, depending upon the project requirements.

TIDEWALL™

Tidewall is manufactured from exterior grade highly weatherable, UV stabilized rigid PVC.

Data Sheet

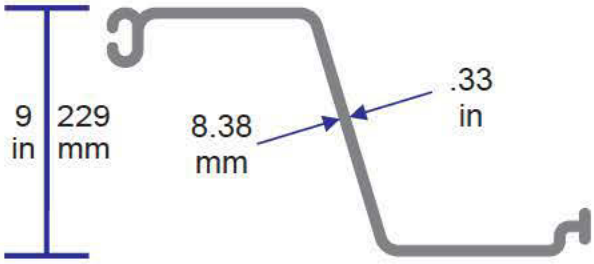
	UNIT	ASTM	TW25	TW30	TW35	TW50	TW70	TW75	TW80	TW85	TW95
Section Width (W)	mm	–	457	508	305	508	457	457	457	457	457
Section Depth (D)	mm	–	152	178	178	203	228	254	254	254	305
Flange Thickness (T)	mm	–	6.35	6.35	6.60	7.62	8.39	8.89	10.41	11.18	11.70
Weight	kg/m	–	7.10	8.05	5.07	9.41	8.91	10.28	11.58	12.06	13.25
Length (stock)	m	–	11.95	11.95	11.95	11.95	11.95	11.95	11.95	11.95	11.95
Moment of Inertia	cm^4/m	–	3,742	5,653	5,708	9,655	12,008	17,698	19,241	22,709	32,179
Section Modulus	cm^3/m	–	489	623	651	866	1,050	1,339	1,462	1,717	1,990
Ultimate Moment	kg-m/m	–	2.263	2,890	3,010	4,005	4,860	6,194	6,767	7,948	9,224
Allowable Moment	kg-m/m	–	1,132	2,890	1,505	2,002	2,430	3,097	3,383	3,980	4,612
Tensile Strength	Mpa	D638	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8
Flexural Strength	Mpa	D790	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Modulus of Elasticity (MD)	Mpa	D790	2,620	2,620	2,620	2,620	2,620	2,620	2,620	2,620	2,620
Notched Izod Impact Test	kg/cm	D256	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46
Heat Deflection Temp.	°C	D648	70	70	70	70	70	70	70	70	70

Tidewall Vinyl Sheet Piling is engineered for the sheet piling construction industry according to "United States Army Corp of Engineers design guidelines and tested to ASTM material specifications".

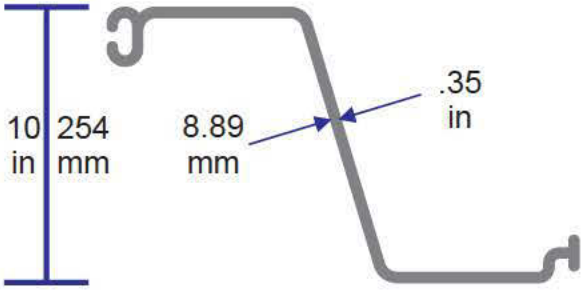
PROFILES

Z Profiles

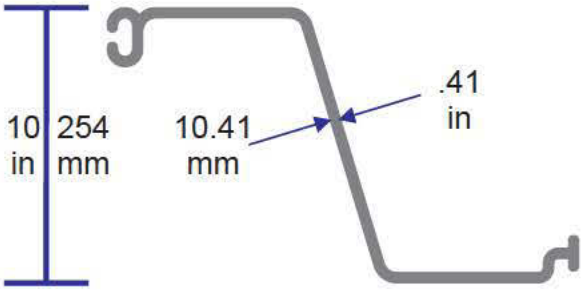
TW70



TW75



TW80



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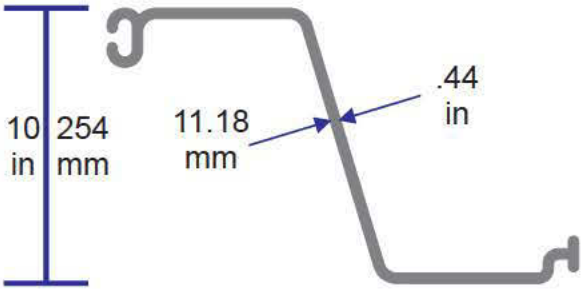
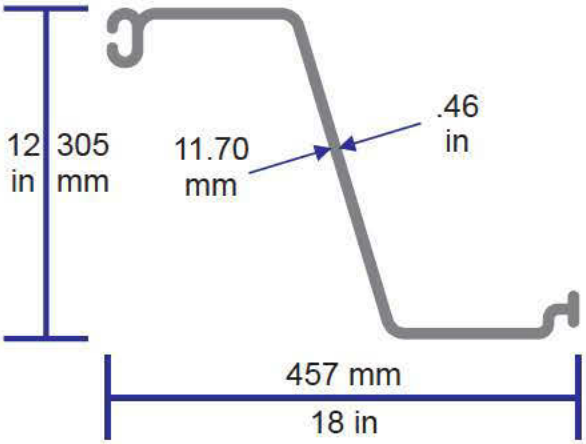


TW95



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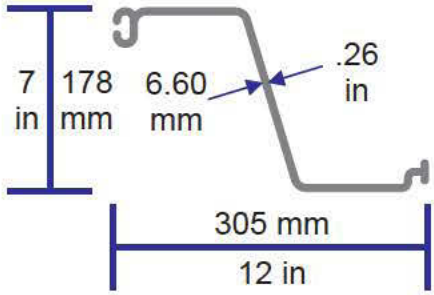
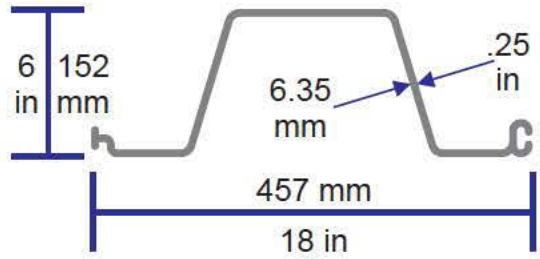
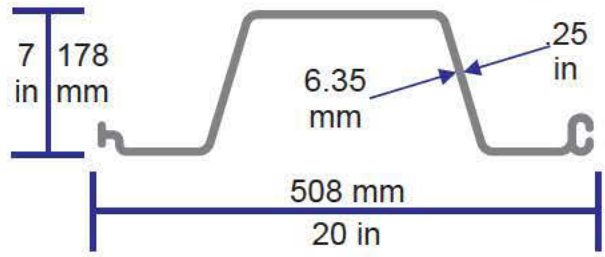


Box Profiles

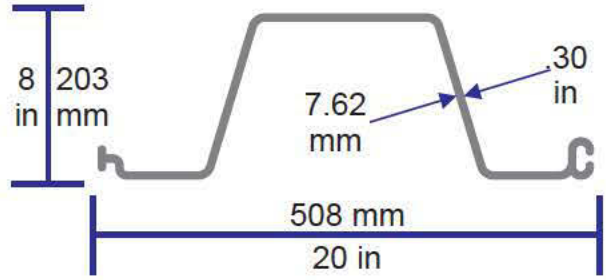
TW25



TW30

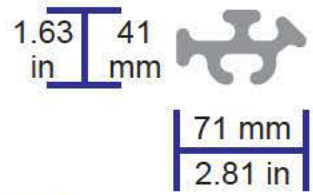


TW50

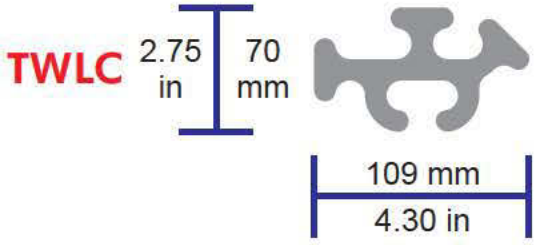


Corner Profiles

TWSC



TWLC



Engineering & Use of Tidewall

The use of Tidewall in any application should be done in compliance with engineering plans, drawings, and documentation. These should be developed and submitted for the particular project by a structural engineer or designer familiar with the materials and local site conditions. The application and installation of Tidewall should follow precisely these design specifications.

Installation

Tidewall is designed to be driven into the ground similar to steel sheet piles. Many different methods and equipment are used for driving Tidewall, but these are the most common driving methods.

VIBRO HAMMER

A vibro hammer is used to lift the sheets, sometimes in tandem, and vibrate the sheets into the soil. Much lighter weight vibro hammers should be used for Tidewall than would be used for steel piling, however.

PLATE COMPACTOR

In areas where the soil is moderately stiff or less, a plate compactor on a backhoe can drive Tidewall sheets smoothly and efficiently.

COMPRESSION DRIVING

Where the soils are very soft, simple compression driving works well to install Tidewall sheets. The bucket of a backhoe is used to exert downward pressure on the sheets, pressing them smoothly into the ground. This method works better with the heavier Tidewall Sheets such as TW75 and above.

Vietnam Flood Walls - Ho Chi Minh City, Vietnam

Installation:	**TW25, TW40, TW80**
Linear Feet/Meters:	**5,300 Lineal Meters**
Sheet Lengths:	**Varied**
Soil Conditions:	**Sand/Silt, some clay**
Existing Wall:	**None**
Contractor:	**CNS Corporation**
Design Engineer:	**CNS Corporation**
Installation Method:	**Tracked Crane with Vibro Hammer**

Tidewall was installed as a flood wall on several canals prone to flooding. The earthen dikes would erode and fail, allowing the flood waters to breach the dike. The Tidewall sheets were driven into the center of the dikes, with the wall projecting above the top of the dike to a specified height, providing a permanent solution to the flooding problems.

Tairua Marina - Tauranga, New Zealand

Installation:	**TW80 Clay**
Linear Feet/Meters:	**510 Lineal Meters**
Sheet Lengths:	**5.4 and 6.4 Meters**
Soil Conditions:	**Sand**
Existing Wall:	**None**
Contractor:	
Design Engineer:	
Installation Method:	**Plate Compactor**

Tidewall sheets were used to construct a secure, permanent wall around a new high-end marina in Tauranga, New Zealand. Tidewall was chosen for its combination of aesthetics, corrosion resistance, and low cost. Precast concrete sections were placed atop the wall, and the final result is a beautiful wall that will last for decades.

Road Erosion - LaFourche Parish, LA

Installation:	**TW75**
Linear Feet/Meters:	**960 Lineal Meters**
Sheet Lengths:	**3 Meters**
Soil Conditions:	**6' Organic soil above clay**
Existing Wall:	**None**
Contractor:	**Barriere Construction**
Design Engineer:	**Duplantis Design Group**
Installation Method:	**315 Cat Excavator with flat press plate**

Due to the extreme slope of the land, this road in Lafourche Parish in Louisiana was cracking and sliding down the slope, causing unsafe conditions and resulting in ongoing repair expenses. The problem was corrected using Tidewall TW75 in 3 meter long sheets, with approximately 2/3 meter of exposed height. This brought the shoulder of the road closer to the elevation of the road itself, relieving the stress on the asphalt and allowing permanent repairs to be made.

Thailand Floodwall - Bangkok, Thailand

Installation:	**TW80**
Linear Feet/Meters:	**250 Lineal Meters**
Sheet Lengths:	**6 Meters**
Soil Conditions:	**Sand and Clay**
Existing Wall:	**Masonry Concrete behind**
Contractor:	**CLS**
Design Engineer:	**CLS**
Installation Method:	**Portable Pile Hammer**

Tidewall was installed as a flood wall surrounding a valuable commercial installation. Thailand experienced a major flood in 2011, resulting in a need for cost-effective floodwalls throughout populated areas. Tidewall was an ideal solution; a 2 meter high wall finished with a steel reinforced concrete cap.

Sustainable Erosion Control Solutions

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TIDEWALL - USA

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