



# Your Guide to Seawalls for Erosion Protection in Central New York

Providing a **solid barrier** between your land and the water, seawalls protect your shoreline from the erosive forces of **wave action**, **wakes**, and **storm surges**.

These durable structures are placed parallel to your shoreline, to absorb and deflect the energy of water while also stabilizing land behind them. This prevents the loss of your soil, protects built environments close to the water's edge, and provides long-term peace of mind.



Read on to uncover what you need to know about choosing, and building, seawalls here in Central New York!



(315) 430-0048



[hello@cdpexcavating.com](mailto:hello@cdpexcavating.com)



<https://cdpexcavating.com>



# Key Considerations For Seawalls

For Central New York, with our significant bodies of water like Lake Ontario and the Finger Lakes, durable erosion protection is critical. A seawall suited to your specific conditions is a key investment that ensures enduring protection of your waterfront property, while maintaining natural beauty and ecological balance.

One consideration to keep in mind where seawalls are concerned, are the potential environmental impacts of construction. Seawalls could lead to increased erosion on nearby properties or down the shoreline as wave energy is deflected. Additionally, they may disrupt local ecosystems and natural coastal processes. Thankfully, there are tactics and techniques that can be implemented to balance environmental impacts while delivering lasting erosion defense.

In areas where wave or wake action is significant and erosion is a serious concern, seawalls are a robust solution to protect your land over the long-term. With the right construction techniques and care, they can be both attractive and durable.



# What Materials Can You Use For A Seawall?

The materials chosen for your seawall are key in determining its overall longevity and effectiveness. Here are the materials commonly used to build seawalls in our tricky conditions:

## CONCRETE

Often favored for its durability and strength, concrete can be poured and molded into various shapes, making it a versatile solution. Reinforced concrete, in particular, is used for its resistance to harsh marine conditions.

## STEEL

While steel offers strength and can be driven deep for solid anchoring, it's not the most attractive solution and can be prone to corrosion without protective coatings. Sheet piles are an example of a steel seawall solution, which can be effective in certain environments.

## STONE

Stone is another popular material for seawall construction. Referred to as "rip-rap", it's a natural material that blends well with the environment while delivering enduring protection from wave and wake action. Also good for stabilizing slopes and preventing soil erosion!

## WOOD

A traditional material used in seawalls, wood products such as treated timber can provide a more natural aesthetic. It's also easier to install and less costly but will typically have a shorter lifespan due to susceptibility to rot and marine insects.



# The Process for Building a Seawall

Installing a seawall along your waterfront property can be a large and complex project. But, don't feel discouraged! An experienced contractor can help you navigate the entire project, from planning to completion. And while each seawall is unique, most installations follow these stages:

1

## Site Assessment

To understand your specific needs a thorough examination of your properties' geography, tidal patterns, wave energy, and environmental considerations must be conducted.

2

## Design

Engineers design seawall specifications such as height, width, and profile based on the site assessment. A properly-designed seawall must ensure the structure withstands forces it will be subjected to.

3

## Permits

It is a requirement to acquire permits for seawall construction in New York State, typically from the Department of Environmental Conservation and the U.S. Army Corps of Engineers. Beginning seawall construction without a permit can result in significant penalties and refusal of permission.

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## Foundation Preparation

A stable foundation is crucial for long-term performance of your seawall. This process can involve excavation, leveling, and sometimes the placement of protections to prevent undermining of the seawall.

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# The Process for Building a Seawall

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## Material Sourcing

Depending on the type of seawall being installed, the appropriate materials are sourced and delivered to your property.

6

## Construction

This phase may include the placement of interlocking steel sheet piles, pouring of concrete, installation of stone rip-rap or wooden sections, and anchoring the structure to the bedrock or substrate.

7

## Backfilling

The land side of the seawall is often backfilled with soil, concrete, or other materials to enhance stability and ensure efficient drainage.

8

## Finishing

Final touches may include surface coatings for steel to prevent corrosion, concrete treatments to mitigate seawater damage, and landscaping to integrate the seawall into the surrounding environment.

## Benefits to Seawalls

- Effective at preventing erosion from waves and surges
- Long lifespan if properly maintained
- Variety of materials and designs available
- Strong and durable erosion protection

## Downsides to Seawalls

- Can be more expensive to construct
- May need maintenance and repairs over time
- Environmental impact needs to be considered



# How to Find a Great Contractor for Your Seawall Project



Hiring an experienced contractor is the best way to achieve quality, long-lasting, and high-performing results for your erosion control project in Central New York.

Here are the top things to look for when assessing a contractor to help you install an excellent seawall...



## ***Expertise***

Contractors with experience in shoreline and erosion control construction have the skills and knowledge to properly engineer, design, permit, and construct your project. They understand how different materials and techniques perform in your local conditions.



## ***Quality Focused***

Professional contractors have access to the right equipment and techniques to build erosion protection that meets code and will last. A quality seawall demands proper installation, compacted backfill, reinforced footings, and more.



## ***Permitting Knowledge***

A great contractor is familiar with the permitting process and requirements in your area. They can ensure your project meets all regulations, which is key for approval.



## ***Problem Solvers***

Experienced contractors have seen many unique situations and overcome the challenges that Central New York can bring. If an issue comes up, they will be able to troubleshoot and handle it efficiently.

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## ***Proper Licensing***

They should have an up-to-date contractor's license and be approved to work in your area. Be wary of "fly by night" operators who lack the proper credentials.



## ***Insurance***

Any good contractor will carry general liability insurance that provides protection and reassurance to both you and them. Don't be afraid to ask them for proof.



## ***References***

Ask for, and check, references from their recent clients. Contacting 2-3 past customers and asking if they were satisfied can give you a good idea of the quality and service you can expect.



## ***Detailed Quotes***

Low-quality contractors can use clever quotes to hide the true cost of the project, waiting until you've signed a contract to strike with change orders and added costs. Always obtain a written quote outlining the full project scope and specifications. Avoid vague verbal quotes.

By hiring the right local contractor, you can have lasting confidence your shoreline will be protected against erosion with a quality installation from a reliable company. Avoid the temptation to hire the cheapest contractor, this tactic often results in poor results and extra costs later on.

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Don't let your land slip away from under your feet! There's no better time to act than right now to preserve and protect your property for future generations.

Get in touch with a seasoned contractor who will give you honest advice and make your project easy. Our friendly team at **CDP Excavating** has provided seawall site preparation, excavation, and installation services for **more than 17 years** in Central New York.