



Residential Natatorium Guide

Combined Energies, Inc.

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Our investment guide will help you learn more about Combined Energies' design process to see why we're different and to help you decide if we might be the right fit for your project.

Designing and constructing a pool is a significant investment. It's an emotional investment as much as a financial one; an intimate process. It's no wonder that many of our clients become close friends as a result of our collaboration. And, like any relationship, it takes time to build trust and understand how we can best work together.

This guide is the first step in that process. We've created it so you can learn more about how we work, how we think, and the things we think distinguish us from our competitors.

If we've left anything out or you still have questions after reading through it, please reach out, we're here to help!

Sincerely,

Mark Russell

Mark Russell
President





na·ta·to·ri·um

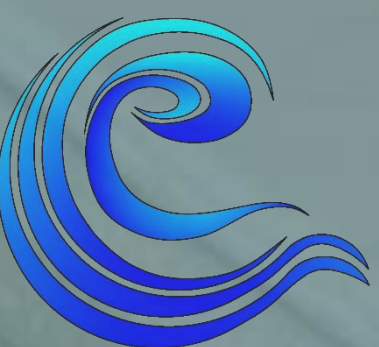
a building or complex that contains
one or more swimming pools



About us

Combined Energies, Inc. is a full-service Design/Build firm, ready and able to meet any of your indoor swimming pool room needs. If your indoor swimming pool project needs a Designer, Architect, Engineer, Aquatic Consultant, Builder, Contractor, Subcontractor, or Maintenance Crew, we can help.

We create custom indoor facilities for pools, spas, cold plunge pools, saunas, and steam showers. We provide solutions for these specific humid environments whether they are integrated into your home, or a stand-alone accessory building on your property.



Why us?

Turnkey Design/Build/Maintain Solutions:

As a full-service operation, we handle every aspect of your project from inception to completion and beyond. We simplify the process, ensuring a seamless experience with exceptional results.

Comprehensive Consultation Services:

We offer expert consulting to tailor our services to your specific needs, ensuring your vision is perfectly realized and functional.

Innovative Customization:

We specialize in creating unique, personalized environments tailored to the specific needs of our clients. From luxury residential pools to expansive commercial installations, we bring your dream to life with precision and creativity.

Commitment to Quality and Durability:

Our commitment to using only the highest quality materials and the latest construction techniques means your investment is built to last and always impressive.



Our Services

Design

Combined Energies, Inc. provides full architectural and engineering services. We provide design services from Schematic Design, Design Development to Construction Documents, including complete architectural, mechanical, electrical, swimming pool and spa designs. We can also provide design services related to zoning review, building and pool code compliance, and existing swimming pool renovation & modernization.

We also offer specialty aquatic consultation services to architects, landscape architects, builders and contractors, and can join your design team to provide consultation services for any type of project involving an indoor swimming pool.

Construction

Combined Energies, Inc. is a licensed general contractor. We provide construction services from initial project budgeting, full project pricing, as well as complete construction services from the initial excavation to final completion for any type of project involving an indoor swimming pool. We also provide specialty subcontractor services to construction managers and general contractors for work related to swimming pools, hot tubs, and pool equipment, as well as installing the specialized HVAC and dehumidification systems necessary in indoor swimming pool facilities.

Maintenance

Combined Energies, Inc. provides complete pool service and maintenance for your swimming pool, hot tub or spa, including the pool pumps and HVAC equipment. Our Certified Pool Operators and technicians make sure your pool facility is in top working order.

We monitor the water and air quality, inspect and maintain the pool pumps, filtration and sanitation equipment, pool piping and related control devices, and keep the pool area clean and sanitary. We also provide upgrades and modernization to existing pools and pool equipment.



Our Capabilities

Our experienced staff can provide the specialized design, engineering, and construction skills needed to construct your indoor swimming pool facility. Emphasizing collaboration and precision, we employ the latest industry-standard software tools to facilitate seamless integration with consultants and other design professionals.

In addition to construction, we offer comprehensive maintenance and service programs that extend the lifespan and efficiency of your pool, spa, and related equipment. Our dedication to quality and customer satisfaction drives us to provide exceptional service, tailored to the specific needs of our clients.

Architectural Design

Predesign

Site Selection

Schematic Design

Design Development

Permitting

Construction Documents

Budgeting

Specification + Scheduling

Mechanical Design

Initial Design

Sustainable Energy Design

Architectural Coordination

Other MEP Coordination and Integration

MEP Construction Drawings

Construction

Cost estimate review.

Constant contact between our construction and design teams.

Working relationships with subcontractors.

Hands-on site visit.

Shop drawing production and review process.

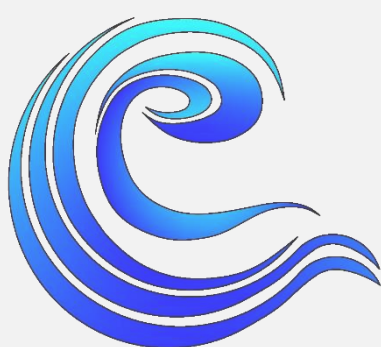
Project close out.

Maintenance and Service

Initial Startup and Monitoring.

Weekly or Biweekly Maintenance Visits.

Service on Mechanicals and Equipment.



Phases

Design professionals, for the most part, all use a similar series of steps to arrive at a finished project with the following phases:

01 Pre Design

Site Analysis

Zoning and Code Review

Programming

Existing Conditions Survey

Preliminary Budgeting

02 Schematic Design

Site Location and Orientation

Basic Design

Massing

Zoning and Code Compliance

Preliminary Budgeting

05 Construction

Interview

Contract Negotiation

Pricing

03 Design Development

Refinement of selected design

Decision Process and Adding More Detail

Basic Architectural Material Selections

Preliminary Permitting Review

Focused Budgeting

06 Construction Observation

Observe Construction

Administration of the Contract

Shop drawing review

Site visits + Quality Control

04 Construction Documents

Building Permit Application Process

Detailed Drawings Set

Schedules

Specifications

Pricing



01 Predesign

Client Requirements

- Site Survey
- Septic Design
- Existing Conditions Survey
- Signed Authorization Letter

Deliverables

- Approved Building Program
- Approved Preliminary Budget
- Owner's Schedule
- Architect's Schedule
- Permitting Schedule
- Initial Construction Schedule

During this initial phase, we gather crucial project information to inform the design process we're about to undertake. Here's what the predesign process entails for most of our projects:

Site Analysis: We evaluate your property's unique features, including, topography, zoning restrictions, microclimate, any green energy potential, and site limitations, to identify potential building sites and design opportunities.

Code Analysis: Before diving into any design, we thoroughly review zoning regulations, environmental factors, and permitting requirements to determine project feasibility and constraints.

Programming + Budget Analysis: Together, we compile a comprehensive list of desired spaces, pool requirements, and any project characteristics you wish to influence the design. We align all of these with your budget and adjust as needed.

Existing Conditions Survey: For renovation or addition projects, we conduct an existing conditions survey on your home to understand the buildings layout and conditions accurately.

Site Survey: For all projects we require a site survey that is in accordance with city building permit requirements. This should be completed at this stage to fully understand the site, property lines, setbacks, and any other influences to ensure we are providing a design that can be built.

The phase is complete when the building program and budget is agreed upon and all other materials have been gathered.



02 Schematic Design

Client Requirements

- Estimate Approval
- Sign-off on building concept
- Sign-off on updated schedule

Deliverables

- Schematic Site Plan
- Schematic Floor Plans
- Schematic Elevations
- Schematic Sections
- Preliminary Cost Estimate

During the schematic design phase, we work together to develop initial concepts and define the rough shape of the building that is influenced through the information gathered in the predesign phase.

Initial Schematic Design: We generate a design option to initiate our conversation of the overall project. We ensure your requirements are met and discuss any changes or alternations needed in the design. We do this using these tools:

Schematic Site Plan to explain where and how the building sits on the property.

Schematic Floor Plans to show how each floor is connected by each room/space within the building envelope.

Schematic Elevations to suggest what the exterior of the building will look like.

Schematic Sections to illustrate any spatial configurations and/or pool depth requirements.

Sometimes we provide a *Schematic 3d Model* to show complex designs to ensure our design intent is being communicated and all parties understand the project.

These deliverables serve as the project foundation for decision-making as the project progresses. They're intended to evoke new ideas and spark feedback from you and further our conversation; they are not final plans.

We often go through many Schematic Designs and 'broad brush' refinements to ensure the overall project is meeting your expectations.

A **Preliminary Cost Estimate** ensures the initial budget remains safely intact. We revise drawings (or sometimes budget) as required.

This phase is complete when an overall scheme is selected, and everyone agrees to move ahead.



03 Design Development

Client Requirements

- Sign-off on DD plans + design
- Sign-off on updated schedule

Deliverables

- Site / Grading Plan
- Floor Plans
- Exterior Elevations
- Sections + Interior Elevations
- Structural Concept
- Mechanical Systems Concept
- Updated Detailed Cost Estimate + Schedule

In this phase, we transition from the ‘broad brush’ schematic planning to a more refined set of plans. We begin to develop the design and generally start to ask more questions. This often requires more frequent and intense decision-making sessions and an increase in correspondence. This is the longest part of the design process.

As we draft floor plans and delineate the walls, windows, doors, and stairs, the project starts to take shape. We further refine room sizes, building volumes, and fully generate a 3d working model. We also implement any material choices and building system requirements. This process will highlight any potential problematic situations we must address and allows us to provide necessary solutions.

Together we select and develop any structural, mechanical, heating, and lighting according to your budget. This phase begins our coordination with any expert consultants. We always employ a structural engineer to ensure the integrity of the foundation as it sits on your specific site conditions and discuss any structural components. Additional consultants like civil, landscape, or lighting professionals may be brought in as needed.

Before we move on, we’ll confirm that the design is still aligned with the allocated budget and that there are no known obstacles to securing a building permit for the chosen design. An updated schedule is provided with all the current information taken into consideration which would include and selected material lead times. Scope and budget changes will be reconciled and once confirmed, we move on to the next phase.



04 Construction Documents

Client Requirements

- Signed Contract

Deliverables

- Permit Package
- Building Permit
- Construction Drawings

Typical Drawing Set Includes

- General Notes + Project Info.
- Site Plan
- Floor Plans
- Exterior Elevations
- Building Sections / Wall Sections
- Interior Elevations
- Details (interior/exterior)
- Mechanical plans
- Plumbing plans
- Electrical plans
- Pool plans
- Schedules
- Structural Plans
- Any additional required plans or documentation

Before the Construction Documents phase begins, we must obtain a Signed Contract in order to proceed. This contract delineates Scope of Work and outlines requirements by Owner, Designer, and Contractor. We use modified industry standard contracts depending on each project and our services being rendered.

In Construction Documents phase, we solidify all the decisions that have been made to date into a comprehensive drawing package that allows us to initiate a Permit Package. The type of information submitted for a building permit varies from city to city but generally consists of a basic stamped Architectural Drawing Set, Energy Efficiency documentation, and stamped Structural Plans. While the permitting process is typically straightforward, the process may require revisions to the design or drawing set in order to gain approval from the jurisdiction.

Upon obtaining a building permit, we finalize a detailed set of drawings and specifications that will be used by the building team for final pricing and executing the construction. This should be thought of as the project instruction manual.

Any significant building changes made after a building permit is issued must be approved by a signed Change Order as outlined in the contract agreement. Any substantial changes to the exterior envelope will most likely require re-submission and approval from zoning jurisdiction.



05 Construction

Deliverables

- Monthly Construction Invoices
- Real-time schedule updates
- Field Reports
- Punch List
- Certificate of Occupancy
- Warranties
- Testing + Balancing of Systems

During construction, we act as your on-site agent, meticulously overseeing progress and ensuring strict adherence to contract documents. We maintain an independent system of checks and balances to guarantee the highest standards of compliance throughout the project.

As the primary contractor, our dual role in design and construction allows us to quickly adapt to new opportunities, closely collaborate with the design team in real-time, and efficiently manage both aspects of the project. This control minimizes changes and accelerates project completion while maintaining our focus on quality.

Our proactive involvement during the Construction Documents phase enables us to fully integrate the project's design vision into every detail of construction. The construction phase is dynamic, and while you can choose to monitor progress closely or from a distance, we ensure transparency and open communication.

We host site meetings with the build team to address any questions and review progress.

Client involvement is highly encouraged during construction. We facilitate key walkthroughs to confirm design decisions, manage adjustments through payment applications and change orders, and provide all necessary supplemental information.

Upon reaching Substantial Completion, we conduct a detailed punch list and then issue a certificate of final completion. This step authorizes the release of the final payment and marks the project as move-in ready, ensuring a smooth transition to the operational phase.



Design Fees

Hourly Billing

Our design fees are billed on an hourly basis, which allows us to accurately account for the time spent on each project phase, from conceptualization through construction.

Cost Guidelines

While the cost of construction does not directly set architectural fees, it serves as a valuable indicator for estimating the scope of design work required. The architectural fees typically range from 15% to 20% of the actual construction cost. It is crucial to note that the 'actual' construction cost often differs from the initial budget, reflecting the true scale and complexity of the project..



Hourly Rates + Fees

Each member of our team is billed as they work on your project at the rates listed below. Some projects may require some or all of the additional services listed, estimates will be provided prior to undertaking any specialized services.

Principal

\$185/hour

List team members as necessary

Project Architect

\$165/hour

List team members as necessary

Job Captain

\$125/hour

List team members as necessary

Draftsperson & Office Personal

\$85/hour

List team members as necessary

Permitting

At cost

Consumables

Prints: \$1/SF

Consultants

At cost

Renderings + Physical Models

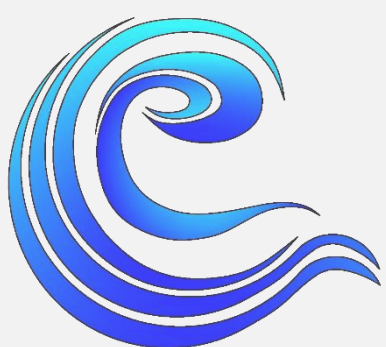
\$150/hour

Supplies at cost



Typical Residential Project Timeline

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	
Predesign	4 WEEKS														
Schematic Design		8 WEEKS													
Design Development				12 WEEKS											
Construction Documents							16 WEEKS								
Permitting									PERMITTING						
Construction												TBD			





Let us know how we can help you.
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