



City of Lake Geneva, 626 Geneva St, Lake Geneva, WI 53147- 262.248.3673- www.cityoflakegeneva.gov

CITY OF LAKE GENEVA SPECIAL PIERS, HARBORS, AND LAKEFRONT COMMITTEE
TUESDAY, SEPTEMBER 24, 2024 - 6:00 PM
LAKE GENEVA CITY HALL; COUNCIL CHAMBERS (MAIN LEVEL)

Members:

Chairperson Linda Frame, Alderpersons: Shari Straube, Sherri Ames, Peg Esposito, and Ken Howell

Watch this meeting on the City's live stream: <https://wi-lakegeneva.civicplus.com/319/City-Meetings-Video-Stream>

AGENDA

1. Meeting called to order by Chairperson Frame
2. Roll Call
3. Comments from the public limited to 5 minutes, limited to items on this agenda
4. Discussion/Recommendation regarding sea wall repair options in the Lagoon (Naomi Rauch, Kapur)
 - Rip Rap-Boulder
 - Cement Smooth Wall
5. Discussion/Recommendation regarding Lagoon Pier Replacement options
 - Floating Piers
 - Steel Piers
 - Slip sizes-18 foot maximum boat length
6. Discussion/Recommendation regarding Lagoon Dredging bids
7. Lagoon Project Financial Report with a full breakdown of Lagoon costs (Harbormaster)
8. **Adjournment**

*This is a meeting of the Piers, Harbors & Lakefront Committee.
No official Council action will be taken; however, a quorum of the Council may be present.
Requests from persons with disabilities who need assistance to participate in this meeting should be made to the City Clerk's office in advance so the appropriate accommodations can be made.*

Memo to the City of Lake Geneva

To: Piers and Harbors Committee

Date: September 18, 2024

From: Naomi Rauch P.E.

Subject: Lake Geneva Seawall – Seawall Replacement Options

City Council requested Kapur prepare a solicitation of construction bids for approximately 50-ft of seawall replacement within the Lagoon. The bid was to include two alternates – riprap shoreline and seawall replacement. In order to prepare for the seawall bidding process, CGC Inc. was contracted to perform geotechnical exploration and prepare a geotechnical report providing recommendations regarding site preparation and seawall design/construction including global stability analysis. We anticipate the results of the geotechnical analysis to be available within the next couple of weeks and require the following clarifications from the committee to move forward.

- 1) Is the riprap shoreline still a consideration for the City? If this option is considered it should be bid separately from the seawall options as it is likely to draw contractors of different specialties.
 - a) This option is the least expensive option:
 - i) Estimated Engineering Cost: \$2,000 - \$3,000
 - ii) Estimated Construction Cost: \$130,000 - \$150,000 (including sediment landfill costs)
 - b) Boat Slips: Not likely feasible to install piers along the armored shore due to the amount they would protrude into the lagoon
 - c) Example:



~~Harbormaster Erick Niles~~

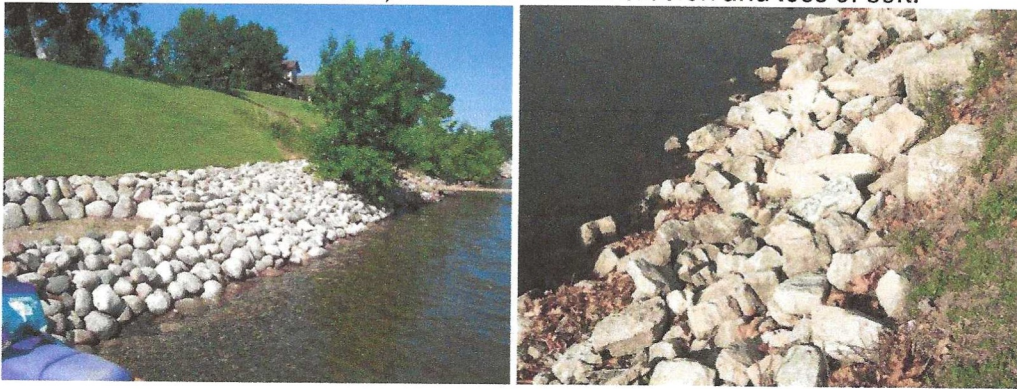
Vision: To create an exceptional lakefront experience for residents and visitors of Lake Geneva by delivering a welcoming environment and affordable and enduring amenities. As the Harbormaster, my hope is to enhance the beauty and enjoyment of the lakefront, while minimizing the impact on taxpayers. Through visionary concepts and deigns, I hope to keep the City of Lake Geneva's lakefront as a cherished destination for all.

Lagoon Project

Regardless of whether we choose to replace slips into the lagoon or not, the seawall needs to be repaired. Kapur has presented us with 3 different options:

1. Riprap

Riprap is a type of erosion control made up of large, irregularly shaped stones or boulders placed along the shoreline. The primary purpose of riprap is to protect the shore from the force of waves and water flow, which can cause erosion and loss of soil.



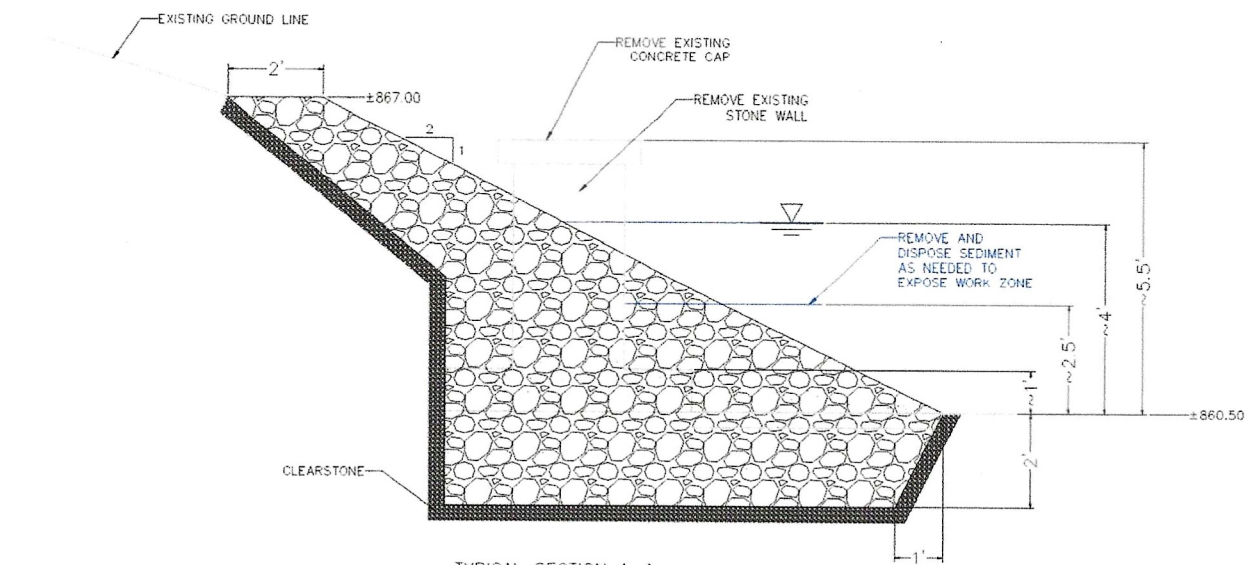
Pros to Riprap:

- a. **Natural Aesthetic:** Riprap, consisting of large rocks or boulders, blends well with natural landscapes and maintains a more natural appearance compared to other options.
- b. **Erosion Control:** Effectively absorbs and dissipates the energy of waves, reducing erosion and preventing soil loss.
- c. **Habitat Creation:** Provides habitat for various aquatic and terrestrial species, promoting biodiversity.
- d. **Low Maintenance:** Generally, requires less maintenance once installed, as the rocks are less likely to be damaged by weather or environmental conditions.

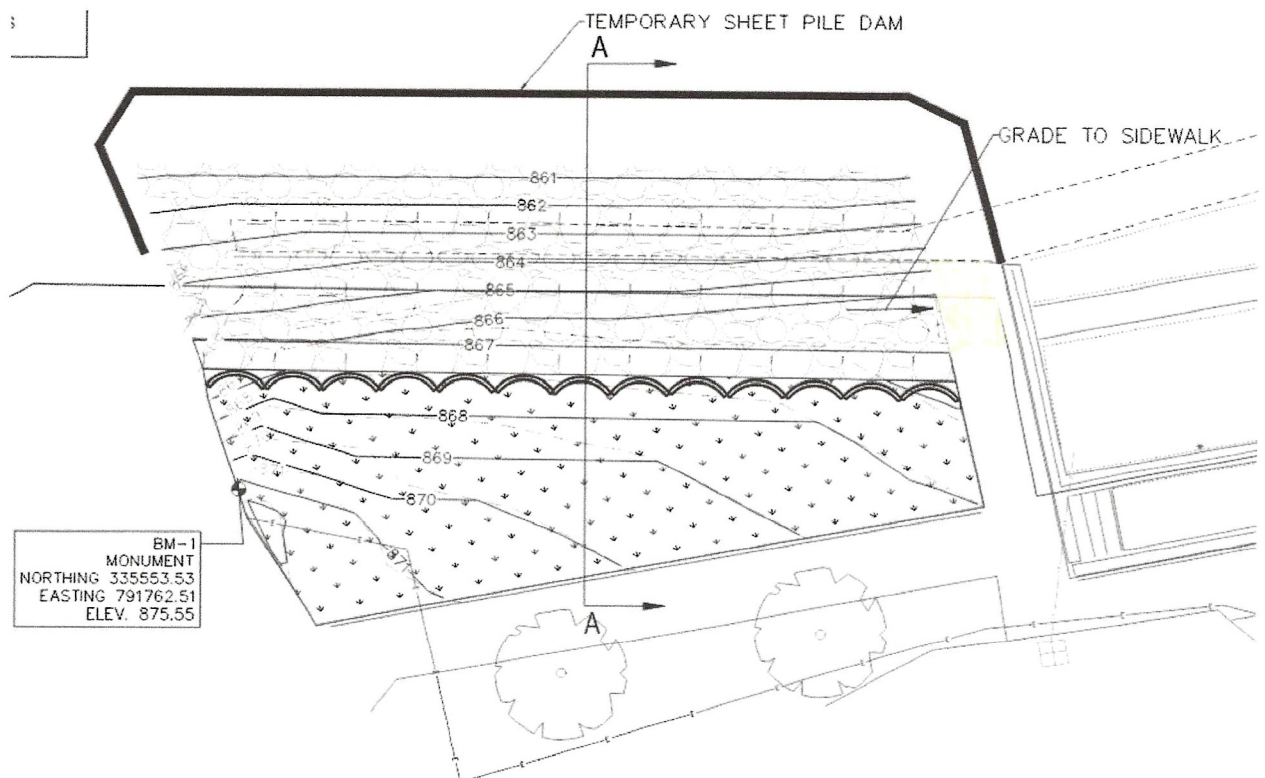
Cons to Riprap:

- a. **Sediment Accumulation:** May lead to sediment accumulation behind the rocks, which can alter local sediment patterns and affect adjacent areas.
- b. **Limited Aesthetic Flexibility:** While natural, riprap may not suit all design preferences, particularly in more urban or landscaped settings.
- c. **Installation Complexity:** Requires careful engineering and installation to ensure proper placement and effectiveness. Incorrectly installed riprap can be less effective and may shift over time.
- d. **Reduce number of slips:** The number of slips will reduce by 4-5.

Estimated Cost for riprap: \$130,000 - \$150,000 (including sediment landfill costs)



DEPTHS MAY VARY



Harbormaster Erick Nick

2. **Poured concrete seawall**

A poured concrete seawall is a solid barrier constructed from concrete that is poured into molds on-site or pre-cast off-site. This type of seawall is designed to be a durable and sturdy structure that protects the shoreline from erosion, flooding, and wave impact.



Pros to poured concrete:

- a. **Structural Strength:** Provides a strong and sturdy barrier against wave action and erosion. Concrete walls are highly effective in protecting waterfront areas from severe erosion.
- b. **Low Maintenance:** Once installed, concrete seawalls generally require minimal maintenance, as they are resistant to many environmental factors.
- c. **Customization:** Can be easily customized in terms of height, shape, and design to meet specific needs and aesthetics.
- d. **Durability:** Concrete seawalls can last for many decades if properly maintained and protected from severe environmental conditions.

Cons to poured concrete:

- a. **Aesthetic Limitations:** Concrete can be less visually appealing and may not blend well with natural surroundings. It may also require additional treatments or finishes to improve appearance.
- b. **Potential for Cracking:** Concrete can crack over time due to weathering or ground movement, which may require repairs and additional costs.
- c. **Environmental Impact:** Concrete seawalls can have some environmental impacts. They can lead to a loss of natural habitats.

Estimated cost for poured concrete:

3. **Modular concrete wall**

Modular concrete walls consist of pre-cast concrete blocks or panels that are assembled on-site to create a protective barrier. These walls can come in various shapes and sizes and are often designed to be interlocking or stacked, making them relatively quick and easy to install.



Harbormaster Erick Nicks

Pros to modular concrete:

- a. **Flexibility and Adaptability:** Modular concrete walls are pre-cast and can be easily assembled and disassembled, allowing for flexibility in design and adjustments.
- b. **Customizable:** Offers various design options, including different shapes, sizes, and finishes, allowing for aesthetic flexibility and integration with the surrounding environment.
- c. **Durability:** Provides strong erosion control and is resistant to environmental factors. Modular walls can last for many years with proper maintenance.

Cons to modular concrete:

- a. **Potential for Shifting:** Modular walls may shift or settle over time, especially if the foundation is not properly prepared or if the installation is not done correctly.
- b. **Maintenance:** May require maintenance or repairs if individual modules become damaged or if the connections between modules deteriorate.
- c. **Environmental Impact:** Like poured concrete, modular concrete walls can disrupt natural processes and habitats.

Estimated Cost for modular concrete:

The next factor in determining whether we decide to replace the slips in the lagoon is the need for dredging. Sailboats and motorboats require about 3 to 6 feet clearance depending on the boat size.



b) Design B: Modular Concrete Wall



- c) Estimated Engineering Cost: \$15,000 - \$20,000 (additional \$2,000 for bidding 2 alternatives)
- d) Estimated Construction Cost: \$200,000 – \$300,000 (including sediment landfill costs)
- e) Design A and B could be bid as alternatives in same bid. It would be less expensive to choose one option than to bid both.
- f) Boat Slips: Could be feasible with retaining wall and we would want to write specifications that seawall design should not “preclude” the addition of boat slips. Please note that we do not recommend putting boat slips back into the lagoon due to the difficulty with inspections and maintenance of the dam.

	SEAWALL SCHEDULE
9/10/2024	Piers and Harbor Meeting
10/17/2024	Post Ad
10/24/2024	Ad #1 Runs Project Docs Posted
10/31/2024	Ad #2 Runs
11/21/2024	Open Bids
12/10/2024	Piers and Harbor Meeting
12/17 or 1/7/2025	FLR Meeting
1/13/2025	Council Meeting

FLLOATING PIER
PROPOSAL

BRUCESKI
MANICORP

CITY OF LAKE GENEVA
BID PROPOSAL FORM
LAGOON PIER REPLACEMENT
PROJECT NO: 2024-06

CITY OF LAKE GENEVA
626 GENEVA STREET
LAKE GENEVA, WI 53147
262-249-3673

PROPOSAL FOR: Lagoon Pier Removal
City of Lake Geneva
Walworth County, Wisconsin

DATE, TIME & PLACE: 10:00 AM, February 23, 2024, City Hall 626 Geneva Street
Lake Geneva, WI 53147

BID:

The undersigned, having familiarized himself/herself with the local conditions affecting the cost of the work, including the Notice to Bidders, Instructions to Bidders, Plans and Specifications, and this Proposal, including any or all addenda thereto, as prepared by the City of Lake Geneva, hereby referred to as City. Contractor proposes to provide and furnish all labor, materials, necessary tools, equipment, and all utility, transportation and services necessary to remove the wooden pier and boat slip finger piers on the entirety of the Lagoon Pier in its current configuration as called for in the Contract Documents measured and paid for lump sum as specified for the lump sum amount of:

Two hundred twenty thousand dollars

(Write Bid amount in Words)

Dollars

\$ 220,000.00

BRUCESKI's/MANICORP.
Floating Pier

I hereby certify that all statements herein are made on behalf of BRUESKES INC.

(enter name of Corporation, Partnership or Person submitting bid)
and that I have examined and carefully prepared this Proposal from the specifications and that I have full authority to make such statements and submit this Proposal.

Signature: 

Date: 2-22-2024

Title: PRESIDENT

Respectively submitted,

Company Name: BRUESKES INC.

Company Address: 1106 S. CRYSTAL LAKE

MCHENRY IL 60050

Phone: 847-366-4540

NOTE: Questions may be addressed to the City of Lake Geneva Harbormaster at:

Phone Number:	262-249-4086
Address:	City of Lake Geneva 626 Geneva Street Lake Geneva, WI 53147
Email:	harbormaster@cityoflakegeneva.com

February 22, 2024

Bruceski's Marine
99 Kazlmour Dr
Unit C
Port Barrington, IL 60070
shannon@bruceskismarine.com

RE: City of Lake Geneva Lagoon Docks, 626 Geneva Street, Lake Geneva, Walworth County, WI

Mr. Ryan Bruce,

MarlCorp US, LLC, appreciates the opportunity to provide a proposal on this project. We hope to earn your current and future business by providing superior customer service and products that will stand up to the challenges a marina setting on Lake Geneva presents for years. We know that our product's qualities are second to none, and we hope that any questions concerning product comparisons between ours and another product are addressed so we can provide answers to aid in your decision. We propose the following:

Specifications for the new dock:

- **Substructure:** Substructure frames are 12" tall with (2) -18" diagonal opposing truss web members on each side of the frame in each 4' section and crossways between boxes. (2) Diagonal members between the two bottom chords in every 4' section. Frames fabricated using $1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{3}{16}"$ structure chords, $1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{3}{16}"$ trusses, and verticals $1\frac{1}{2}" \times 1\frac{1}{2}" \times \frac{3}{16}"$ diagonals with $3" \times 3" \times \frac{3}{16}"$ angle at connections points. Frame-to-frame connections utilize (8) $\frac{1}{2}" \times 1\frac{1}{2}"$ yellow zinc finish Grade 8 bolts and zinc-plated Grade A lock nuts.
- **16" Floats:** Roto-molded float (.160" nominal wall thickness) with encapsulated polystyrene. Floatation meets the U.S. Army Corps of Engineers regulation #36 CFR part 27 and the "Hunt" water absorption test. Floatation has square reinforced corners and molded mounting slots. Floats will be attached to the substructure of the dock with $\frac{3}{8}" \times 3"$ zinc-plated thread-cutting screws.
- **Decking:** 2" x 6" treated lumber running crossways, attached to 2" x 4" runners on 24" centers with galvanized deck screws. Runners are attached to the frame with #12 2 $\frac{3}{4}"$ epoxy-coated self-drilling screws.
- **Anchoring:** (24) Select Series telescoping spuds with 6" schedule 40 collar, 6" x schedule 40 x 10' casing, and 4" x schedule 40 x 21' spud pole.
- **Gangway:** None
- **Accessories:** Black vinyl rub rail at head pliers and finger ends, Double 2" x 6" & 2" x 6" treated lumber skirt board on entire dock perimeter, 10" Side-Mount Cleats (4 Per Finger, 12 PWC Ports with mounting hardware.

FRAMES, ANCHORS, COLUMNS, BRACING, RAILING, AND OTHER STEEL COMPONENTS MANUFACTURED BY MARICORP U.S. ARE HOT DIP GALVANIZED AFTER FABRICATION. GALVANIZED OR GALVALUME-COATED PURLINS, ROOF SHEETS GALVALUME COATED OR GALVALUME COATED AND PAINTED.

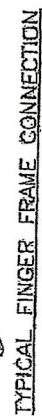
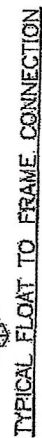
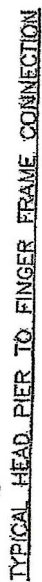
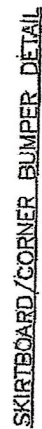
Deliver and Pre-assembled the following docks:

Lagoon Docks: A 17' x 300' open dock with 22- 8'6" x 17' single-sided slips and a 3' Head pier, all with 2' wide fingers with side tie cleats.

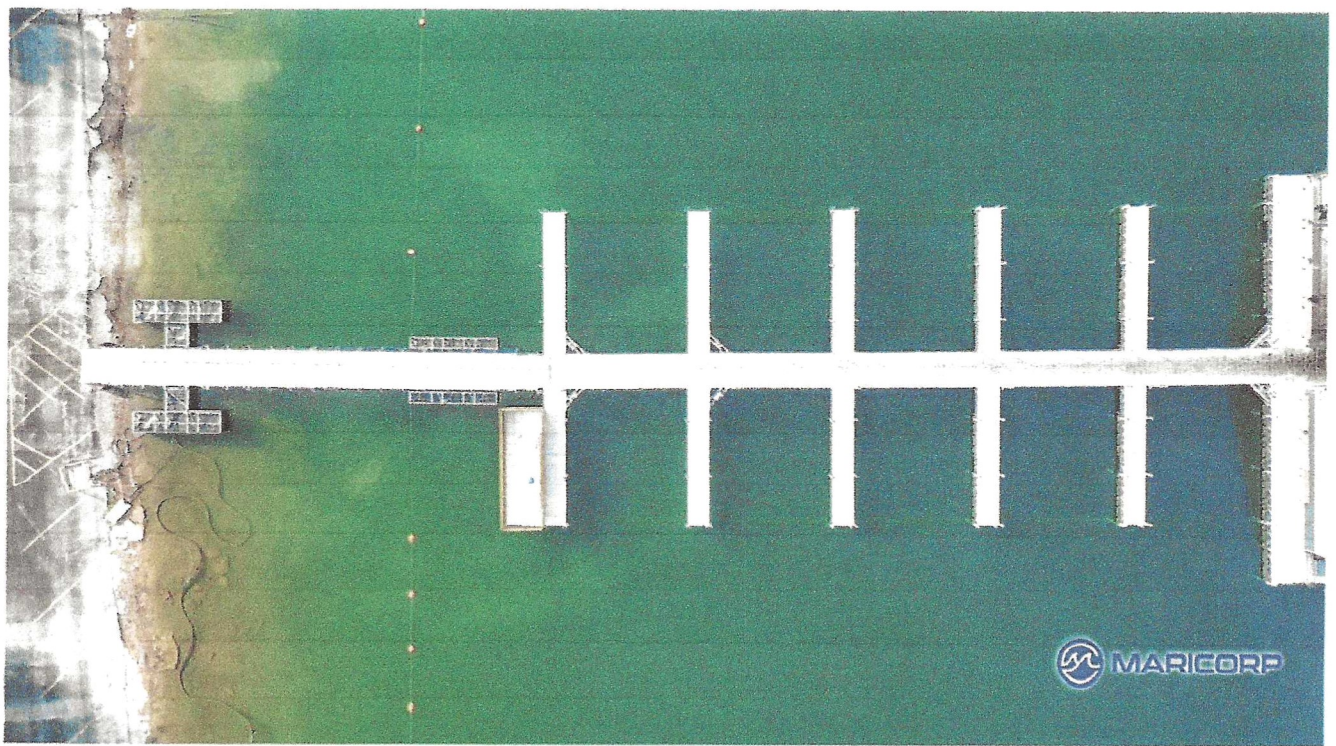
The above-described dock was installed for **\$220,000.**

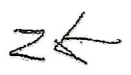
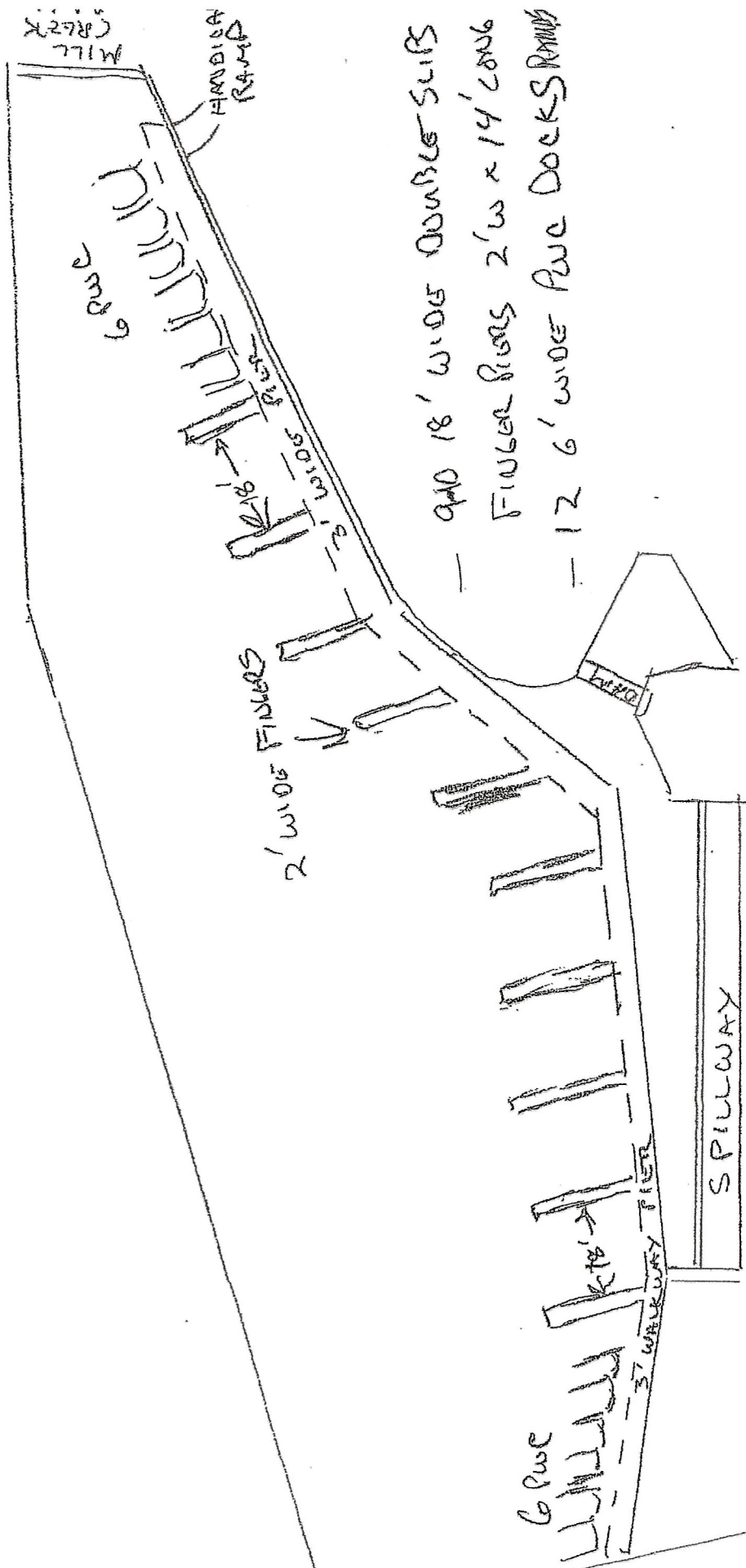
Terms: To be determined.

Ed Snyder, CMM | Regional Sales Manager | ed.snyder@mcus.com
PO Box 701 | Shell Knob, MO 65747 | 417-858-8814 | www.maricorp.com

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BRIDGE
WRIGHTLEY DR.



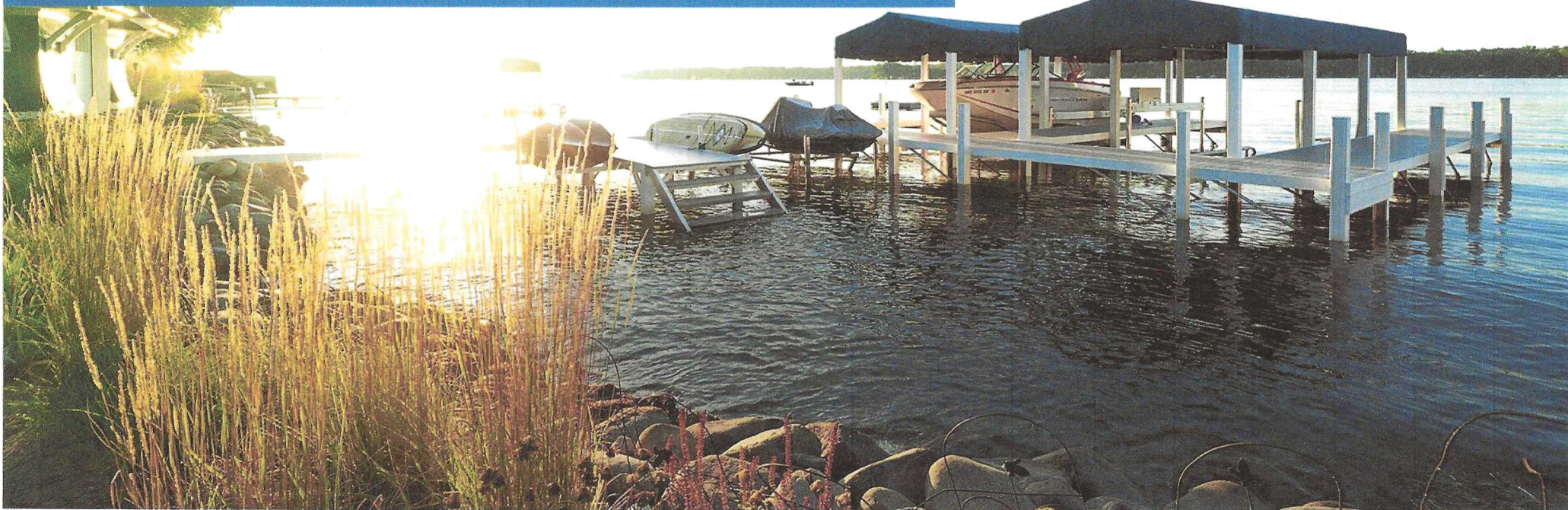






BruceSki's Marine 847.366.4540

Summerset Marine Construction



LAKE GENEVA

City of Lake Geneva – Lagoon Pier Project 2024



Pillars of our Process

- Thank you- Its our Honor to Be Here Today
 - Leadership Team
 - Our Journey
 - Why Summerset Marine?
 - Growth Over Time
 - City of Lake Geneva Lagoon Design
 - Engineering Review
 - Eco-Friendly & Dredging Compatible
 - Other Commercial Pier Projects Completed
 - Manufacturing Capabilities
 - Contact Information
-





LEADERSHIP



Larry Chapman
President / Founder



Laurie Hollern
Director of Organizational
Development & Human
Resources



Dave Copeland
Vice President Finance



Steve Miller
Vice President Operations



Michael Rather
Vice President Sales and
Business Development

THE JOURNEY

Founded in 1990

Larry Chapman had the vision to change the docking and pier solution industry

1992 Moved to Eagle

Manufacturing moved to eagle for large scale production of our engineered pier solutions.

2021-2024 Expansion

Purchases of DL Anderson in Madison expanded Summerset's coverage capabilities. New Offices in Green Lake and Door County.

1991 Pier Designs

Expanded into Seasonal Piers

2022 Whitewater

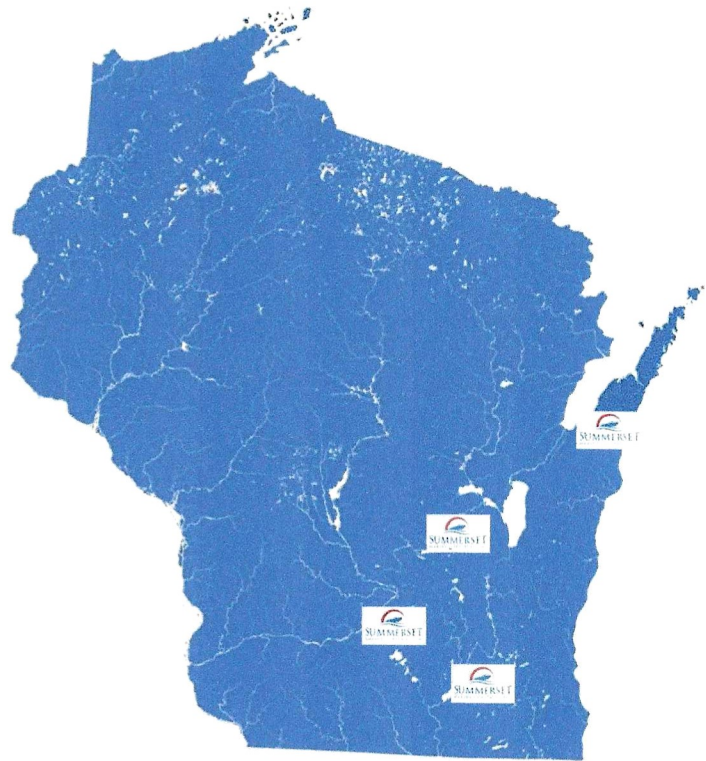
Summerset has a permanent factory direct location, a 70,000 sq. ft. facility in Whitewater with a showroom, office, factory and warehouse.

SUMMERSET ADVANTAGES

- Founder with over 30 years of industry experience
- Vertically integrated from a manufacturing perspective
- Engineering staff on board
- 7/365 Dedicated service with maintenance fleet
- Lifetime warranty on products if maintained by Summerset
- 70,000+ square feet facility in Whitewater with a showroom, factory and warehousing
- Heavily insured
- Full-service dock manufacturer with engineered solutions that are industry leading
- Solutions for all needs and budgets
- **100+ Employees**
- Financially solid company built to grow and be sustainable for generations to come
- Full financing options available
- Factory direct pricing straight to the consumer



CONTINUED GROWTH AND MARKET EXPANSION



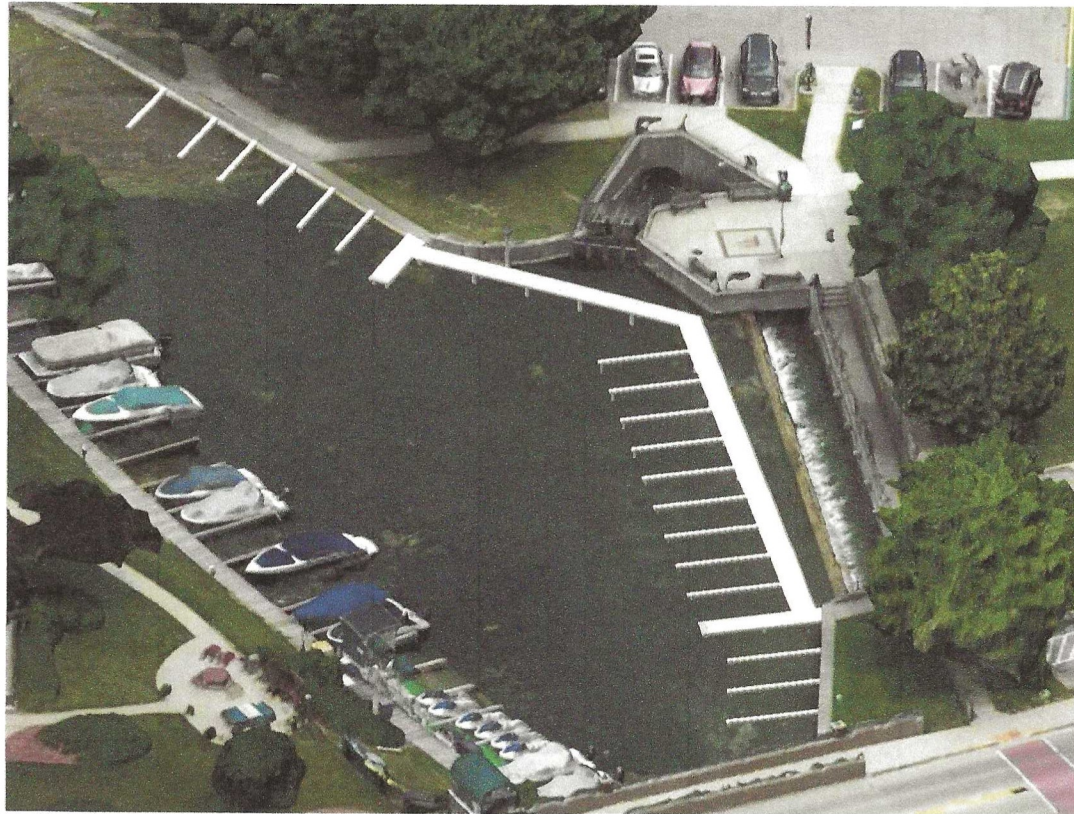
- Whitewater
 - Headquarters
 - Manufacturing
 - Sales, Service, and Installation
- Madison
 - Sales, Service and Installation
- Green Lake
 - Sales, Service, and Installation
- Door County
 - Sales, Service, and Installation

LEAGUES A HEAD OF THE REST

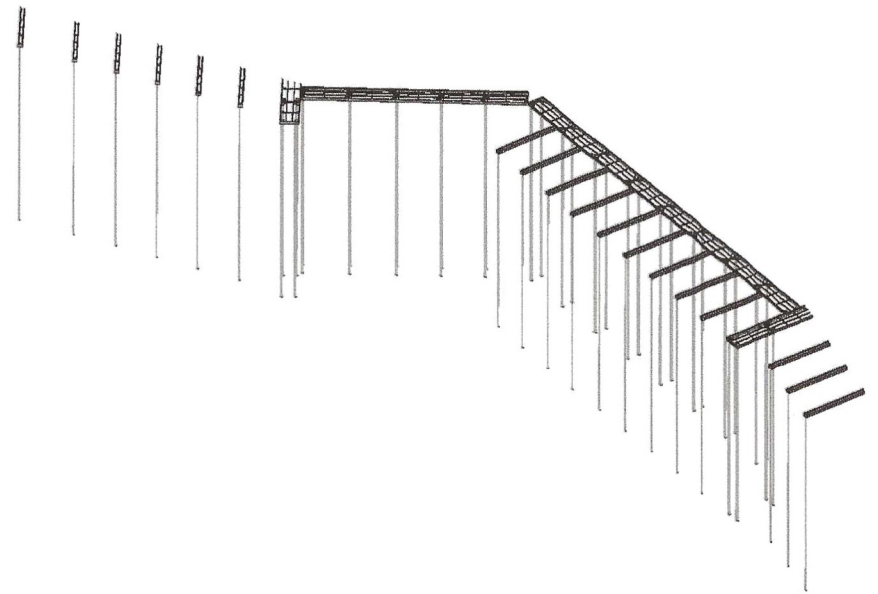
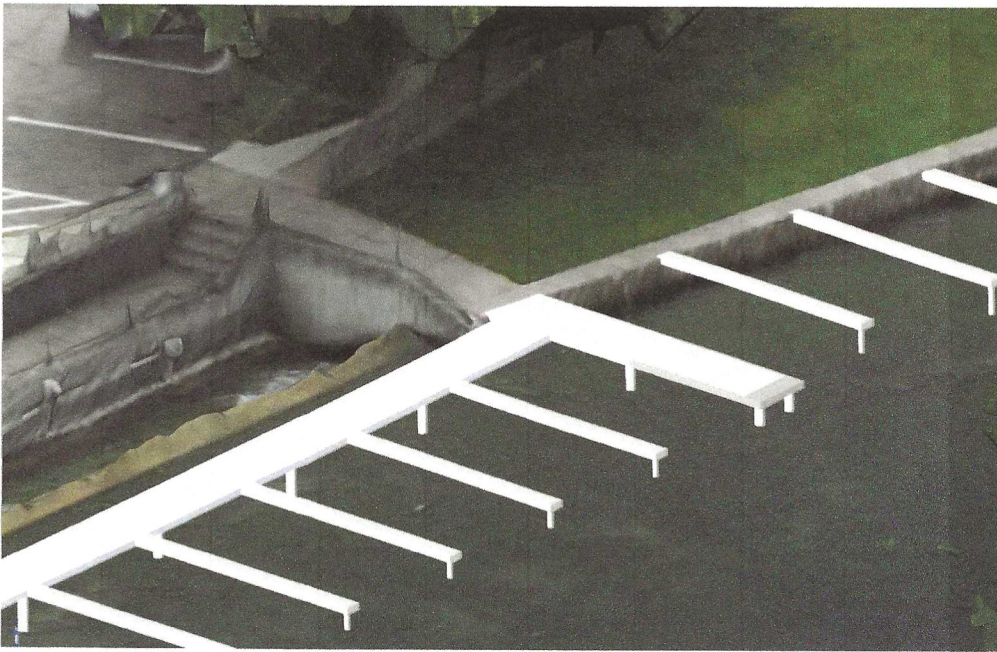
- GIS Mapping – Geographic Information System- computer system that analyzes and displays geographically referenced information
- <http://bit.ly/SMCGIS>
- Largest pier manufacturer / installer in Midwest
- Installation accuracy within 2cm of design parameters (3D AutoCAD Design)
- Engineering resources on staff on hand with marine experience
- One team: Design, Construction, Installation, and Support



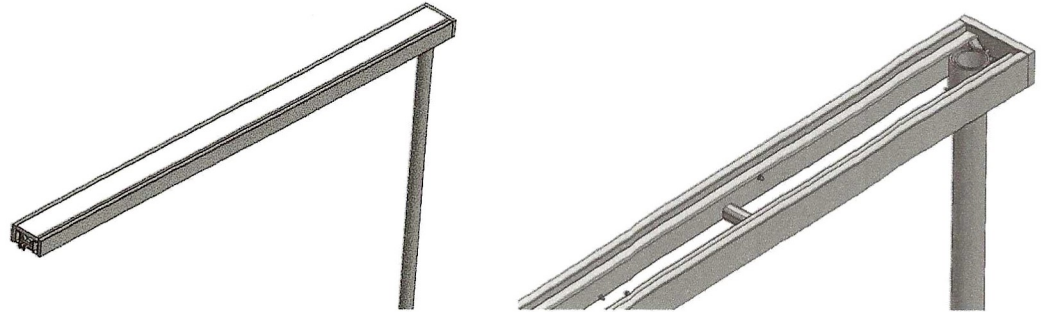
Pier Design – Review



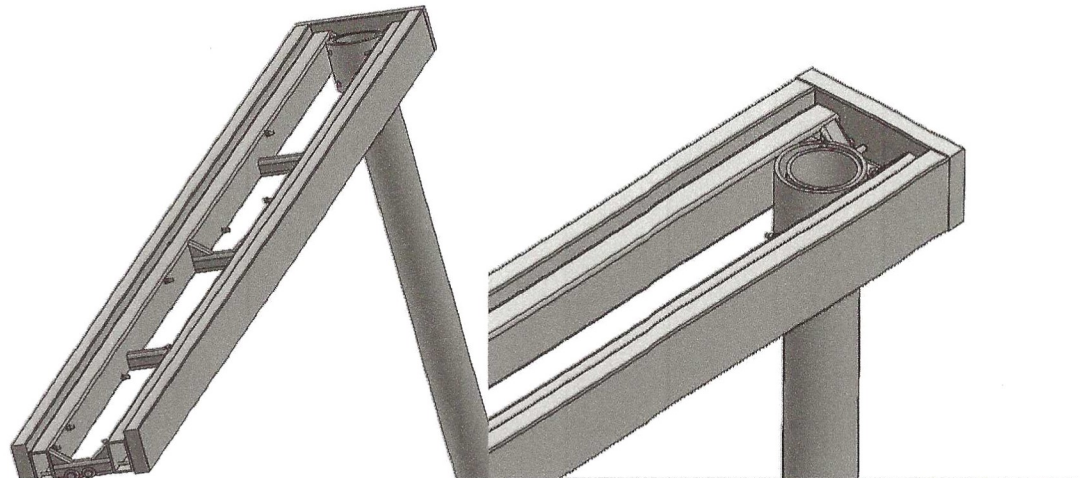
ENGINEERING REVIEW - PIER STEEL STRUCTURE



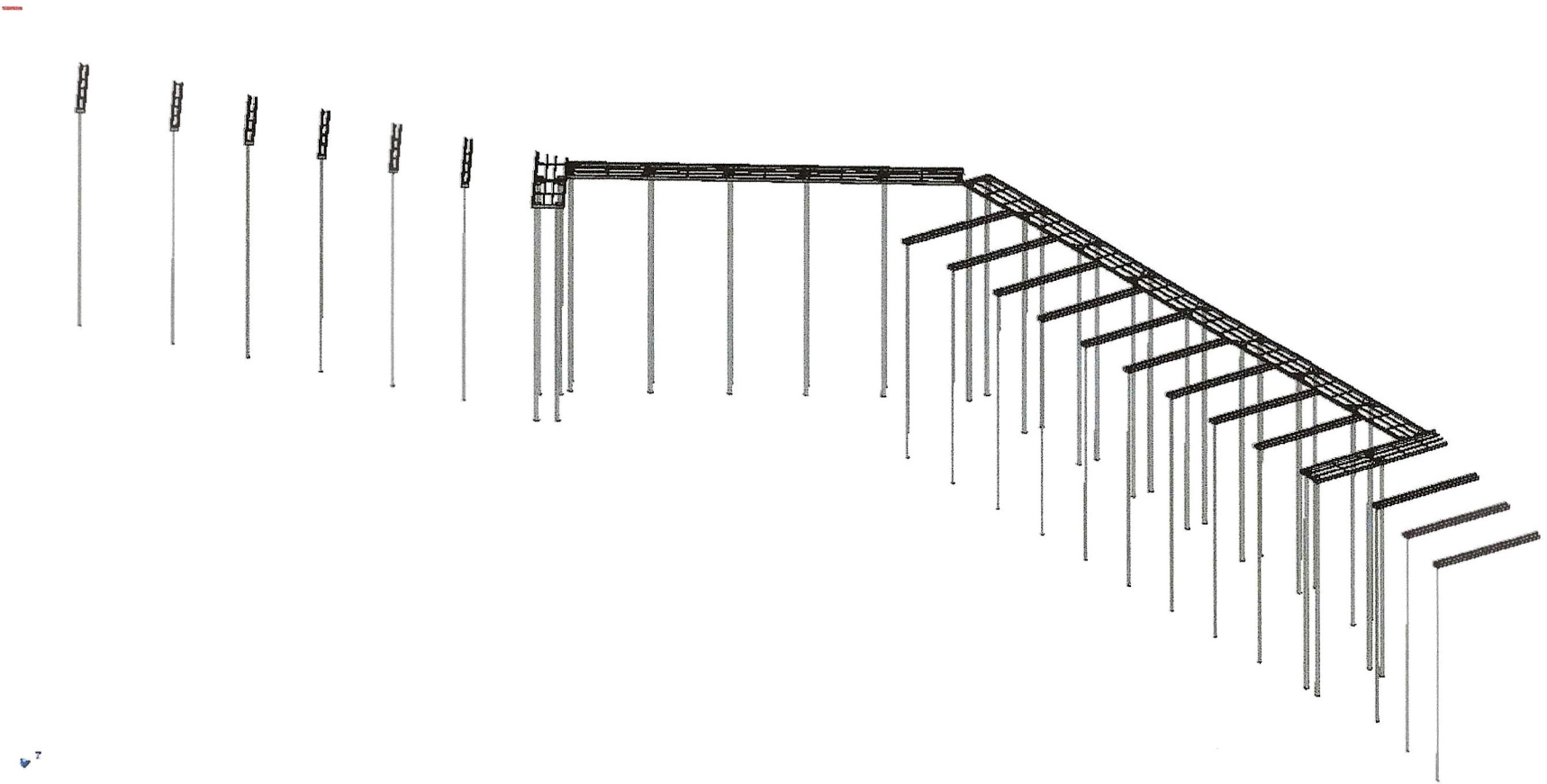
ENGINEERING REVIEW SLIP WALKWAYS STEEL STRUCTURE



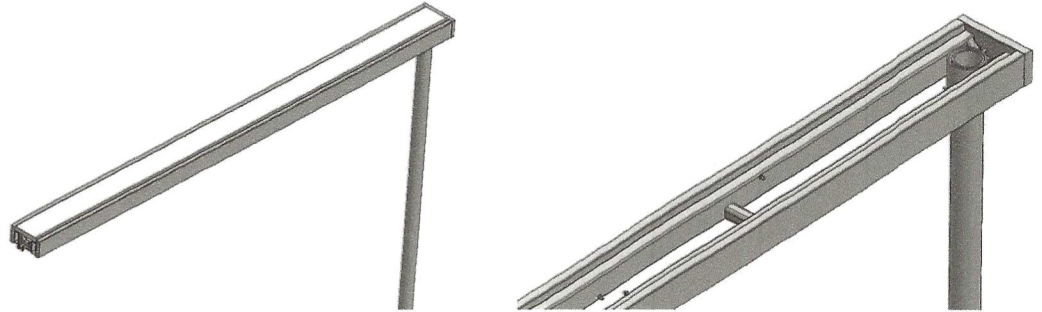
WALKWAY 16 FEET X 12 INCH WIDE TOP



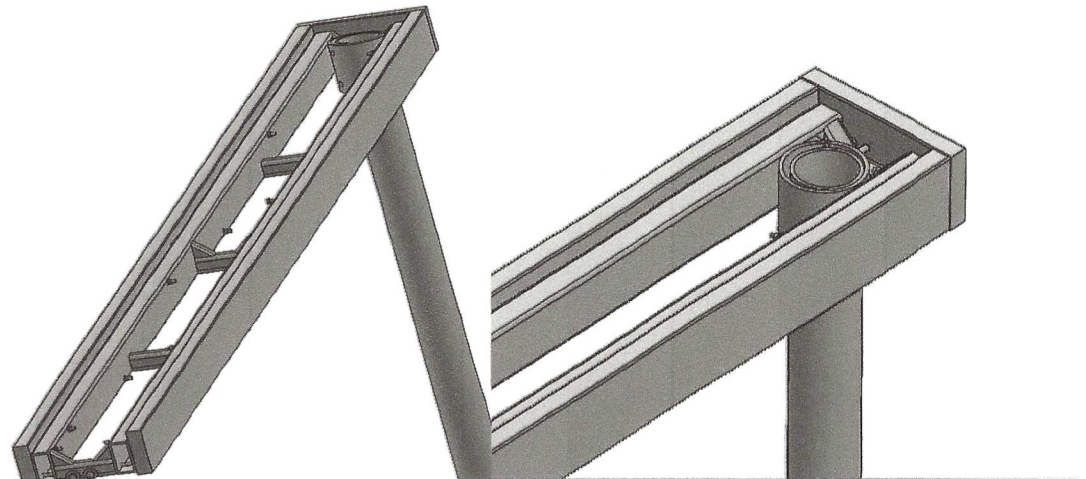
ENGINEERING REVIEW - PIER STEEL STRUCTURE



ENGINEERING REVIEW SLIP WALKWAYS STEEL STRUCTURE



WALKWAY 16 FEET X 12 INCH WIDE TOP





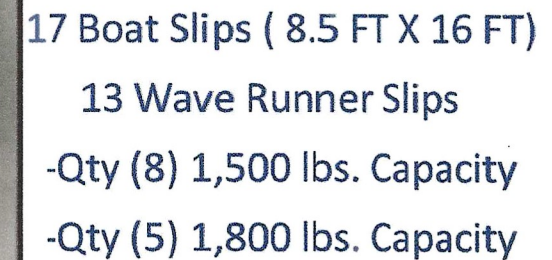
DRAWN BY: RYAN TABOR 6/21/24

GIS LAYOUT 1

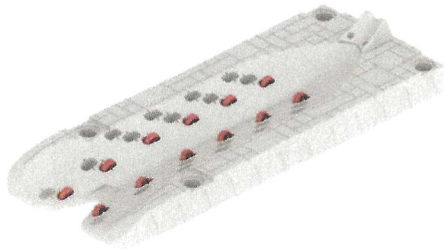
This document is not a licensed survey. The placement of the pier is estimated based on aerial imagery and is subject to a 1 degree tolerance. The riparian lines shown are estimated and do not represent actual property lines or legal boundaries. By signing this document, the customer acknowledges that they are approving the pier's location and understand that any changes made to the pier's location after installation may result in additional charges.

Signature:

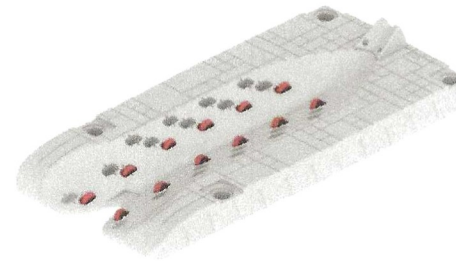
LG LAGOON

[illegible]

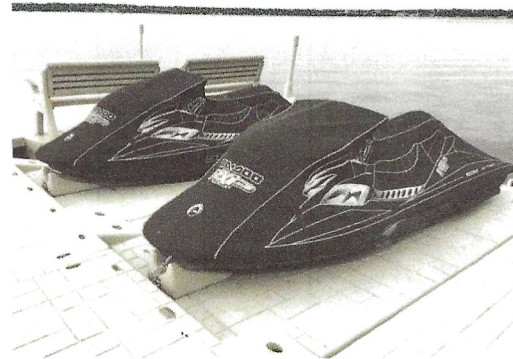
PERSONAL WATERCRAFT PORT



FLOATING PWC PORT 5' WIDE
1,500 LBS CAPACITY



FLOATING PWC PORT 6' WIDE
1,800 LBS CAPACITY



Eco Friendly

- Eco-Friendly Decking and Skirting with “RENEWDECKING”
 - **Renewdecking** is proudly manufactured and headquartered in Luxemburg, Wis.
 - The decking is crafted from a blend of recycled post-consumer and pre-consumer High-Density Polyethylene (HDPE), combined with virgin materials and non-organic strengthening additives.
 - Free from organic compounds, the production of **Renewdecking** is environmentally responsible and does not contribute to deforestation.
 - With a 25-yr warranty, this durable decking results in progressively declining post-use waste over time.
 - Composite decking guaranteed to retain 97% of color match for 50 years.
 - End-of-life decking recycled by manufacturer
 - www.renewplastics.com





Dredging Compatible

- Pier support pipes/pylons are driven into the ground until they meet resistance 30 feet or greater depth.
- Having a large portion of the anchor/support piping in the ground is not impacted by dredging in the area unlike standard wood pier posts.
- Heavy Schedule 40 Pipe has greater resistance to inadvertent impacts from mechanical dredging.

Commercial Installations

Lake Lawn Lodge, Delavan WI



Commercial Installations

Lake Lawn Lodge, Delavan WI



10

Commercial Installations

Brewery, Rockford, Illinois



7/9/2024

Commercial Installations

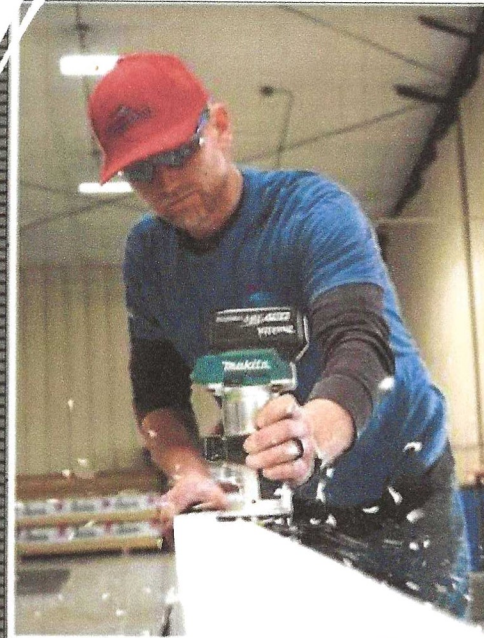
The Village Supper Club, Delavan, Wisconsin



MANUFACTURING CAPABILITIES

FROM BLUEPRINT TO BREAKWATER

- Engineering precision, masterful welding, custom metal fabrication, skilled carpentry, robust barge construction, and powerful piling pounding are pillars of our proven process.
- Innovative design meets marine engineering
- Precision welding for enduring strength
- Custom metalwork, quality assured
- Artisan carpentry for marine structures
- State of the Art CNC systems coupled with 3D AutoCAD design
- Secure piling alignment guarantees lasting support





Pewaukee Yacht Club, Pewaukee Wisconsin

Thank you

David Wall

dwall@summersetmarine.com

www.summersetmarine.com

Cell: 262-755-8199 Texts Welcome



Summerset - Whitewater
W3128 Highway 59
Whitewater WI 53190
United States

Quote
#QUO3525
06/24/2024

Bill To

Linda Frame
City of Lake Geneva
626 Geneva St
LAKE GENEVA WI 53147
United States

Email /
Phone: lframe@cityoflakegeneva.gov

(262) 203-2325

TOTAL

\$242,698.36

Expires: 12/31/2024

Expires	Exp. Close	Sales Rep	Email	Phone
12/31/2024	06/06/2024	Dave Wall	dwall@summersetmarine.com	

Lake	Memo
Geneva Lake	Replacement of Lagoon Piers

Quantity	Item	Options	Rate	Amount
	Note Main Walkway - Next to Spill Way			
7	AS5-4X144 ALL SEASONS 5" PIPE 4"X144"		\$6,550.00	\$45,850.00
1	AS5-4X120 ALL SEASONS 5" PIPE 4'X120"		\$6,300.00	\$6,300.00
	Note South 4' Wide Pier			
2	AS5-4X120 ALL SEASONS 5" PIPE 4'X120"		\$6,300.00	\$12,600.00
	Note North East Walk Way 50'			
5	AS5-4X120 ALL SEASONS 5" PIPE 4'X120"		\$6,300.00	\$31,500.00
1	General Service (Non-Taxable) Custom Corner Pieces with Engineering		\$5,000.00	\$5,000.00
	Note North 4' Wide Pier			
1	AS5-4X120 ALL SEASONS 5" PIPE 4'X120"		\$6,300.00	\$6,300.00
1	AS5-4X120 ALL SEASONS 5" PIPE 4'X72" (6' Foot)		\$6,300.00	\$6,000.00
	Note SLIP CAT WALKS (12" x 16')			
18	General Service (Non-Taxable) CUSTOM ALL SESONS 5" PIPE 12" X 16' CAT WALK QTY (18)		\$2,500.00	\$45,000.00
	Note PERSONAL WATER CRAFT (PWC)			



QUO3525



Summerset - Whitewater
W3128 Highway 59
Whitewater WI 53190
United States

Quote
#QUO3525
06/24/2024

Quantity	Item	Options	Rate	Amount
8	811-181 SLX5-PWC Wave Port 5' wide Blue Wheels (1,500 LB Capacity- Wave Runner PLC Port)		\$2,025.00	\$16,200.00
5	811-191 SLX6 - 72" W x 152" L - Color: GRAY (1,800 lb Capacity Wave Runner PWC Port)		\$2,401.50	\$12,007.50
8	811-194 SLX Port to Port Kit (Qty 2) - Color: GRAY		\$294.00	\$2,352.00
6	811-196 SLX 2" Post Insert (Qty 2) - Color: GRAY		\$85.00	\$510.00
74	860-220 8" Mooring Cleat		\$36.25	\$2,682.50
	5" Piling Disclaimer Pricing includes Pipe Pilings up to 30'. Lengths exceeding will be billed an additional \$30/ft			
1	ADI - All Seasons Pier Assembly, Delivery, & Installation (ADI): The ADI payment is due at the completion of installation. If payment is not received within 30 days of installation, a 1.5% charge of the outstanding balance is added to your account each month.		\$48,540.00	\$48,540.00
			Subtotal	\$240,842.00
			Tax Total (%)	\$1,856.36
			Total	\$242,698.36

Final Payment Terms:

- * Final payment is due upon completion of your project.
- * If payment is not received within 15 days of your invoice date, a payment reminder will be sent out and interest will be accrued as of the invoice date.
- * At 30 days, a statement will be sent to you with stated accrued interest charges
- * At the 60-day mark, another statement will be sent out stipulating the outstanding balance with total accrued interest charges, as well as Summerset Marine's intent to place a lien on your property for failure to pay all outstanding charges.
- * If more than 90 days has passed, and you have not paid your outstanding balance, Summerset Marine Construction will initiate the process to place a lien on your property. Interest will continue to accrue until your outstanding balance is paid

ATTENTION PLEASE READ:

This customized quote for you is guaranteed for 30 days from the date stated on the document. The stated pricing reflects a payment by cash or check. Credit Card payments incur a 3% surcharge. Any additional costs for necessary engineering modifications, or additional customer requests, beyond the original quote will be added to the quote and presented to the customer for approval before manufacturing.



QUO3525



Summerset - Whitewater
W3128 Highway 59
Whitewater WI 53190
United States

Quote
#QUO3525
06/24/2024

Notice of lien rights:

Pursuant to Wisconsin construction lien law, Summerset Marine and Lifetime Piers hereby notifies the owner that we may have lien rights on said owner's land, building, and improvements. Owners may also receive a notice of lien rights letter from us within 90 days of work being completed if all required payments are not made by that time. This information, pursuant with Wisconsin statute 799, is intended for the purpose that all lien claimants are paid in full for work performed. The owner is responsible for forwarding a copy of the notices to their lender, if any. Please sign, date, and return to indicate your approval of this quote and its terms.

Signature_____ Date_____



QUO3525

Estimated cost for dredging the lagoon:

Lagoon Dredging Estimate		
Description	Cost Calculation	Cost
Mobilization		\$80,000
Mechanical Dredging (2,000 yd ³)	\$22/CY × 2,000 yd ³	\$44,000
Hauling (2,000 yd ³)	\$5/CY × 2,000 yd ³	\$10,000
Land Fill Disposal	\$55/ton × 2,700 tons*	\$148,500
Total Estimate	\$80,000 + \$44,000 + \$10,000 + \$148,500 =	\$282,000

*Using density of sand

In January of 2023 this very close to the budget number ILM Environments recommend the previous Harbormaster to budget. The city may also be able to reduce the cost significantly by about \$100,000 if we do the removal and disposal.

Previously we had the dredging companies haul and dispose of materials.

Historical cost: 1999: \$54,697.00 for 908 yd³ of material

If extrapolated for inflation the cost would now be \$103,351.72

Multiple by 2 to get roughly the 2,000 yd³ needed now = \$206,703.44

2013: \$45,853.80 for 1,800 yd³ of material

Piers: The lagoon had 29 total slips: 28 boats & 1 personal watercraft.

Lease count by category	Lease rate per slip	Lease revenue
Resident = 24	\$920.00	\$22,080.00
Non-Resident PO = 4	\$1,604.00	\$6,416.00
Personal Watercraft= 1	\$1,296.00	\$1,296.00
Total:		\$29,792.00

Both the presentations that we had for permanent and floating piers showed that the number of slips would be reduced.

Permanent: 24-27 slips & **

Cost estimate: \$189,000 - \$300,000

Floating: 22 Slips & 12 Personal Watercraft**

Cost estimate: \$179,000 - \$220,000

**Both reduce the number of slips from the previously held number of slips.

LAGOON Riprap Floating

Estimated Upfront cost of installing piers		
	Minimum range	Maximum range
Seawall: Riprap	\$130,000	\$150,000
Dredging	\$150,000	\$290,000
Pier: Floating	\$179,000	\$220,000
TOTAL	\$459,000	\$660,000

Description	Internal or External Resources	Estimated Cost	Frequency	Estimated Annualized Costs
Debris Removal from slips 1-8	External contractor	\$ 15,000.00	2 years	\$ 7,500.00
Dredging	External contractor	\$ 300,000.00	10 Years	\$ 30,000.00
Seaweed Removal	Internal DPW	\$ 400.00	Weekly in season - 10 weeks	\$ 4,000.00
Pier repairs	External contractor	\$ 1,500.00	Annually	\$ 1,500.00
Total Annualized Estimated Maintenance Cost				\$ 43,000.00

Cost/Slip based on 22 slips	\$ 1,954.55
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Pier Install	Estimate based on contingency and permits	\$ 210,000.00	25	\$ 8,400.00
Amortized per slip (22)				\$ 381.82

Annual rate per slip to break even with a riprap wall and floating pier system to break even:	\$ 2,336.36
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LAGOON Riprap Permanent

Estimated Upfront cost of installing piers		
	Minimum range	Maximum range
Seawall: Riprap	\$130,000	\$150,000
Dredging	\$150,000	\$290,000
Pier: Permanent	\$189,000	\$300,000
TOTAL	\$469,000	\$740,000

Description	Internal or External Resources	Estimated Cost	Frequency	Estimated Annualized Costs
Debris Removal from slips 1-8	External contractor	\$ 15,000.00	2 years	\$ 7,500.00
Dredging	External contractor	\$ 300,000.00	10 Years	\$ 30,000.00
Seaweed Removal	Internal DPW	\$ 400.00	Weekly in season - 10 weeks	\$ 4,000.00
Pier repairs	External contractor	\$ 1,500.00	Annually	\$ 1,500.00
Total Annualized Estimated Maintenance Cost				\$ 43,000.00

Cost/Slip based on 22 slips (reduced from 24 due to possible interference from riprap rocks) \$ 1,954.55

Pier Install	Estimate based on contingency and permits	\$ 210,000.00	35	\$ 6,000.00
Amortized per slip (22)				\$ 272.73

Annual rate per slip with riprap wall and permanent pier system to break even: \$ 2,227.27

LAGOON Modular or Poured Concrete Floating

Estimated Upfront cost of installing piers		
	Minimum range	Maximum range
Seawall: Modular or Poured Concrete	\$220,000	\$320,000
Dredging	\$150,000	\$290,000
Pier: Floating	\$179,000	\$220,000
TOTAL	\$549,000	\$830,000

Description	Internal or External Resources	Estimated Cost	Frequency	Estimated Annualized Costs
Debris Removal from slips 1-8	External contractor	\$ 15,000.00	2 years	\$ 7,500.00
Dredging	External contractor	\$ 300,000.00	10 Years	\$ 30,000.00
Seaweed Removal	Internal DPW	\$ 400.00	Weekly in season - 10 weeks	\$ 4,000.00
Pier repairs	External contractor	\$ 1,500.00	Annually	\$ 1,500.00
Total Annualized Estimated Maintenance Cost				\$ 43,000.00

Cost/Slip based on 22 slips	\$ 1,954.55
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Pier Install Amortized per slip (22)	Estimate based on contingency and permits	\$ 210,000.00	25 \$	8,400.00
			\$	381.82

Annual rate per slip with a modular or poured concrete wall and a floating pier system o break even:	\$ 2,336.36
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LAGOON Modular or Poured Concrete Permanent

Estimated Upfront cost of installing piers		
	Minimum range	Maximum range
Seawall: Modular or poured concrete	\$220,000	\$320,000
Dredging	\$150,000	\$290,000
Pier: Permanent	\$189,000	\$300,000
TOTAL	\$559,000	\$910,000

Description	Internal or External Resources	Estimated Cost	Frequency	Estimated Annualized Costs
Debris Removal from slips 1-8	External contractor	\$ 15,000.00	2 years	\$ 7,500.00
Dredging	External contractor	\$ 300,000.00	10 Years	\$ 30,000.00
Seaweed Removal	Internal DPW	\$ 400.00	Weekly in season - 10 weeks	\$ 4,000.00
Pier repairs	External contractor	\$ 1,500.00	Annually	\$ 1,500.00
Total Annualized Estimated Maintenance Cost				\$ 43,000.00

Cost/Slip based on 24 slips	\$ 1,791.67
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Pier Install	Estimate based on contingency and permits	\$ 210,000.00	35	\$ 6,000.00
Amortized per slip (24)				\$ 250.00

Annual rate per slip with a modular or poured concrete wall and a permanent pier system to break even:	\$ 2,041.67
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