



SUPERYACHT MARINA CONSTRUCTION CHECKLIST

Your guide to building a superior superyacht
destination

ABSTRACT

The 2020 Superyacht Marina Construction Checklist highlights important items to consider in the construction of your superyacht facility. Use this guide to build-in the amenities that are important to your superyacht guests.

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SUPERYACHT MARINA CONSTRUCTION CHECKLIST

Superyacht facility design made simple.

The 2020 **Superyacht Marina Construction Checklist** highlights important items to consider in the construction of your superyacht facility.

Use this guide to build-in the amenities that are important to your superyacht guests.

CORE DESIGN ELEMENTS

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Superyacht facility design is not only about the look and feel. It is about function and user experience.

Every marina project is unique. Most decisions in the planning process depend on:

- Site constraints
- Owner's vision
- Market conditions

Brick and mortar portions are often similar across projects but amenities packages vary widely.

The checklist that follows is a guide to use in the planning stages of your project. It is neither an all-inclusive nor an exhaustive list of possibilities. It is a starting place. A list of important elements to keep mind when building your superyacht facility.

SUPERYACHT MARINA CONSTRUCTION CHECKLIST

For marina developers and owners

1. SITE CONSIDERATIONS:

Define your site's conditions and constraints.

- What is the primary body of water?
- What type of water – salt, brackish, fresh?
- What is your wave height?
- What is the fetch?
The distance from your basin to the nearest land mass. Fetch affects wind & wave climate.
- What are the wind conditions?
- What is your tidal range?
- What is the average water depth (entrance channel and outer/inner basin depths)?
Deep-water access is important for deep-draft superyachts
- Is the site subject to severe storm conditions?
Consider exposure to storm surge.

2. VESSEL + MOORAGE:

Identify the kind and size of boats you are going to welcome.

- Define vessel type, size and quantity to target.
- Will you provide moorage for the yachts as well as their tenders?
Will tenders reside in the same berth or at a separate tender dock? Captains often prefer to tie-up tenders in the marina.
- Do you plan to host special events?
If so, you will need an alternative moorage layout to accommodate additional yachts during the event.
- Will you provide short or long-term moorage, or a combination of the two?
Dock configuration, access considerations & amenities (water & landside) will vary for each.

3. FACILITY (DOCK) LAYOUT & FEATURES:

- Generous fairways leading to superyacht berths.
- Berth configuration – full finger, side-tie or Med-Moor?
Consider the option to load from the back or side and create separate entrances for owners and crew. A dock alongside allows the crew to detail, polish & clean the hull.
- Will you offer overwater event space?
When hosting private parties, races, or other events, extra wide walkways, platforms and gangways are necessary.

Floating platforms, movable or built-in, are a valuable feature.

- What is your ideal slip mix?
Ensure you have the correct berth sizes and numbers that best meet demand.
- If you are a mixed-use facility – think zones.
Superyachts want exclusive real estate away from public docks and charter vessels. They also need delivery access.

Other factors that influence zone layout include:

- Access and water depths
- Fueling and power requirements
- Domestic waste handling
- Prevailing wind direction

4. DOCK CONSTRUCTION:

- Define your load requirements
This includes vessel sizes/types, people, equipment (fixed & temporary), wind and waves
- Concrete floating docks
Heavy-duty concrete docks with finger piers are best for superyachts and extreme weather conditions. For vessels over 70 ft., aluminum or timber frame dock systems are not recommended.
- High load capacity docks
Vessel size and use will determine required load capacity. Big boats have high load requirements.

Will there be golf carts, small vehicles, maintenance equipment, forklifts and /or scissor lifts on the docks? If so, and if you are opting for floating docks, you will need a fully encased concrete dock.

- Consider slip length – current and future
Captains complain exiting slips are not big enough for current boats and vessel sizes are increasing.
- Extra-wide walkways and fingers
Generous walkways and oversized gangway landings for golf carts are necessary. Luggage and provision issues are common in the big boat world and golf carts are critical.
- Appropriate freeboards
Recommended freeboard for superyacht docks is 30 – 36 inches. The high freeboard is essential for proper fender placement and access.

Tenders and other small vessels require 18 – 24 inches of freeboard.
- Internal piling
There should be no external pile in the berthing area.

5. ELECTRICAL:

Big boats require big power.

- Ensure there is sufficient shoreside power.
How much and what kind of voltage is available at the project site and where is it located on the property?

Marinas with superyachts, special events and a high proportion of transients will have a high demand factor. Demand factor for most superyacht facilities should be at 70% of the capacity. General code compliance allows for as little as 30% which means on a busy holiday/event, brown outs or black outs will occur.
- Review your receptacle layout. Confirm adequate service for the vessels.
480V 3-Phase with combinations of single-phase power and the ability to convert from 480V to lower services are essential.

A single pedestal should include a wide mix of receptacles. 100A and up, with 400A the max for a single receptacle. Service for a single unit can range from 600V to 75KVA.

Do not forget ground fault protection.
- Consider placement of substations and pedestals.
Options include at the main walkway, mid-finger pier or at the end of the finger pier. You can also have multiple pedestals for a single berth.

- Have you left room for future upgrades?
Consider building in additional utility raceways to handle future power requirements.

6. PLUMBING:

- Potable water
Provide an estimated usage for shoreside infrastructure design.

Include brass hose bibs with an internal backflow device at each berth. Even if you do not plan to charge a consumption-based fee for water, the presence of a water meter will promote responsible usage.

- Ionized water
Route ionized water into your superyacht power pedestal, directly into the dock or it can be standalone.

7. BILGE /SEWER

- In-slip sewer, bilge and oil pumpouts
In-slip sewer is the norm for berths over 80 feet and quickly becoming the norm for smaller berths. Bilge and oil pumpouts are gaining popularity as well.

Look for grants from the Clean Vessel Act for pumpouts in U.S. facilities. There may be grants available for properties outside the U.S. as well.

8. FIRE

- Fire alarms and hose/extinguisher cabinets
- Concrete docks; your best first line of defense
Concrete docks provide firefighters with a safe, stable platform to fight the fire.

Fully encased concrete modules act as a fire curtain and help stop the fire from spreading. Framed systems do not offer this benefit.
- Fire suppression system
Marinas in populated areas typically have a dry standpipe fire system on the docks.
- In a remote location? Consider instant response units.

Portable fire pumps with foam have proven to be an extremely effective line of defense especially in locations with minimal or no shoreside water service of the size needed for a proper system.

9. FUEL

- High speed, high capacity fuel pumps.
High speed, high capacity fueling is necessary if you are going to offer fuel services for superyachts.
- Do you want to offer In-slip fueling?
In-slip fueling is generally an option for boats up to 145 feet. For larger yachts, in-slip fueling capabilities fall short of their high speed, high volume needs.

10. COMMUNICATIONS

- Wi-Fi coverage for all berths
System should be capable of handling multiple users from each vessel. You also need to take into account the “shadow effect” of the neighboring vessels.

Wi-Fi coverage should be thorough and reliable at all berths.
- Cable
Internet providers such as Netflix, YouTube and Hulu are quickly replacing cable. If you offer reliable, high-speed internet service, you do not need to offer cable as well.

11. LIGHTING

Lighting in a marina has both a functional and an aesthetic purpose.

- Functional lighting
Worldwide, lighting requirements call for “adequate” illumination of walkways and piers while avoiding interference with navigation. Lights installed in power pedestals and mini power centers provide enough light to meet code requirements.
- Aesthetic lighting
Overhead lighting, security lights and foot lighting are primarily functional by nature. They can add to the safety and security of a marina facility.

Underwater lighting, rope lights, colored lights and flush mounted deck lighting can add sophistication and a welcoming ambience.

12. SECURITY & PRIVACY

- Security gates and fences

Superyacht facilities in safe neighborhoods are removing fences and security guards and creating a place where the community can enjoy the atmosphere and excitement created by the large, beautiful yachts.

Glass, non-intrusive gates provide secured access while creating a welcoming, inviting space.

13. ACCESS

Consider landside access as well as access from the water.

- Identify the route from parking lot to vessel

Take provisioning and movement of guests from parking lot to vessel into account.

- Wide gates and gangways

If you accommodate golf carts and equipment, your gates and gangways should allow for them too.

- Deep, easy to navigate entrance channels

14. DOCKSIDE AMENITIES

- Overwater event spaces

- Dockside restroom, shower and laundry locations within the marina

15. LANDSIDE AMENITIES

- Separate facilities for crew and owners

- Crew lounge, restaurant, exercise facility and pool