

County of Orange
Dana Point Marinas
Workshop No. 1
“Marina Planning”

Meeting No. 2
October 24, 2006



URS | CASH &
ASSOCIATES

LEAD CONSULTANT - URS | CASH

- **Randy H. Mason, PE**
 - 1ST URS-CASH Marina Project, 1972
 - Over 250 Marina Projects
 - Primarily West Coast Projects
 - Seattle, Washington to Baja California
- **Current Marina Projects (13 Current Marina Projects)**
 - City of Coronado, Glorietta Bay
 - Newport Beach, CA – 5 Projects
 - Huntington Beach, CA
 - Long Beach, CA – Alamitos Bay
 - Marina del Rey, CA – 3 Projects
 - Channel Islands, Oxnard, CA
 - Baja, CA



LEAD CONSULTANT - URS | CASH

- Master Planning
- Civil
- Structural
- Architectural
- Electrical & Plumbing
- Permit Processing Assistance



URS | CASH SUBCONSULTANT TEAM

LSA Associates, Inc.

Environmental Consulting

Leighton & Associates

Geotechnical

Bill Carr Surveys

Topographic Survey

Gahagan & Bryant
Associates, Inc.

Hydrographic Survey

Blaylock Engineering
Group

Underwater Slope
Protection Inspection



GOALS

Dana Point Marinas - Workshops

- Education: Two-Way
 - Design Concepts
 - Boater Experience
- Boater Feedback



ULTIMATE GOALS

Dana Point Marinas

- Boater Satisfaction
- County Satisfaction
- State & Federal Satisfaction
- Quality, Long-Lasting, Cost Effective Dock System & Marina



CONCEPT DEVELOPMENT PROCESS

Dana Point Marinas

- Questionnaires
- Five (5) Workshops
 - 1ST: Marina 101 – Marina Design
Criteria/Questionnaire (Oct 24)
 - 2ND: Summarize Questionnaires/Mix Design
Bracketing (Nov 28)
 - 3RD: Phase 1 Layout Alternatives/Cost & Revenue
(Dec 19)
 - 4TH: Phase 2 Layout
Development/Amenities/Phasing (Jan 9)



DESIGN STANDARDS

Dana Point Marinas

- State of California “DBAW” 2005 Guidelines
 - Fairways & Channels
 - Slip Widths
 - Finger Sizes
 - Water Depths
 - Guide Pile Requirements
 - Loading
 - Utility Requirements
- ADA Act of 1990/Supplemental Conditions



WHY REPLACE DANA POINT MARINAS?

- “Huntington” Dock System (Built Btw 1965-1978)
- Prone to Reinforcement Corrosion & Failure
- Historic Serviceable Lifespan: Up to 30 Years (38yr Max)
- Catastrophic Failures
 - Bayside & Bayshore Marinas, Newport Beach
 - Weatherly, Trinidad Island & Tennis Estates Marinas, HB
 - Marina Pacifica, Long Beach
 - Peninsula Yacht Anchorage, Channel Islands
- Dana Point Marinas
 - East – 35 Years Old
 - West – 30 Years Old
- Major Issue: Safety & Personal Property Loss



Trinidad Marina Huntington Beach

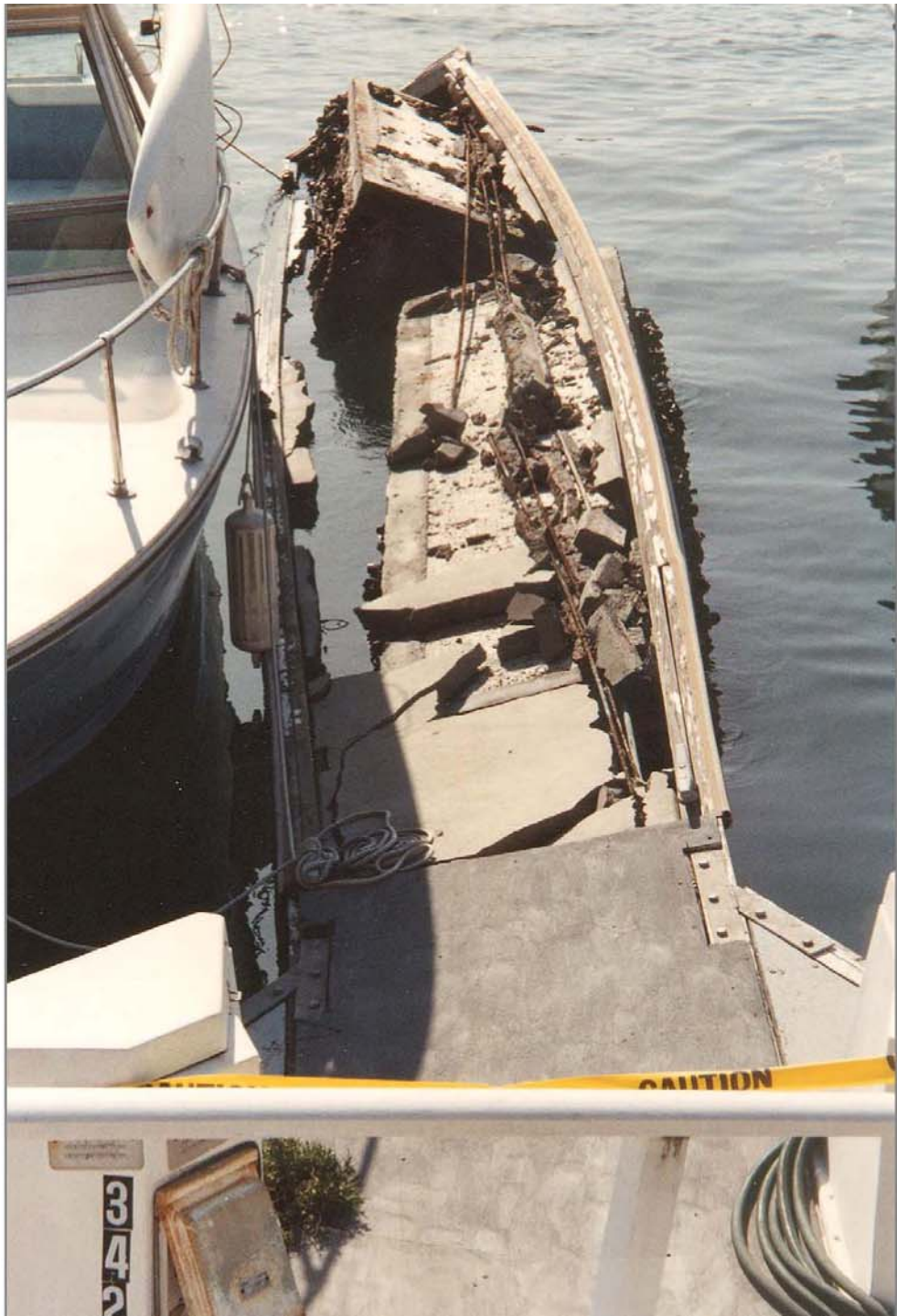


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Peninsula Marina Channel Islands







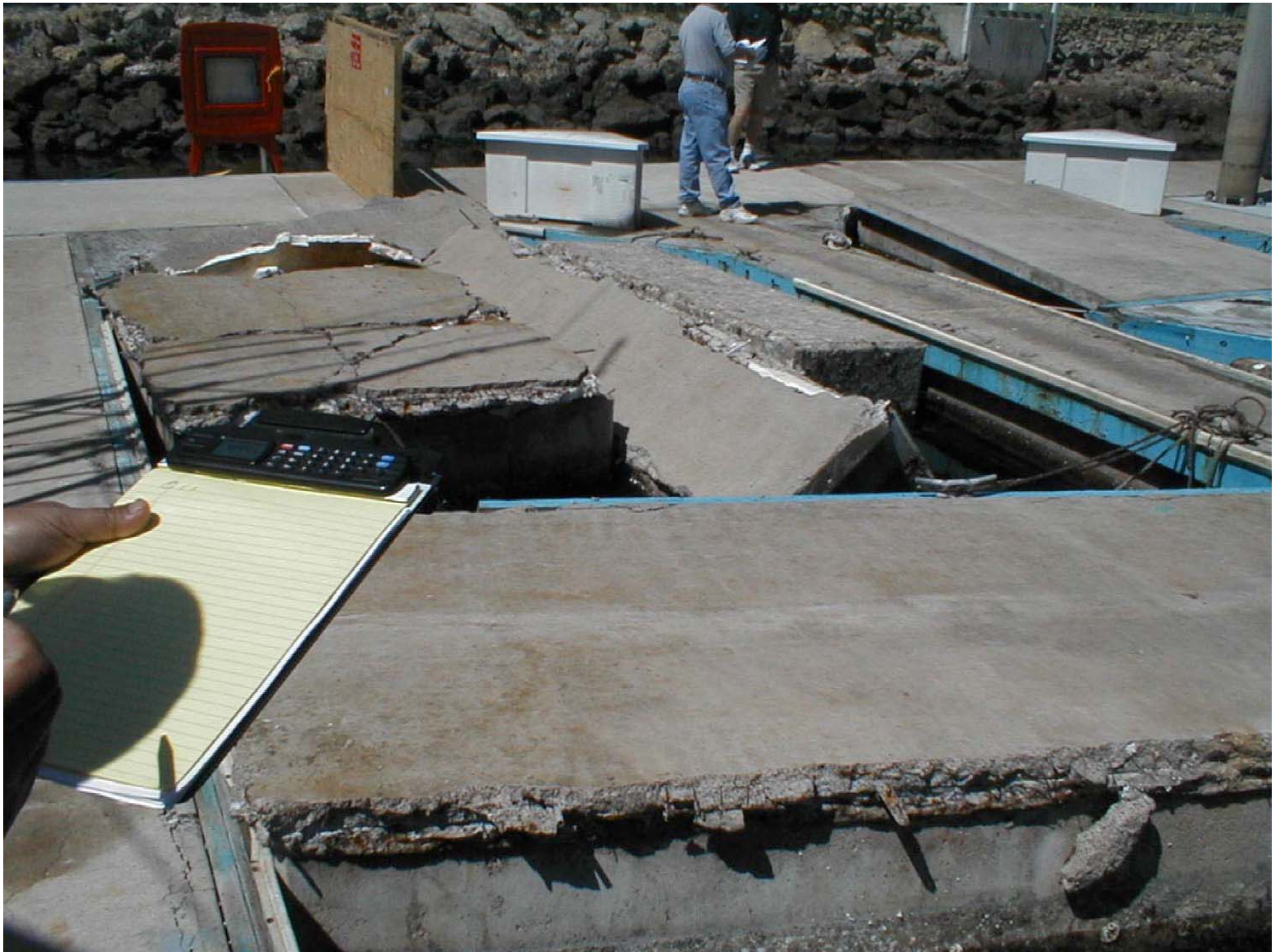


















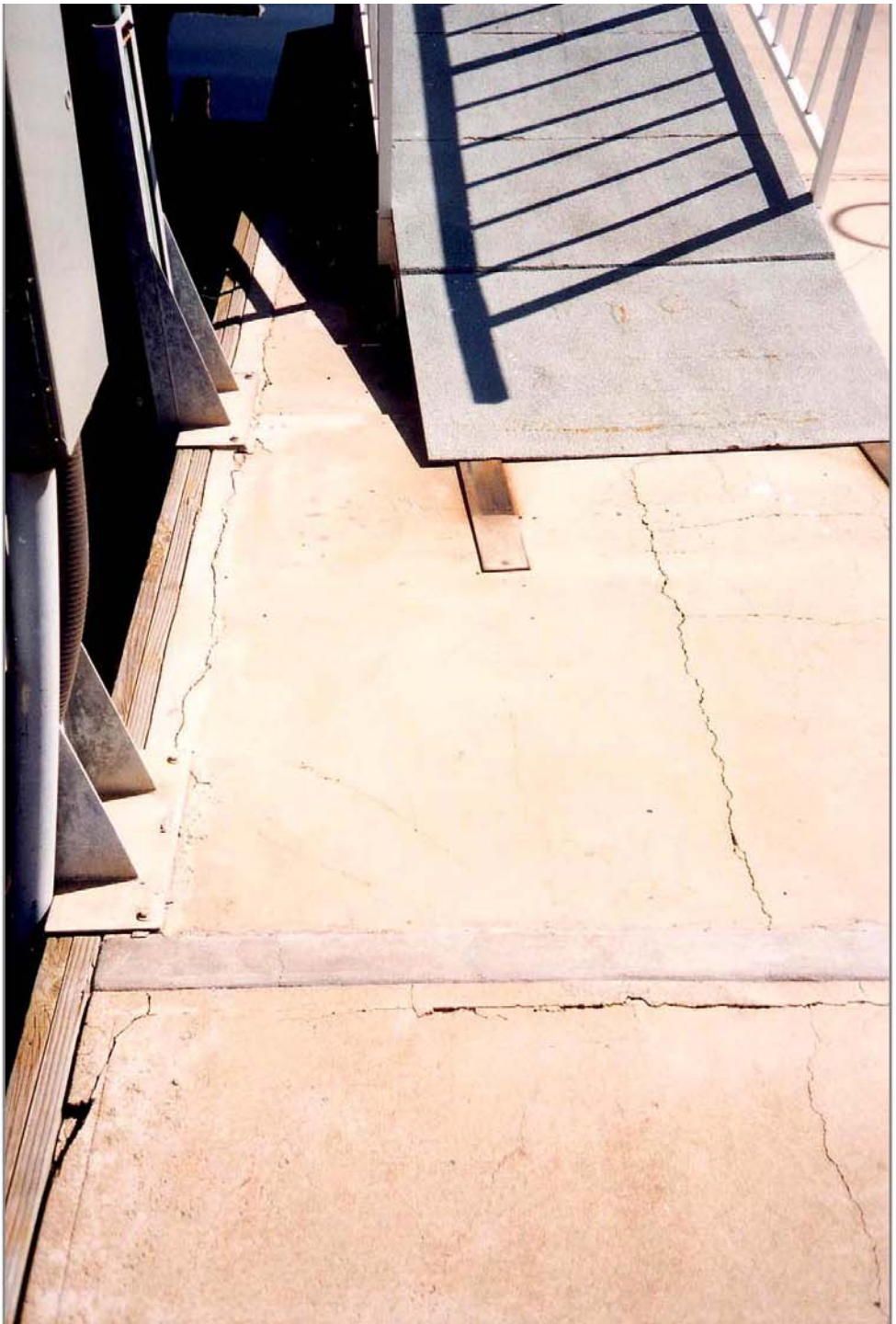
Bayshore Marina Newport Beach



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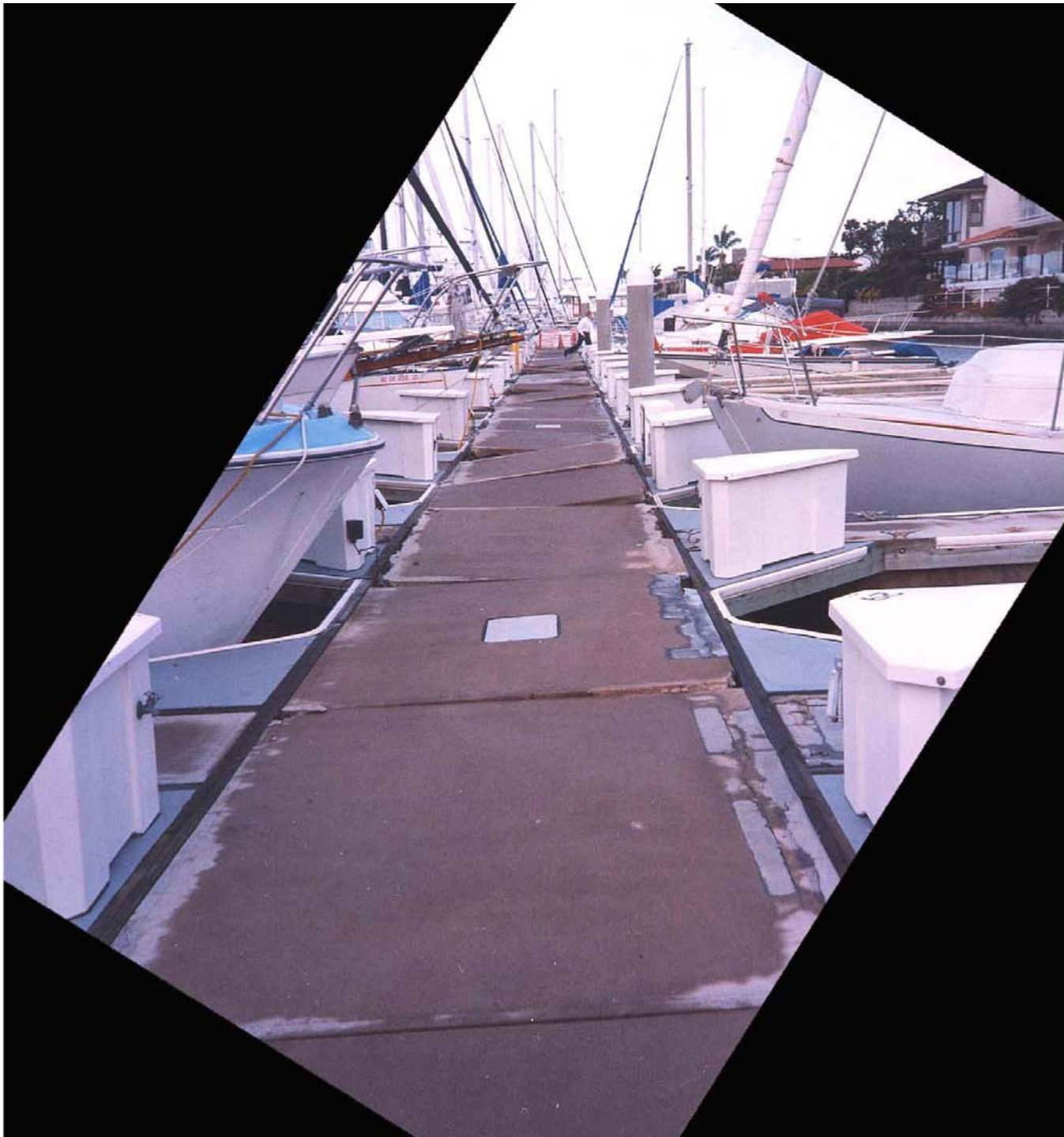












AGENDA

Marina 101

- Questionnaire
- Constraints
- Terminology & Definitions
- Layout Concepts
- Americans With Disabilities Act (ADA)
- Generic Dock Layouts/Comparisons
- Mix Designs/Waiting List
- Dock Material Types



QUESTIONNAIRE

- Name & Contact Information
(Discretionary Input)
 1. Sail or Power?
 2. Boat Length / Width / Draft
 3. Slip Location (Mark Location on Enclosed Map)
 4. Preference for Slip Location? E or W?
C or I?
 5. How Many Years in This Marina?
 6. Do You Plan to Buy a Larger Boat?

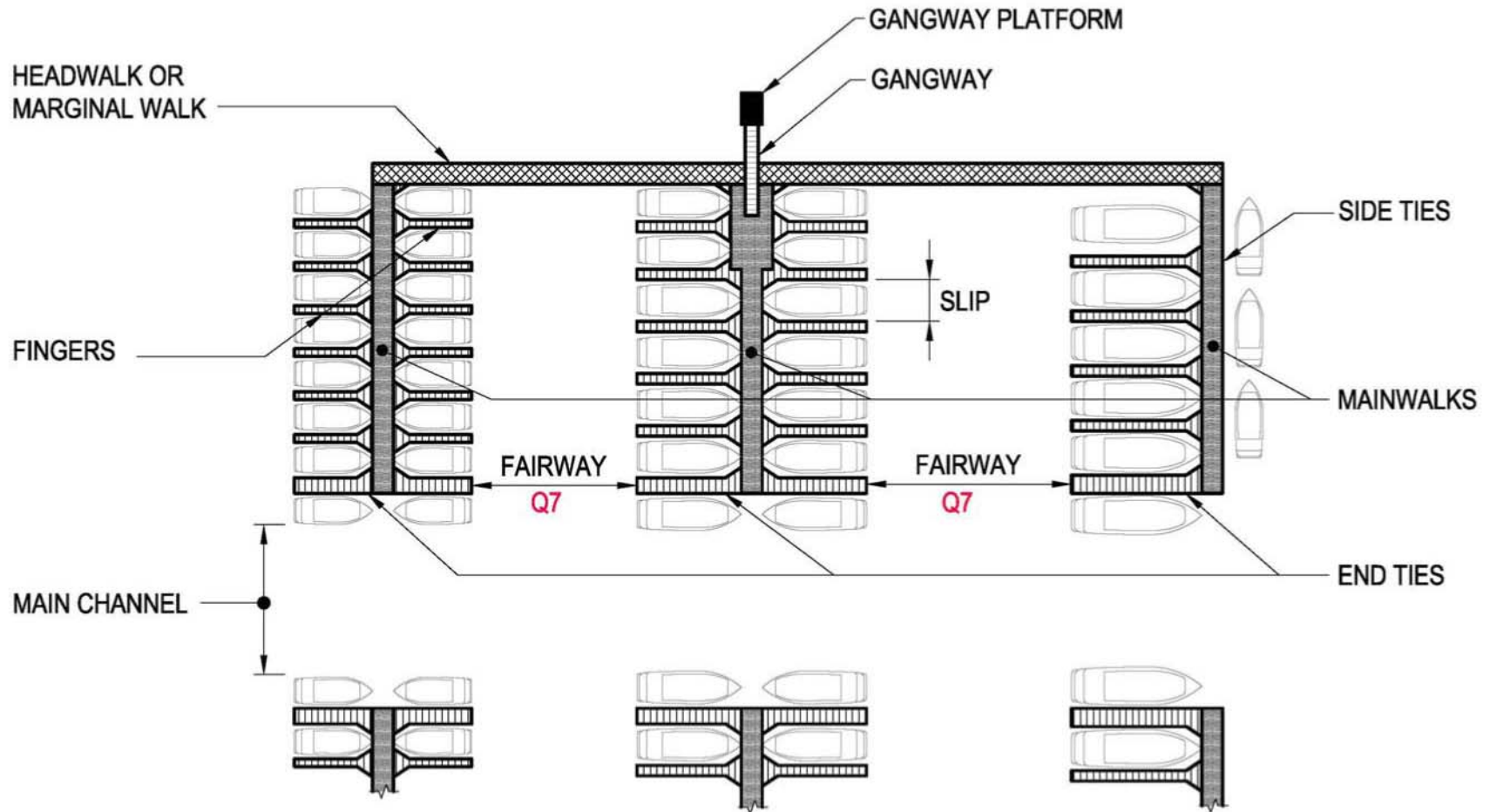


Constraints

1. Federal Waters & Turning Basins
2. Navigable Waterways
3. Basin Depths
4. Competing Water Usages

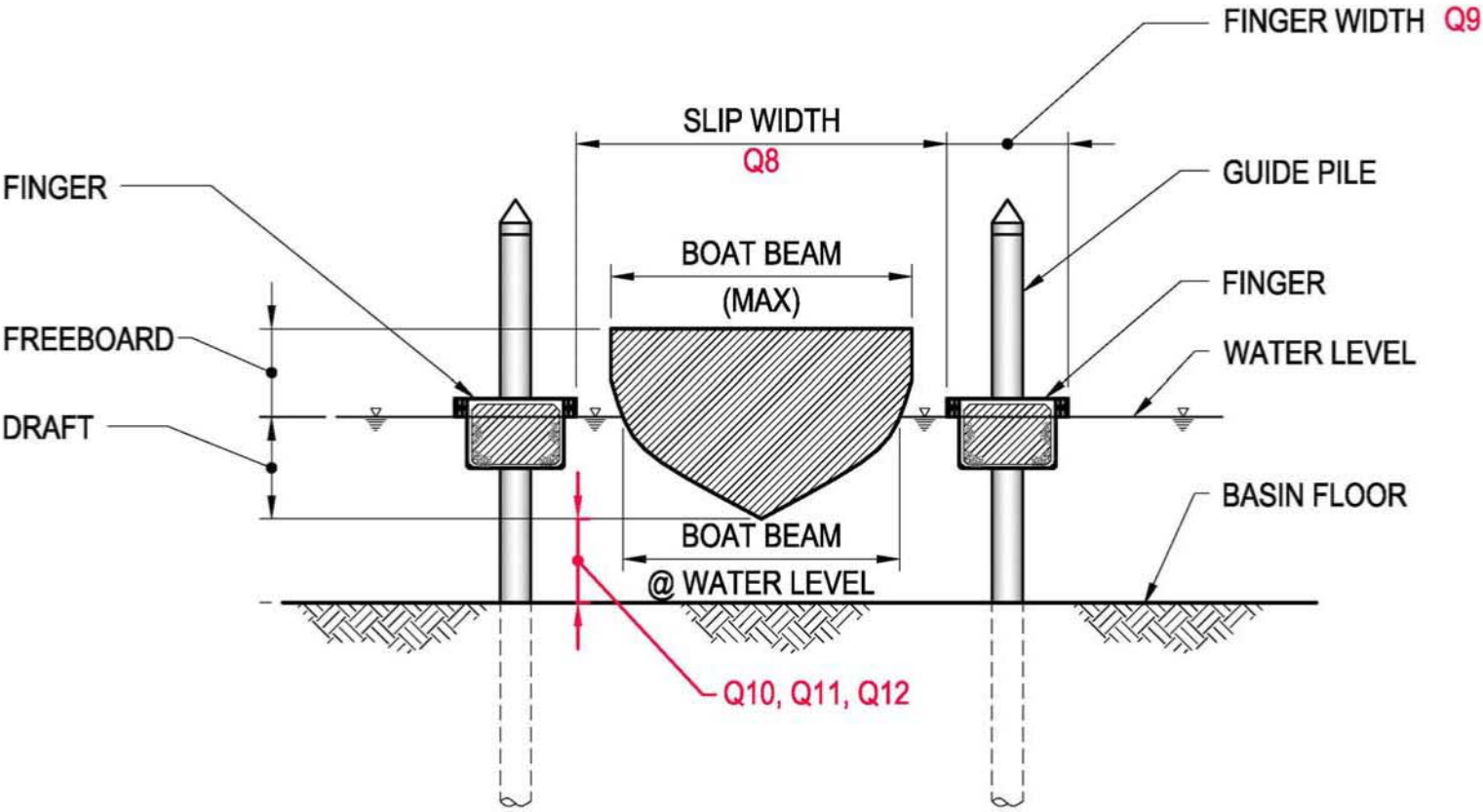


DANA POINT MARINAS COUNTY OF ORANGE



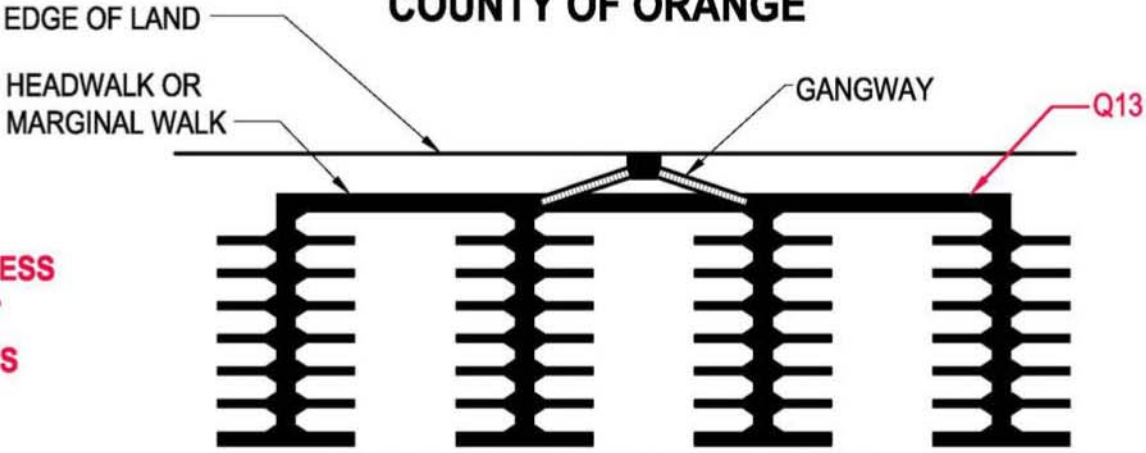
MARINA TERMINOLOGY

**DANA POINT MARINAS
COUNTY OF ORANGE**



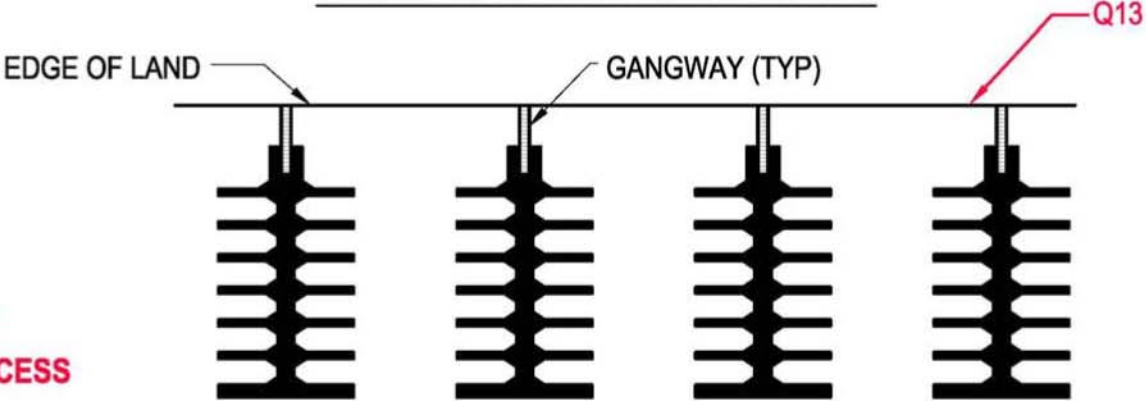
SLIP CROSS-SECTION

**DANA POINT MARINAS
COUNTY OF ORANGE**



- EASE OF ACCESS
- HIGHER COST
- LOSS OF SLIPS

CONNECTED BY HEADWALK

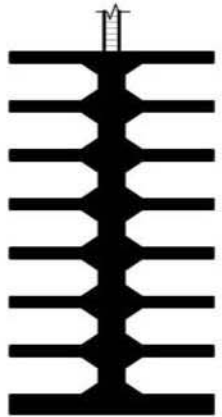


- SECURITY
- LOWER COST
- REDUCED ACCESS

INDEPENDENT DOCKS

MARGINAL ACCESS

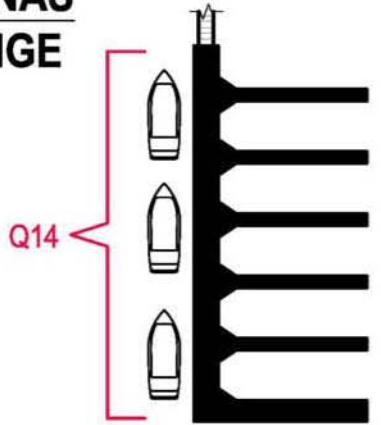
**DANA POINT MARINAS
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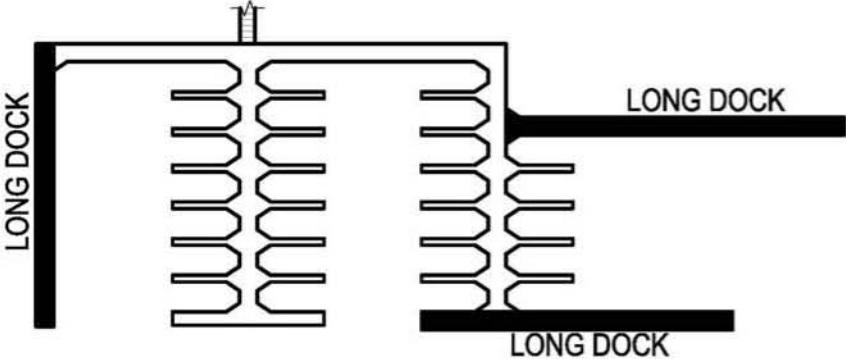
**TRADITIONAL
"X-MAS TREE"**



PITCH FORK



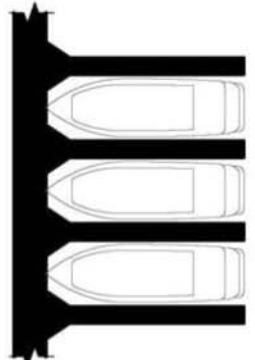
**SIDE LOADED
MAINWALK**



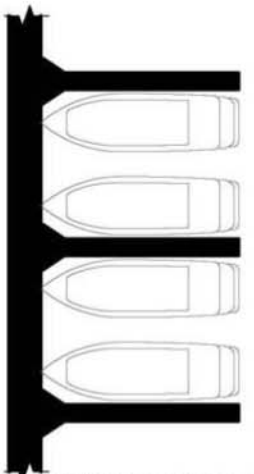
LONG DOCK

TYPICAL DOCK GEOMETRIES

**DANA POINT MARINAS
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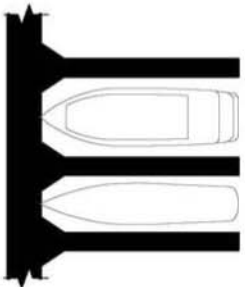


SINGLE WIDE



DOUBLE WIDE Q15

SLIP TYPES

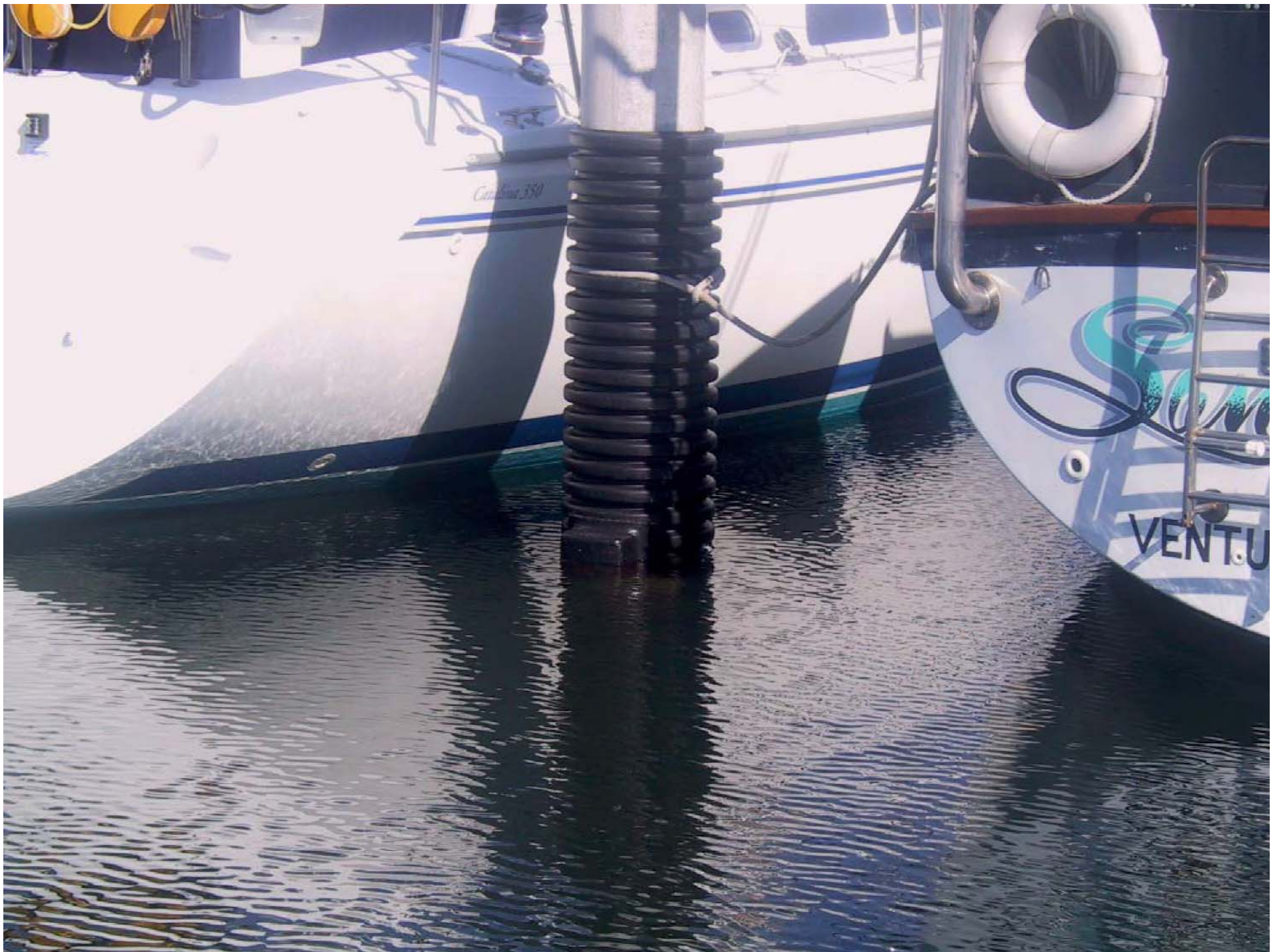


POWER

SAIL (6" TO 30" LESS THAN POWER)

SAIL VS. POWER

SLIP OPTIONS



Live-Aboards

Marina Security
Utility Usage
Landside Facilities

(Restrooms/Shower/Laundry) **Q16**









Dock System Comparisons

- Concrete Dock Systems (Contemporary)
 - Stability – Solid Feel
 - Reduced Maintenance
 - Utility Access – Challenging
- Wood Docks (Rustic)
 - Stability - Flexible
 - Higher Maintenance
 - Utility Access - Good
- Hybrids: Aluminum, Recycled Plastic



Dock System Comparisons

- Lifespan
 - Quality Concrete & Wood Dock Systems should survive for 35 to 45 years, with maintenance.
- Comparative Costs
 - Concrete Systems are generally less expensive than Wood Dock Systems (3% to 15%)
- Other Products
 - Aluminum Systems
 - Recycled Plastic Deck Boards



DOCK BOXES

POWER CENTERS

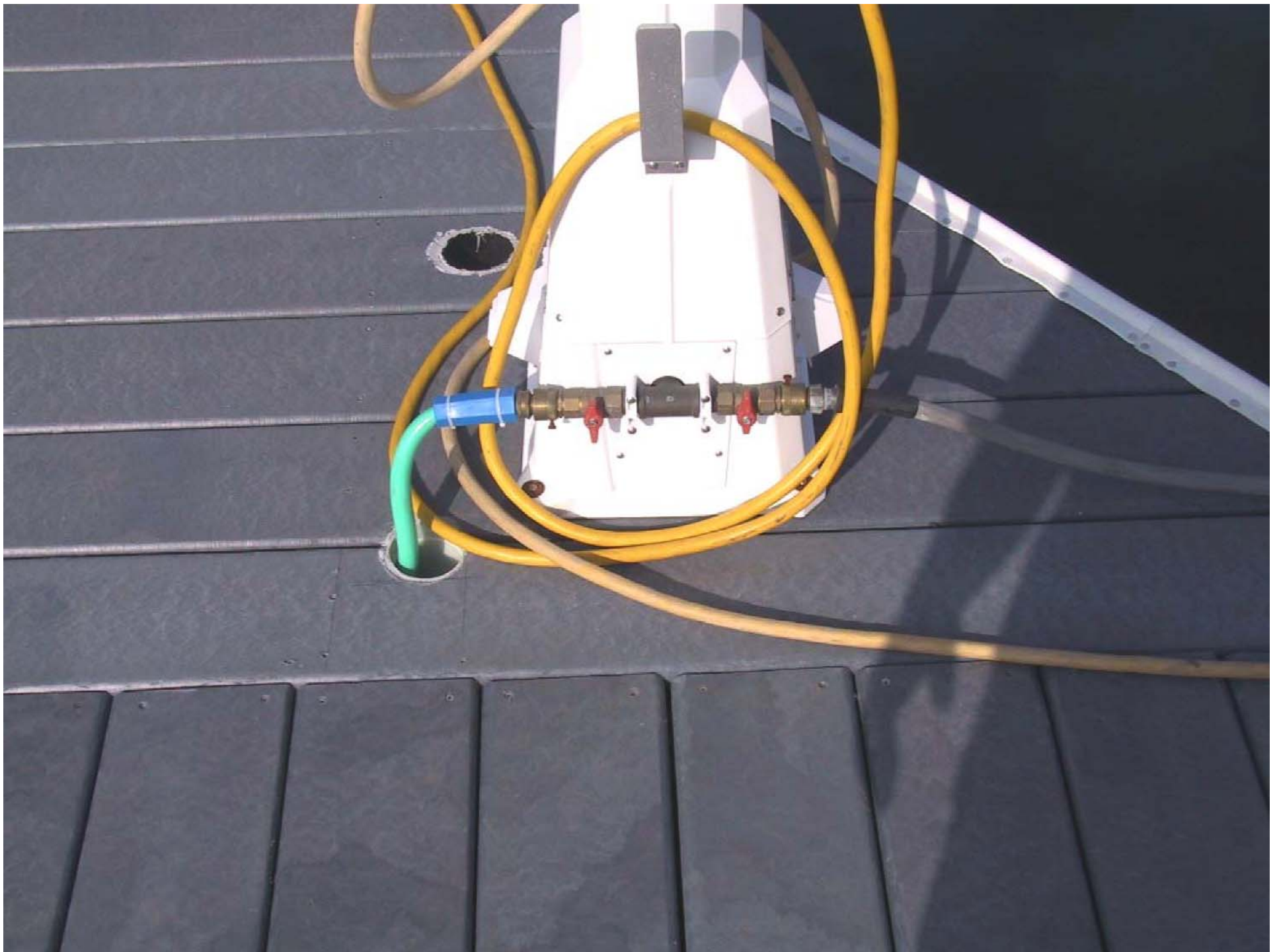
UTILITIES



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DOCK BOXES

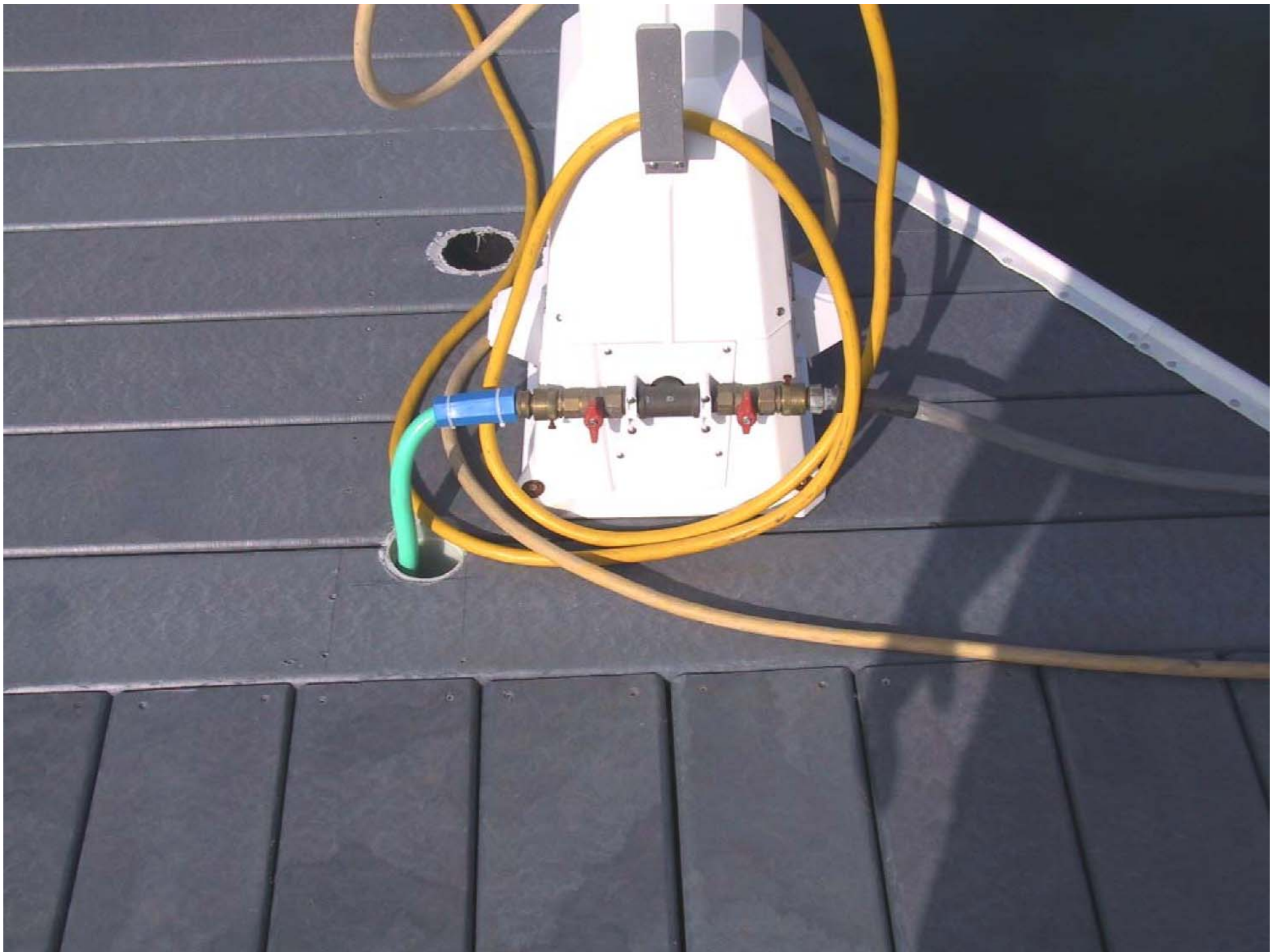
POWER CENTERS

UTILITIES

















UTILITIES

- Power
- Lighting
- Water
- Sewage Pumpout
- Telephone
- CCTV

– Adequacy of Existing Utilities?

Q18

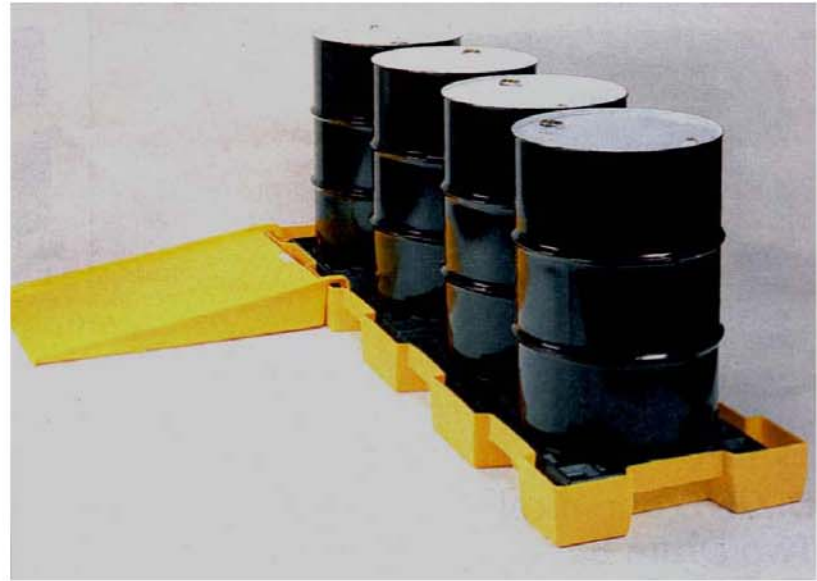


Best Management Practices

Dana Point Marinas

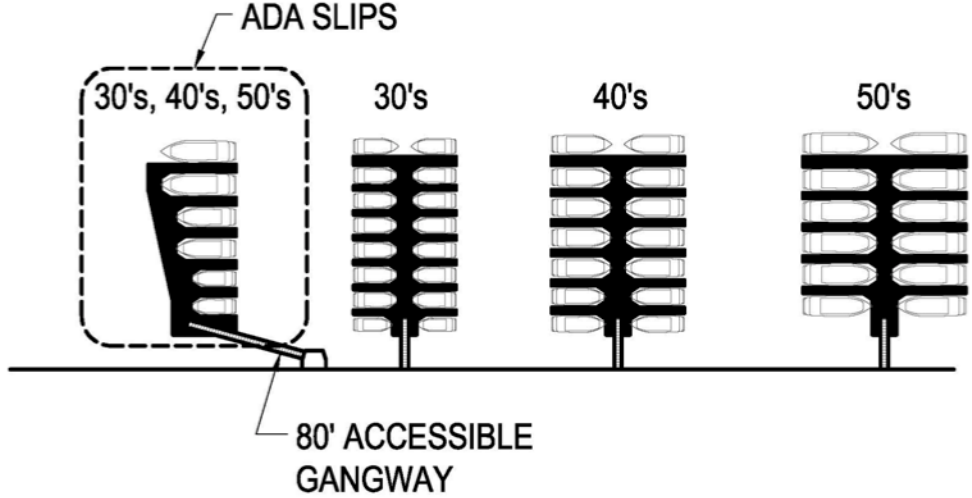
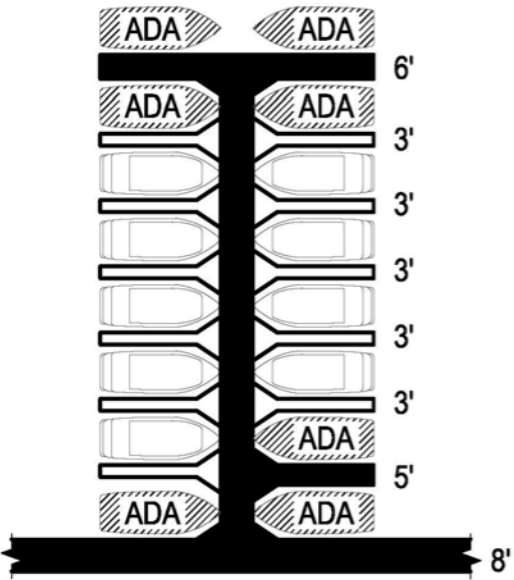
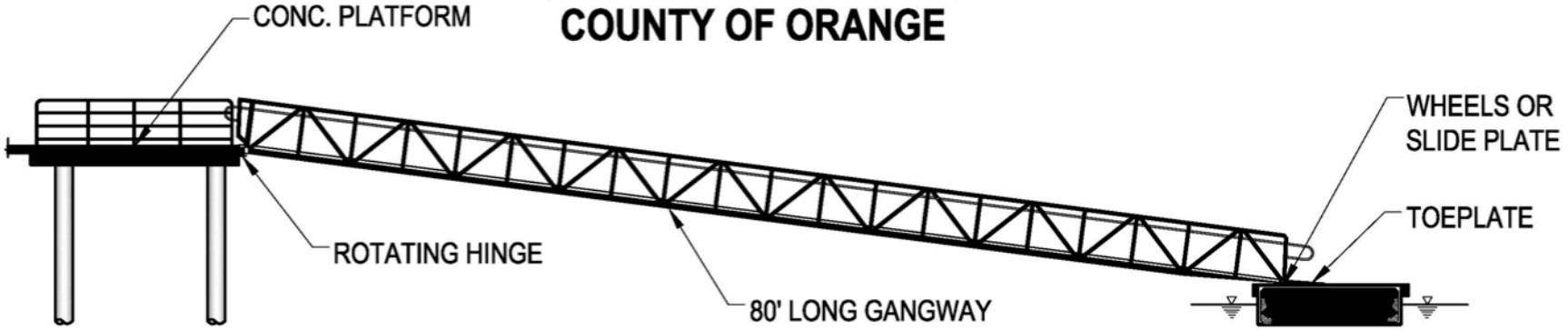
- Environmental Protection of Harbor Waters
 - Sewage Pumpout
 - Boat Maintenance Within Slips
 - Waste Products Handling & Disposal
 - Emergency Spill Handling





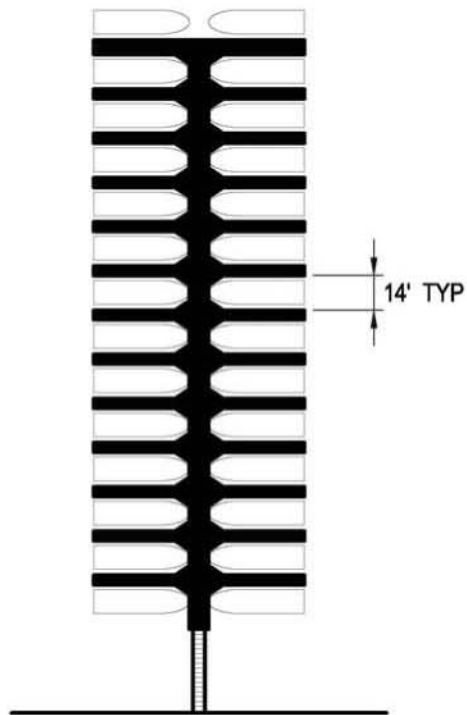


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COUNTY OF ORANGE**

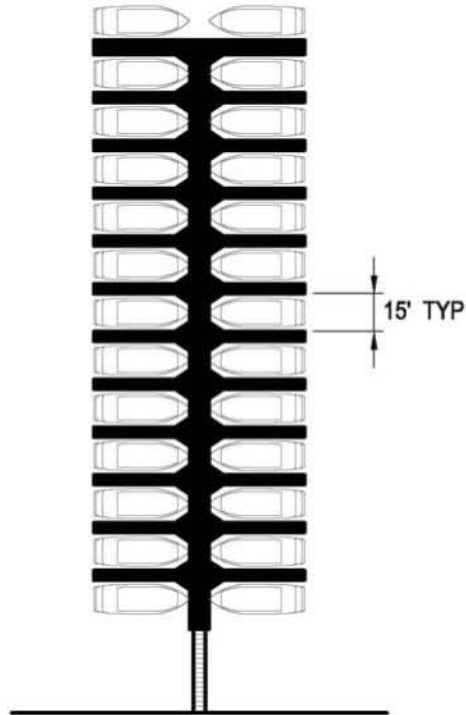


ADA ACCESS

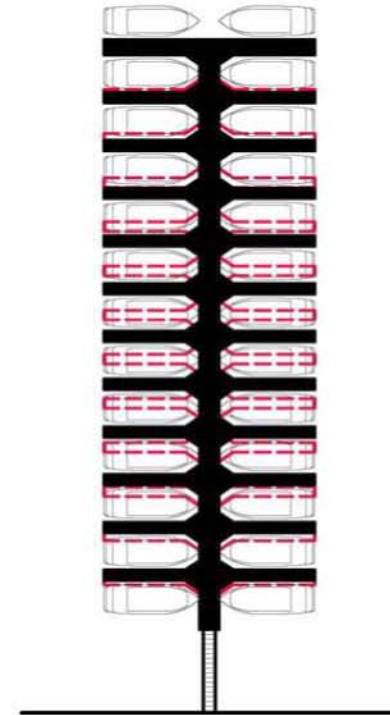
**DANA POINT MARINAS
COUNTY OF ORANGE**



**EXISTING
(28 BOATS)**



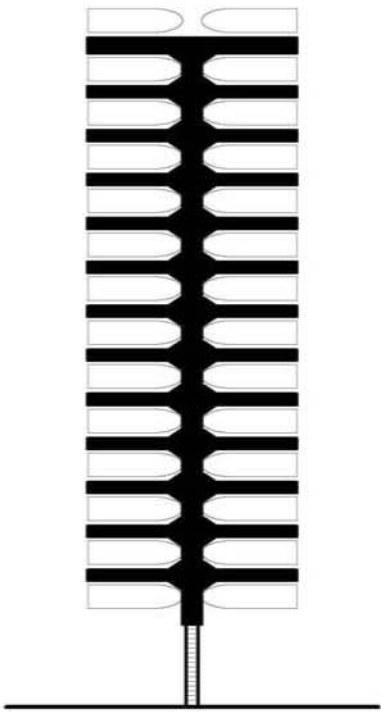
**DBAW
POWER BOAT
SLIP WIDTHS
(26 BOATS)**



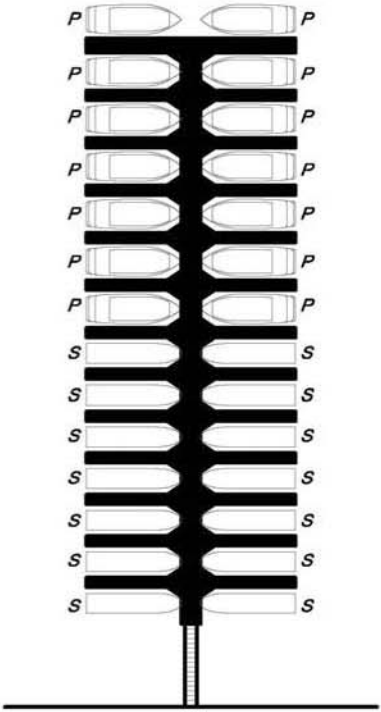
**OVERLAY
NET LOSS = 2 SLIPS**

Slip Arrangement Impacts

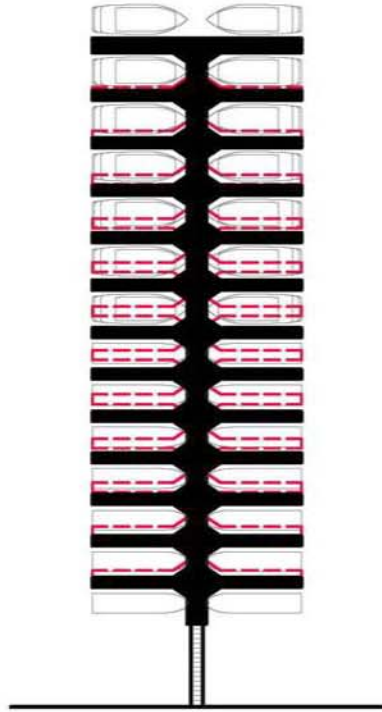
**DANA POINT MARINAS
COUNTY OF ORANGE**



**EXISTING
(28 BOATS)**



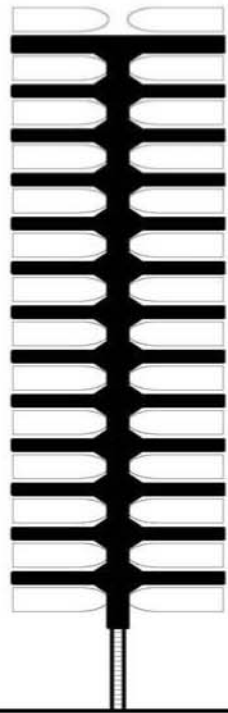
**DBAW
POWER & SAIL
SLIP WIDTHS
(28 BOATS)**



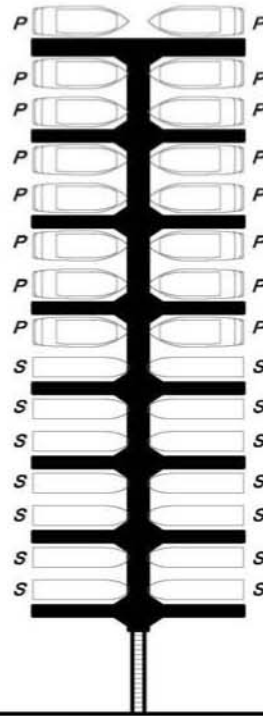
**OVERLAY
NET LOSS = 0 SLIPS**

Slip Arrangement Impacts

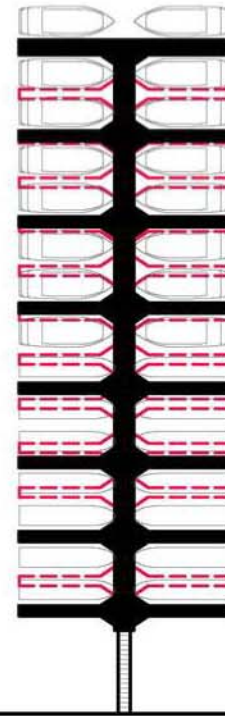
**DANA POINT MARINAS
COUNTY OF ORANGE**



**EXISTING
(28 BOATS)**

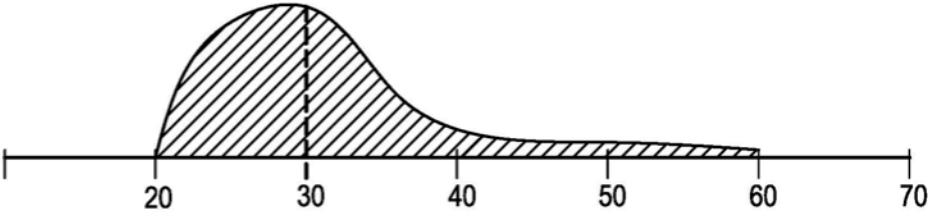


**DBAW
POWER & SAIL
DOUBLEWIDES
(30 BOATS)**

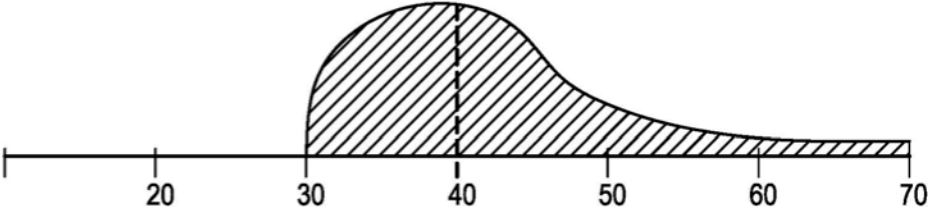


**OVERLAY
NET GAIN = 2 SLIPS**

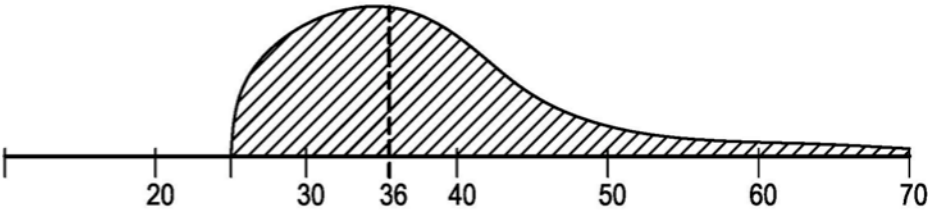
**DANA POINT MARINAS
COUNTY OF ORANGE**



30 YR+ MARINAS (30' AVG.)



CURRENT MARKET PROJECTIONS (40' AVG.)



COMPROMISE MIX (36' AVG.)(VENTURA, LA, LB)

MIX DESIGN

DANA POINT MARINAS COUNTY OF ORANGE

SLIP LENGTH	QUANTITY
20	36
21	6
22	91
24	102
25	809
26	269
28	122
30	355
31	1
34	2
35	263
36	3
40	128
45	100
50	44
53	13
55	33
57	7
60	15
Total	2,399
Average Slip Length	29.85'

EXISTING DANA POINT MIX

59.8%
26%
5.3%
4.2%
1.8%
14.2%
0.5%
1.4%
0.3%
0.6%

EAST BASIN

SIZE	Jun-06	Est. wait time
ITWL	1	
24'	14	5 mo.
28'	52	4 mo.
29'	35	1 yr.
33'	192	1.5 yrs.
38'	300	3.5 yrs.
43'	233	6 yrs.
48'	167	7 yrs.
53'	69	7.5 yrs.
58'	65	8.5 yrs.
63'	17	13 yrs.
END TIE	25	10 yrs.
TOTAL	1170	

1068

+90% (1068) of wait list is over 30'

WEST BASIN

SIZE	Jun-06	Est. wait time
ST	2	2 mo.
22	0	available
24	14	6 mo.
25	14	6 mo.
26	32	6 mo.
28	130	2 yrs.
30	267	5 yrs.
35	533	10 yrs.
40	264	15 yrs.
45	324	12 yrs.
50	177	15 yrs.
55	58	15 yrs.
END TIE	82	15 yrs.
TOTAL	1897	

1705

90% (1705) of wait list is 30' or over

Of 3,067 on Both Lists, 2,773 are 30' or Over

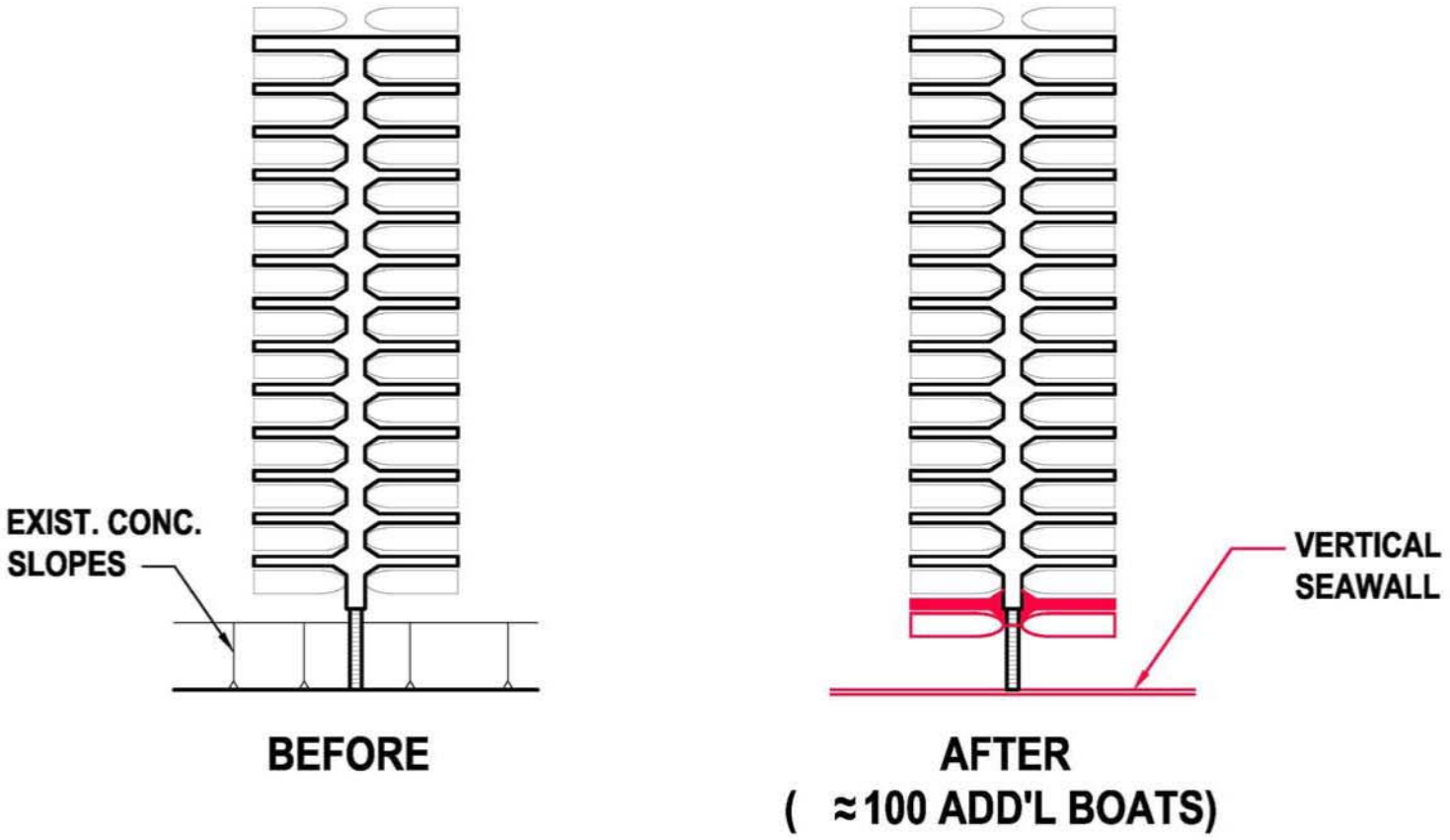
WAITING LIST

Marina Expansion Opportunities

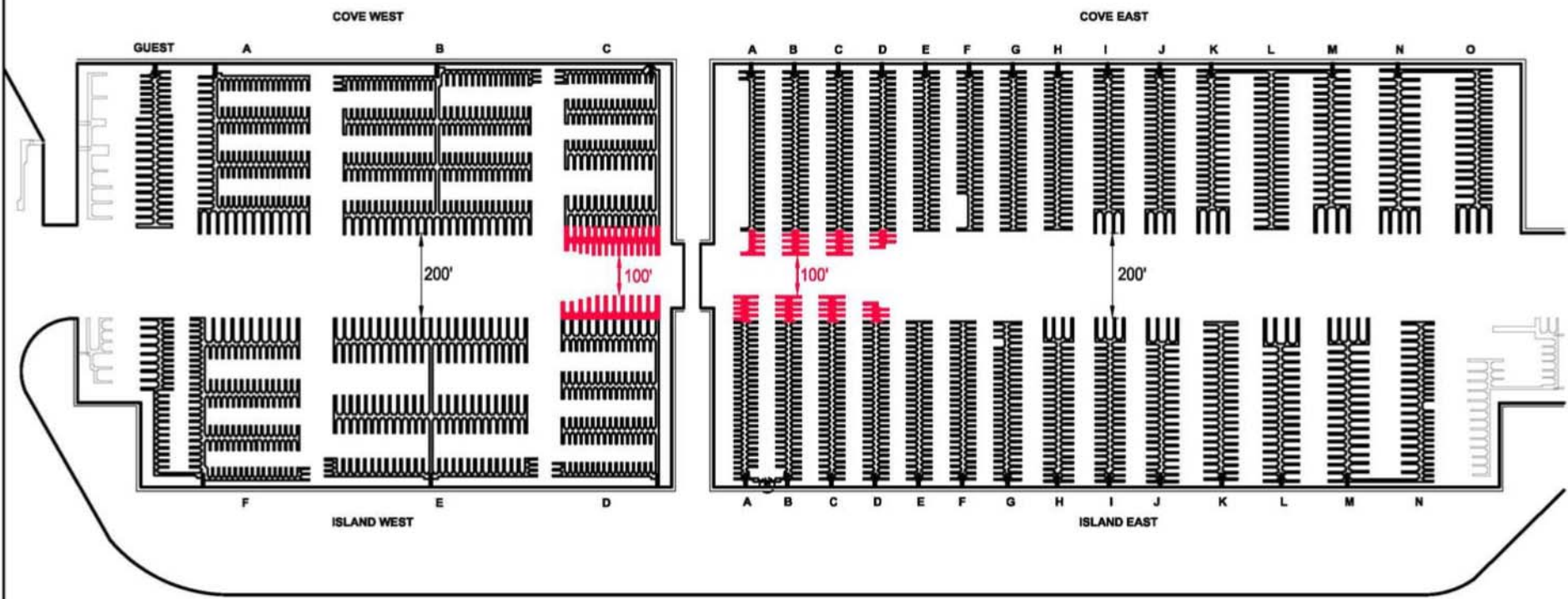
- Extend Slips into Federal Waterways
- Extend Slips into Existing Slopes (Convert Slopes into Vertical Seawalls)
- Extend Slips into Main Channel @ Bridge
- Extend Slips into Main Channel Throughout (Q20)



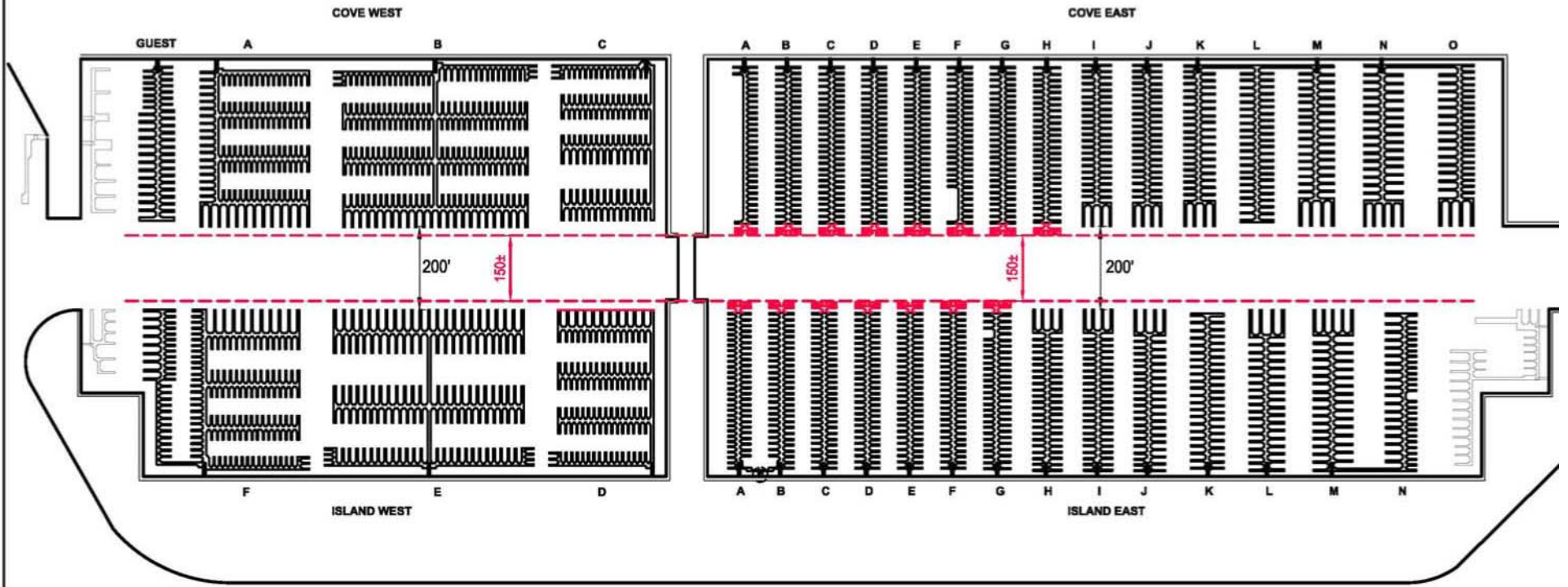
**DANA POINT MARINAS
COUNTY OF ORANGE**



DANA POINT MARINAS COUNTY OF ORANGE



DANA POINT MARINAS COUNTY OF ORANGE



CONCLUSION

- Questionnaire
 - Additional Responses (Q21 thru Q27)
- Focus Groups & Breakout Meetings
 - ADA, Sail and Power Boaters, Others?
- Next Meeting (Workshop #2 – Nov 28)
 - Summarize Questionnaire/Issues
 - Marina Mix Options
 - Boat Counts & Comparisons
- Q&A

