Multiple Vessel Mooring System – Ad Hoc Committee Pilot Program Evaluation Final Report

City Council Study Session

June 10, 2014

Background

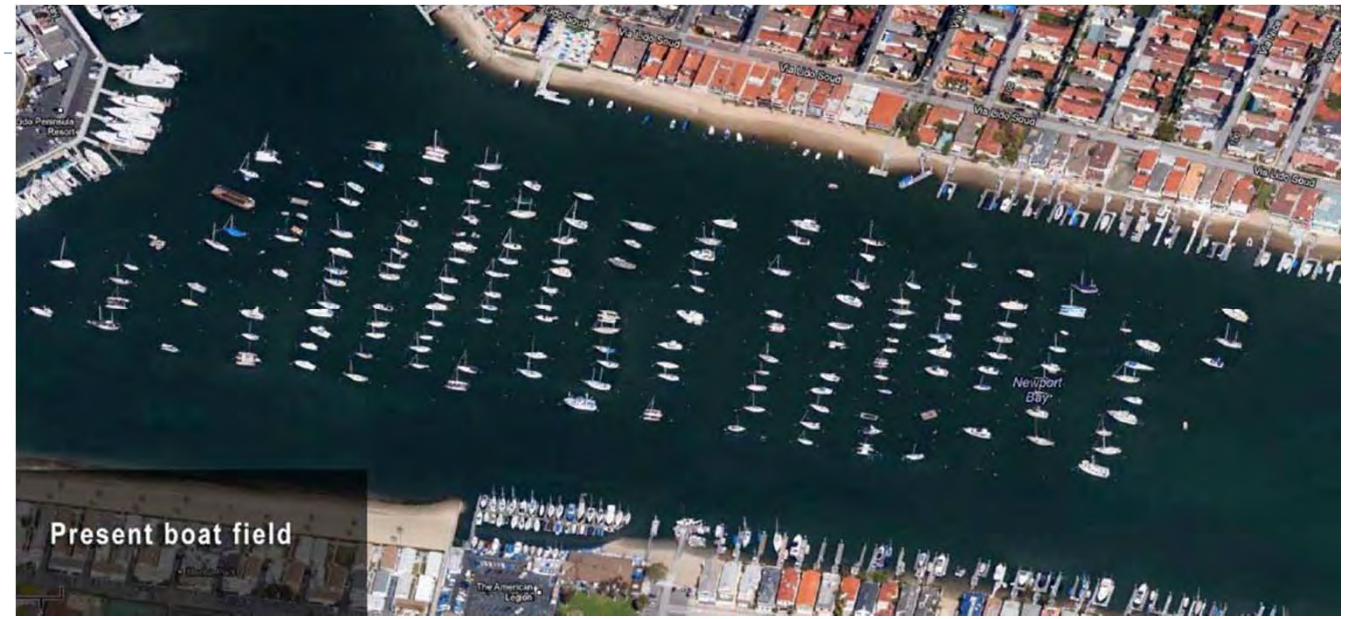
- "**Multiple Vessel Mooring System**" (**MVMS**) currently allowed per NBMC 17.60.040 (B)(1)(c) & 17.01.030 (J)(15) in the *single-point mooring fields only* (e.g. NHYC and BYC fields)

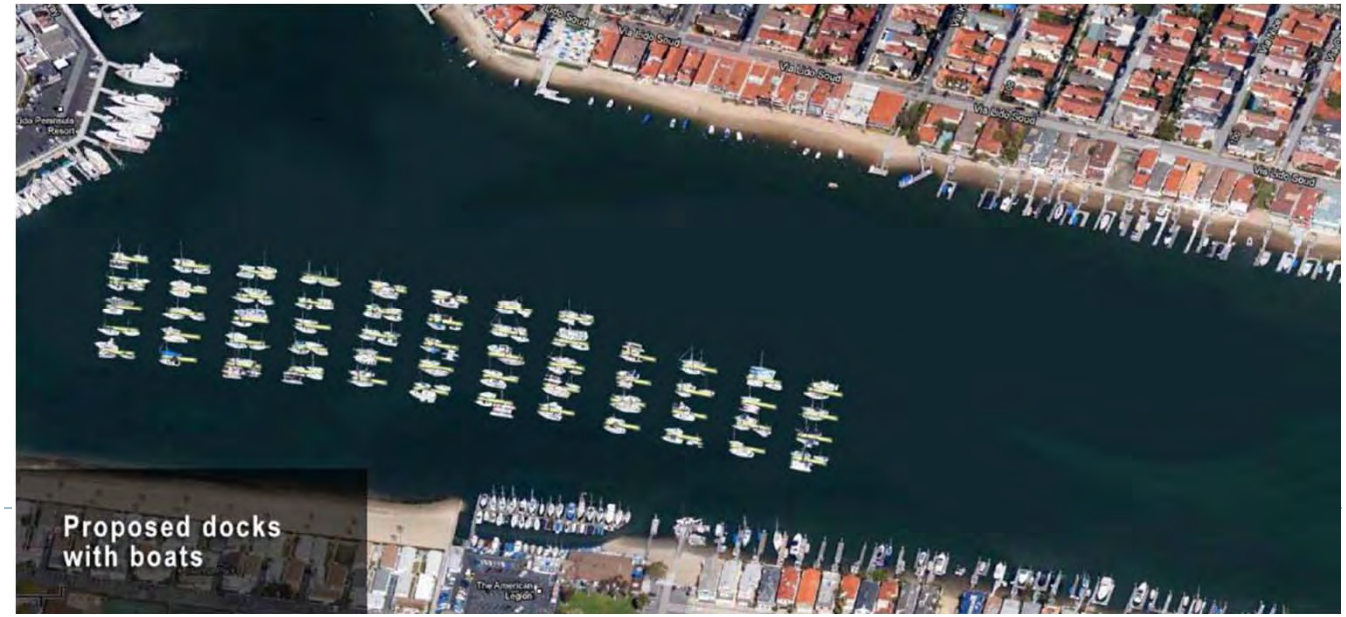
Pilot Program Evaluation

- February 2014:
  - Mayor Hill tasked the Harbor Commission to:
    - Study the MVMS in the double-point mooring areas; and
    - Return to Council with a recommended ***pilot program***
- Purpose of the Pilot Program:
  - Provide amenities to the mooring community by providing an easier way to moor a vessel
  - Decrease the mooring field footprint, therefore increasing usable water area
  - Provide a convenient load/unload point for a water taxi system

Examples of Full-Scale Mooring Conversion to MVMS
"C" Field

Examples of Full-Scale Mooring Conversion to MVMS
"H & J" Fields





Examples of Full-Scale Mooring Conversion to MVMS
"D" Field

Timeline

- February 2014: Harbor Commission tasked to develop pilot program
- March 12: Ad-Hoc Committee formed
  Commissioners Brad Avery (Chair) and Duncan McIntosh
- Publicly Noticed Meetings
  - March 24 Ad-Hoc Committee
  - March 31 Ad-Hoc Committee
  - April 9 **Harbor Commission**
  - April 14 Ad-Hoc Committee
  - April 28 Ad-Hoc Committee
  - May 14 **Harbor Commission**
  - May 21 Ad-Hoc Committee
- Newport Mooring Association Outreach (discussed later)

Ad-Hoc Committee Findings

- No pilings
  - Too "permanent" for pilot project (does not allow for adjustment)
  - Possible view issue
- Work/Wash-Down Float (NMA suggestion)
- Legal Concerns with City Owned Dock? (liability)
- No Electricity / No Water
  - Too complex for pilot program
  - Must be buried at least 5' below sediment surface (Corps requirement)
  - Proximity to street-end required for utilities
  - Possible future option

Ad-Hoc Committee Findings cont'd

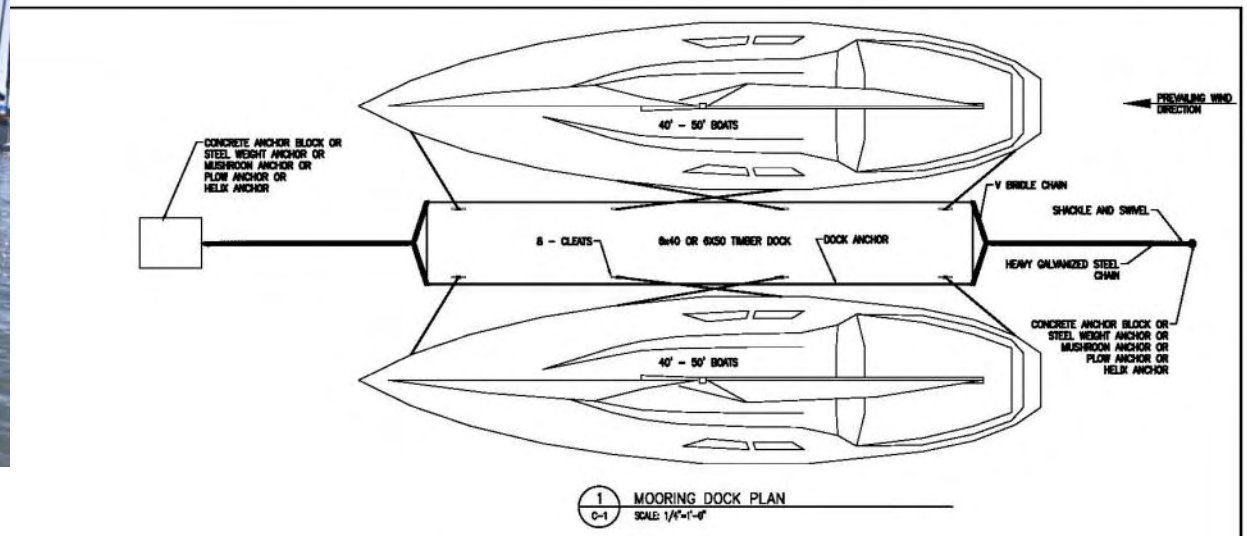
- Possible Mooring Locations for MVMS
  - Existing permittees volunteer for pilot project
    - No charge for floats
    - Permittees continue paying normal annual mooring permit fee
    - Permittee's mooring equipment stored out of water

- C Field (City owned moorings for visiting boaters)
- D Field (Proximity to Harbor Resources)
- H & J Fields (Large field, high visibility)

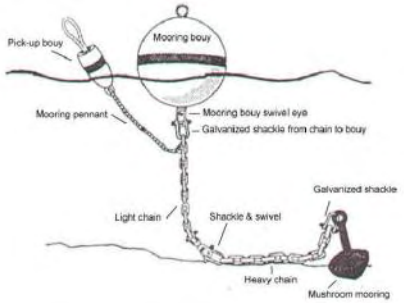
Ad-Hoc Committee Findings cont'd

- Anchor options:
  - Existing buoy, weight & chain method
  - Helix anchor & elastic band method
  - Hybrid (weight + bands)

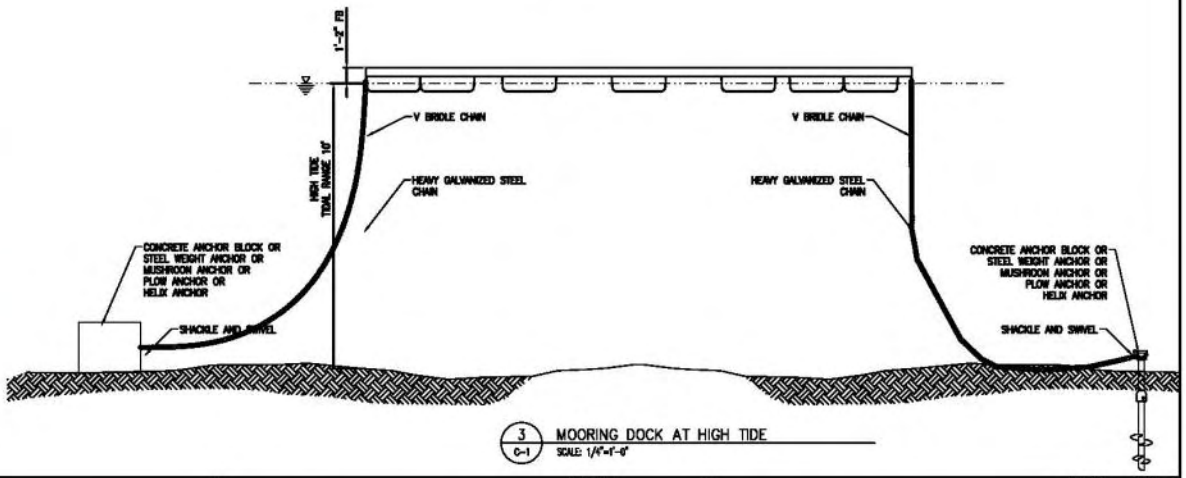
Floating Dock with Buoy, Weight & Chain Method



1 C-1 MOORING DOCK PLAN
SCALE: 1/4"=1'-0"



4 C-1 TYPICAL CHAIN MOORING
SCALE: NTS



3 C-1 MOORING DOCK AT HIGH TIDE
SCALE: 1/4"=1'-0"

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

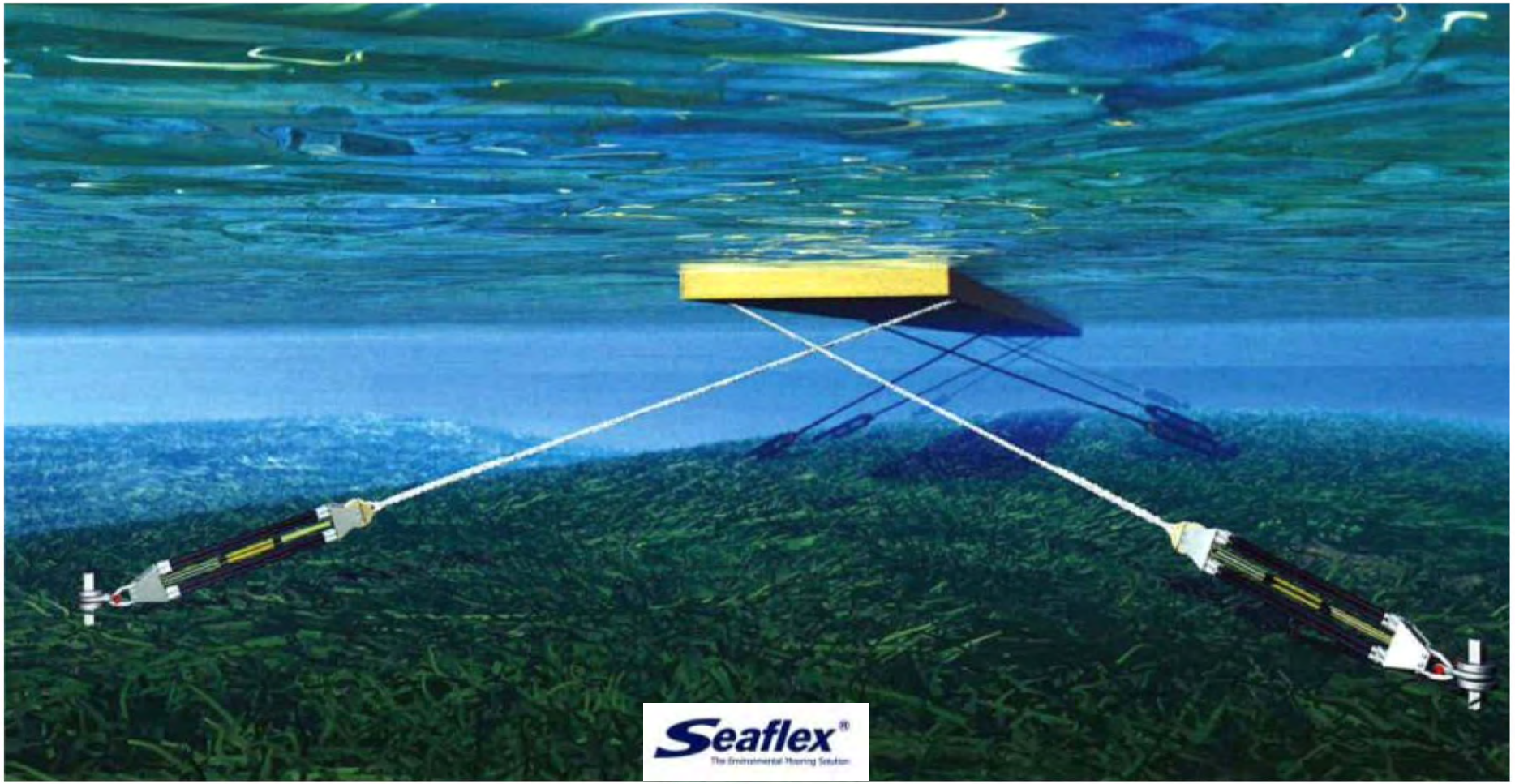
URS
310 Golden Shore, Suite 100
Long Beach, CA 90802
Tel: (562) 366-2500
Fax: (562) 256-7905

ENGINEER	_
DESIGNER	_
CAD OPERATOR	_
CHECKER	_
PROJECT MANAGER	_

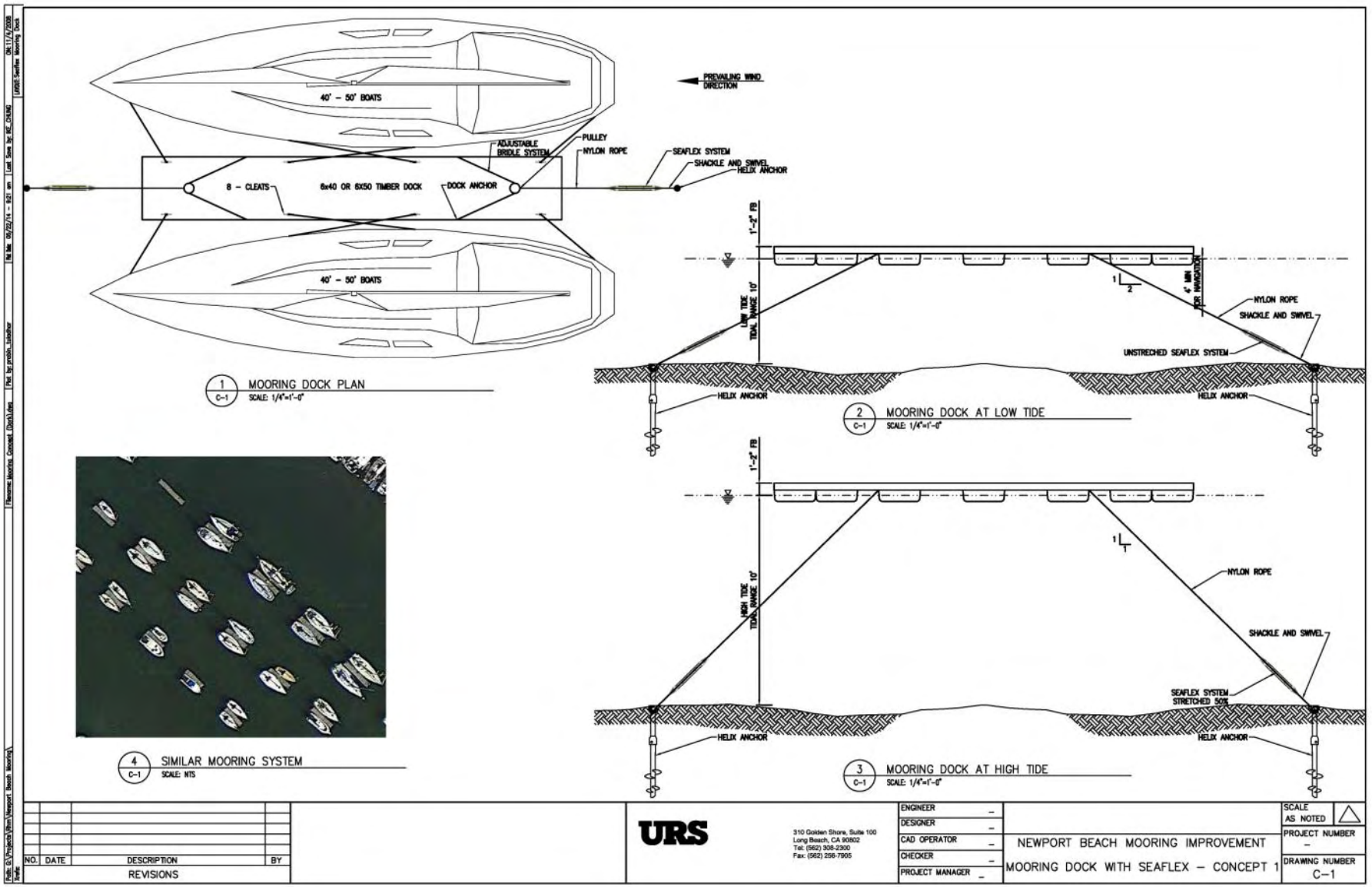
NEWPORT BEACH MOORING IMPROVEMENT
MOORING DOCK WITH SEAFLEX - CONCEPT 2

SCALE	AS NOTED
PROJECT NUMBER	-
DRAWING NUMBER	C-2

Floating Dock with Helix Anchor & Seaflex Band Method

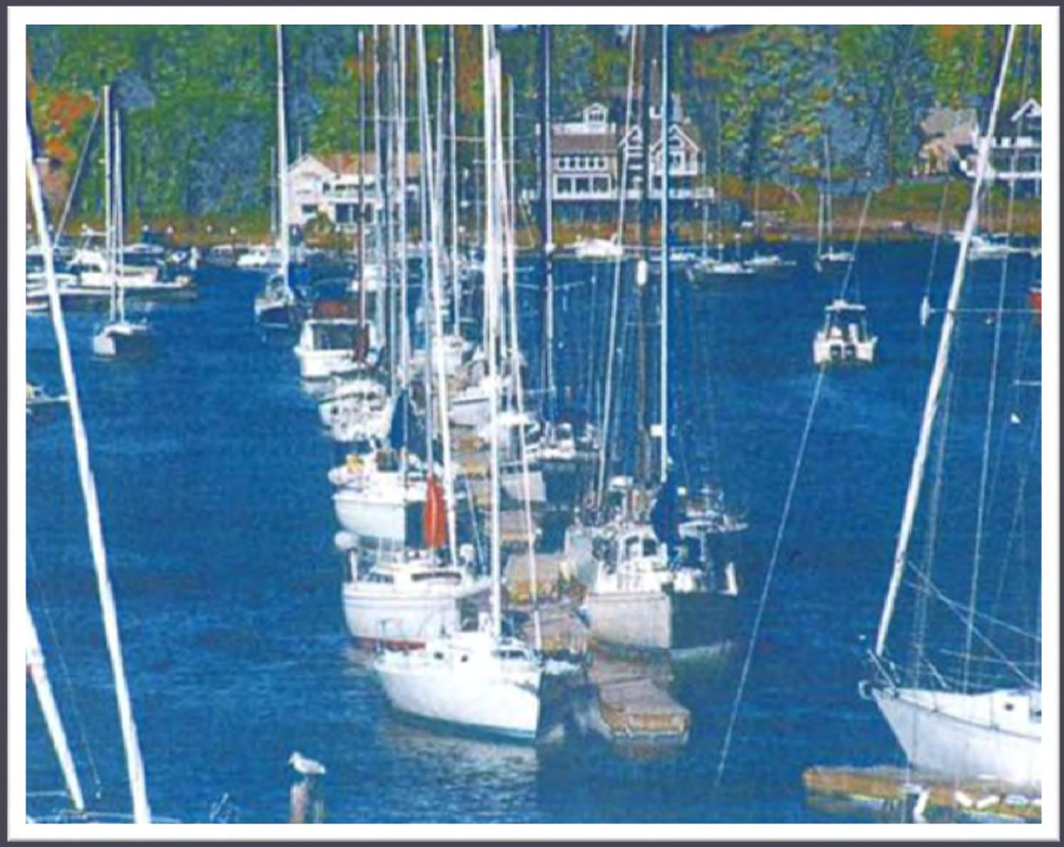


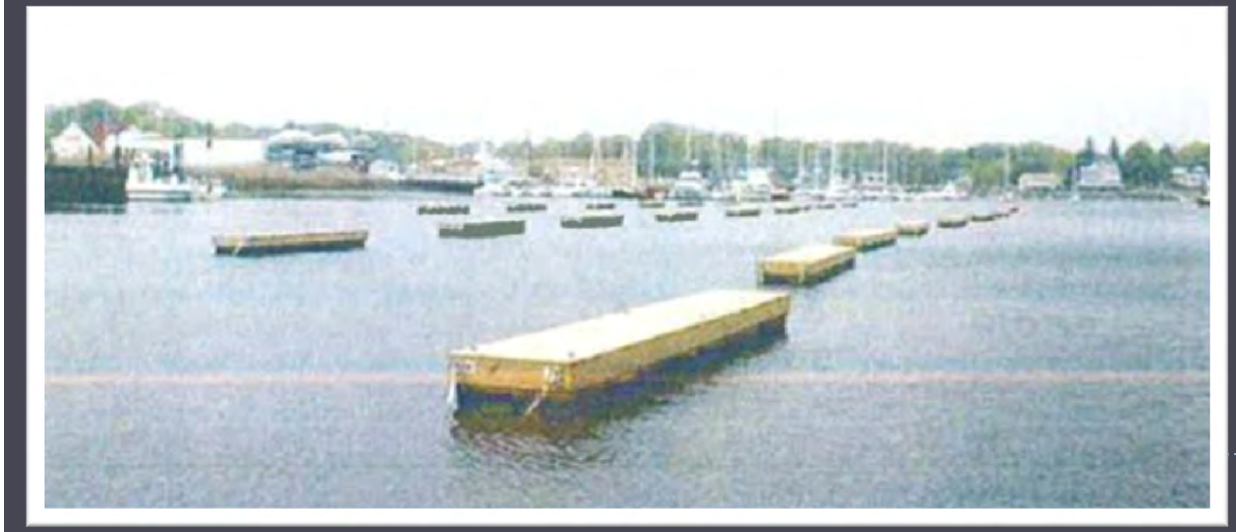
Floating Dock with Helix Anchor & Seaflex Band Method



Example of MVMS

Milford, CT
Installed 2003
75 mph Wind Rating
34' x 4' Floats





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The Environmental Mooring Solution

Community Surveys

- Newport Mooring Association Survey Results (web)
  - "Do you want floating docks?"
    - 61 responses
    - 85% negative
  - "Would you volunteer your mooring for a pilot program?"
    - 54 responses
    - 11 "yes"
  - "What are the top priorities for mooring permittees?"
    - 39 responses
    - Top Priority: Shore-side work dock (charge batteries, overnight, light mechanic work etc…)

Community Surveys (cont'd)

- City Survey
  - No survey performed yet (short study period)
  - Options:
    1. Survey prior to pilot study
    2. Survey during pilot program after floats are installed

Conclusions & Recommendations

- Implement Pilot Program for at least 2 summers

- Install 6 floats (or more…or less per Council direction)
  - 40' – 50' long
  - 6' wide
  - Performance specs for any type of float (wood, concrete, fiberglass, aluminum etc…)
  - 3 floats using buoy, weight & chain method
  - 3 floats using Helix anchor & Seaflex band method (or hybrid)
  - Sea lion deterrents

Conclusions & Recommendations

- **$248,000** Estimated Total Cost (conservative)
  - **$210,000** ($35,000 x 6 floats – variable)
    - Floats
    - Anchor system (weight, chain & buoy, and Helix/Seaflex)
    - Underwater "Pull Test" (test anchoring systems)
    - Installation
    - Contingency
  - **$20,000** (Engineering – fixed)
    - Design floats
    - Prepare bid package
    - Respond to bidders questions
    - Implement "Pull-Test" program
    - Respond to contractor's questions
  - **$18,000** (Sea Lion Deterrents @ $3,000 x 6 floats – variable)

Conclusions & Recommendations

- Place floats in multiple mooring fields
- Survey users & community during and after pilot project
- Post pilot project
  - Report to Council
  - Remove floats (Store? Sell? Continue program?)
  - Restore permittee's mooring equipment

Next Steps

- June 10: City Council Study Session
  Proceed? If so:

- Mid-July 2014: Prepare plans & contract documents
- Early August: Bid package released
- Late September: Bid opening, Council award
- December/January: Floats installed

- January 2015 to September 2016:
  - Pilot project (2 summers)

For More Information:

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