RECOMMENDED PRIORITY OF SF MARINA HARBOR REPAIRS Prepared by SF Marina Harbor Association May 11, 2006

Purpose: to ensure a safe functional Marina now and in the years leading up to the planned renovations. After evaluating the condition of safety and deferred maintenance in the Harbor and discussing these with Harbor staff, the Directors of the Association hereby submit these recommendations to the SF Recreation and Park Department.

<u>PHASE I</u>: Repairs needed on an emergency basis as these pose a serious life safety hazard and/or a substantial risk to property

Specific breakdown to follow

- 1. Ramps: Structures, Flotation support and Gates
- 2. Piles: Broken/Rotten
- 3. Docks/Fingers: Broken Structures
- 4. Dock Lighting: Non-functioning, intermittent
- 5. Electrical: Improper Connections and Cords
- 6. Dock Planks: Rotten, broken, loose, nails protruding, nails missing,

<u>PHASE II</u>: Repairs needed soon and on an ongoing basis – items which also constitute a risk to persons and property but of a somewhat lesser nature than those in Phase I

- 1. Items blocking docks and fingers
- 2. Water Connection access hatches broken
- 3. Tie rings securing vessels rusted, broken or missing
- 4. Dock edging, bumpers loose or missing

A **Marine Engineer** should approve design specifications for all Phase I item repairs and follow up to see the work is performed to accepted standards.

We request to be included in the in the process of determining the best approach to expedite the work; Harbor Staff, RPD Maintenance Crews or outside contractors where appropriate.

Respectfully submitted by "Nuts and Bolts Committee":

Bill Palmer

Bright Winn

Approved by the Board of Directors

Bruce J. Stone, President See attached Phase I Repair Recommendations

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PHASE I REPAIR RECOMMENDATIONS;

1 - DAMAGED RAMPS AND GATES

The damage listed below constitute a serious life safety hazard and need to be addressed immediately!

RAMP STRUCTURE:

SEVERE DAMAGE - OLD REPAIRS FAILED - REPLACE RAMPS

• Gates 4 14 19

SERIOUS DAMAGE – REPLACE OR REPAIR RAMPS

• Gates 25 6 8

FLOTATION UNDER RAMP LANDINGS:

• Gates 25 10 14 17 33 #327

OTHER DAMAGE TO RAMPS

- Heavy Electric Utility cables bearing on one side is causing significant damage to most ramps: Remove electric cable and support independently.
- Left handrail very loose: Gate 3 Add new lower post
- Weak support under deck: Gates 2 11a 10 Provide additional framing under deck
- Inappropriate use of plywood strips for foot traction on ramp and plywood ramp decks not painted or sealed: Gates 16 11a 10 Replace plywood strips with fir sealed with penetrating epoxy prior to installing Seal decks with penetrating epoxy and or paint with appropriate exterior or marine enamel with non-skid or similar product.
- Some damage to lower end of ramp stringer: Gates 23 33 Monitor wear, repair if it worsens

Closers: Many are inoperative. Gates 4 6 8 9 10 14 15 are very dangerous, with heavy gates Repair or replace as needed. Inspect quarterly for proper operation.

Gate Numbers: Many unreadable – Repaint, preferably with larger numbers.

A map identifying Gate locations should be posted on the Bulletin Board near the Harbor Office

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2 - ROTTEN/DAMAGED PILES

The damaged piles addressed below are a serious safety hazard to persons and property that need to be mitigated immediately.

EAST HARBOR

SLEEVE (or otherwise repair by approved method):

- 1. All broken piles
- 2. All piles which have been reduced by 50% or more in diameter in any area

WEST HARBOR

SLEEVE (or otherwise repair by approved method):

- 1. All broken piles
- 2. All piles which have been reduced by 70% or more in diameter in any area.
- 3. All piles reduced by 50% or more where adjacent pile has similar damage
- 4. All piles in high surge area (outer west and just inside it) which have been reduced by 50% or more.

EAST & WEST HARBORS:

- Some piles require sleeving due to wear from significant misalignment. The collars securing these piles should be relocated to prevent wear by rebuilding the end of the dock or finger to center the pile prior to sleeving.
- All damage piles which are not to be sleeved according to the above specifications should be identified. Harbor staff should inspect and re-evaluated these piles every six months.

3 - DOCKS/FINGERS: BROKEN STRUCTURES

• Repair as per approved Marine design –consult Marine Engineer as needed

4 - DOCK LIGHTING: NON-FUNCTIONAL, INTERMITTENT

• Repair (gate 14 work order incomplete since 1/06)

5 - ELECTRICAL: IMPROPER CONNECTIONS AND CORDS

• Enforce existing rules

6 - DOCK PLANKS:

Rotten, broken, loose, nails protruding, nails missing

 Replace broken/rotten planks. Consider long cleats sistered on frames to provide new nailing surface. Consult Marine Engineer