

September 26, 2017

Town of Chilmark
401 Middle Road
PO Box 119
Chilmark, MA 02535
Attn: Board of Selectmen

INRE: Menemsha Basin Bulkhead Electrical Equipment Survey Report

Scope: Inspect all existing electrical power distribution and marina electrical support equipment. Report existing conditions, identify dangerous conditions, and provide suggestions for improvement or upgrades

Note: Since the time of all electrical equipment installations that serves the west end of the transient dock to the south end of the commercial fisherman's bulkhead, Electrical Codes that govern the installations have changed and therefore have created current noncompliance issues. While much of the existing installed is preexisting and nonconforming, most equipment was in compliance at the time. Much of what now raises safety concerns are born more of damage, corrosion, and general deterioration.

TRANSIENT DOCK

Floating Docks

- Overall condition of marine pedestals and fire extinguisher boxes are good. Annual inspections and subcomponent equipment should be replaced as needed. (Example) marine receptacle twist-lock outlets, circuit breakers, photocells, lights should be replaced as needed

Fixed Dock Section

- Same as above with the exception of bonding of floating sections which are not applicable

PARKING LOT AREA BULKHEAD

- Steel bulkhead should be permanently bonded back to Main Distribution Equipment located adjacent the Harbor Master's shack
- Existing marine pedestals themselves in poor condition
- Wood pedestal supports should all be replaced
- New electrical distribution feeders should be installed

Commercial • Industrial • Residential

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FUEL / COMMERCIAL FISHING BULKHEAD

- Steel bulkhead should be permanently bonded back to Main Distribution Equipment
- Existing marine pedestals in poor condition
- New electrical distribution feeders should be installed, to service marine pedestals
- Perimeter and steps from bulkhead to dock should have improved illumination installed

MAIN DISTRIBUTION PANEL

- Existing Main Distribution Panel extremely deteriorated
- Per article 555.12 (Demand Factors for shore Power Receptacles), service size existing (320amp) is undersized and feeder circuits that feed all existing sections mentioned above are all undersized
- While the existing Datum Plane 555.2 would be in compliance, the 100 year flood plane would not

RECOMMENDATIONS

- Relocate Main Distribution Equipment to an elevation at least 10' above mean high tide
- Upgrade Electrical service to meet code requirements. Calculation to be determined (at least 600amps)
- Upgrade feeders to Transient Dock (MDP) and Bulkhead Pedestals