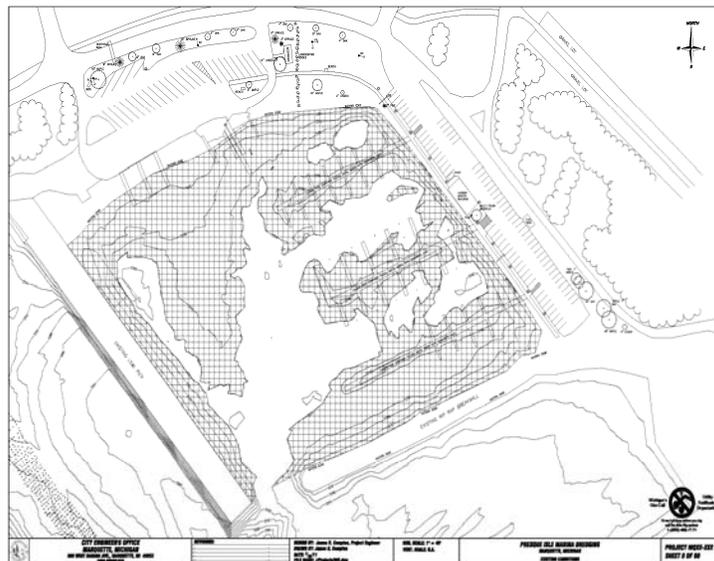


Presque Isle Marina

Project Plan Discussion

October 9, 2012



Background

- The AECOM report was published in February 2010 that provided the City with an eight phase Presque Isle (PI) renovation plan. The first five phases were approved by the City Commission, and subsequently approved by the Michigan Department of Natural Resources – Waterways Commission.
- The City has submitted to the State and US Corps. of Engineers, construction permits to include Phase I (dredging/demolition of south pier) and Phase II (boat launch renovations).
- The City has submitted grant applications to the Michigan Department of Natural Resources (MDNR) Waterways for Phase I and Phase II. Phase I has been funded and approved by the City Commission
- In the fall of 2011, when the City made the plan operational, the City engineers determined that the Phase I plan, as permitted, could result in damage to the permanent pier structures.
- In December of 2011, the City staff presented its findings to the Parks and Recreation Advisory Board, Presque Isle Advisory Committee and Harbor Advisory Committee. These actions announced to the public the challenges in engineering to the permit specifications.

Background

- At the January 2012 regular Harbor Advisory Committee meeting significant discussion took place regarding the priorities and future of the Presque Isle Marina.
- In February 2012, the Harbor Advisory Committee presented its annual report to the City Commission which included the new findings and concerns regarding the Presque Isle Marina. At that meeting the Commission approved a motion to task the Harbor Advisory Committee with evaluating the Presque Isle Marina project: “It was moved by Commissioner Stonehouse, supported by Commissioner Niemi, and carried unanimously to request that the Harbor Advisory Committee review the Presque Isle Marina Project and provide a report to the City Commission on its findings.”
- The Harbor Advisory Committee conducted meetings throughout March 2012 to evaluate the project. Presque Isle Concerned Citizens (PICC) and other public entities provided significant input. Staff was available to provide technical assistance and information. The engineers reviewed the engineering data and challenges in detail in addition to the public safety concerns.

Problem Statement

The scope of work within the permitting for the original plan has significant potential to undermine the pier structure in their deteriorated condition.

Findings

- Engineering - regarding dredging sand does not appear to be migrating into marina from under the LS&I Pier
 - The shallow sand southwest of the boat launch has been there for decades and was probably never dredged.
 - The shallow sand problem near boat launch is becoming worse because Lake Superior water level is near an all-time low.
 - Some sand is likely entering the marina in the east corner when storms wash over or through the break wall. This area is isolated and small.
 - Depth problems near the piers can be mostly attributed to the delta of rock and gravel spilled from within the bins wall piers as a result of their corroded sides.
 - Minor sand migration has occurred and shifted some within the marina; however overall it does not appear as though the marina is experiencing significant migrating sand shoaling.

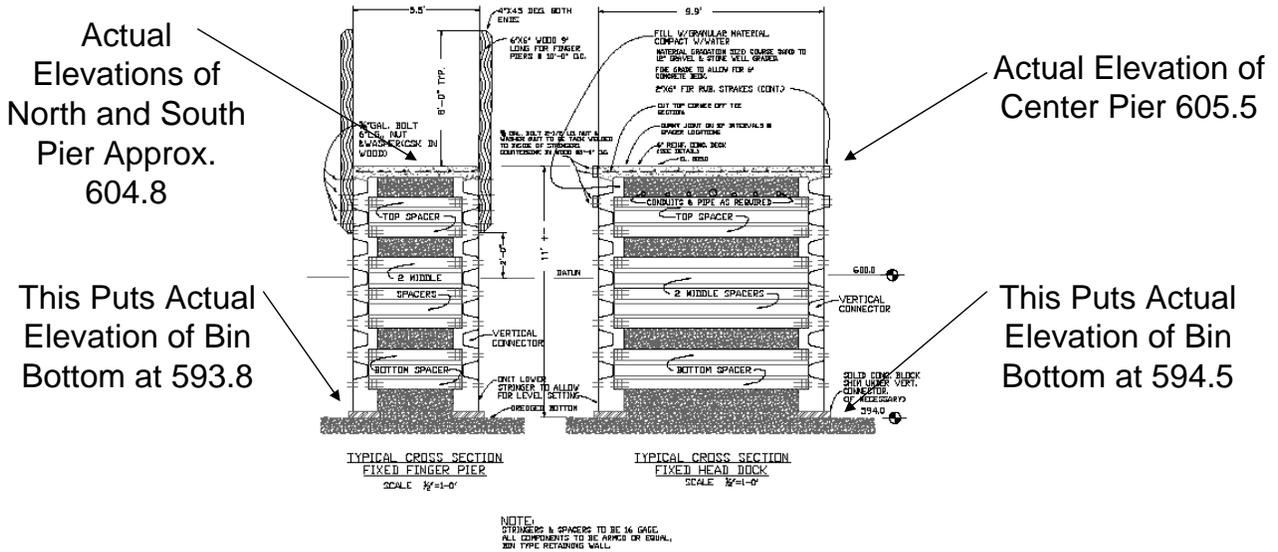
Findings

- Funding: Due to State funding appropriation, funding for Phase I can be amended to include other tasks within the eight phase project.
- Additional:
 - Pier structures are in dire condition and utilities need to be monitored.
 - Navigation problems are due to declining Lake Superior water levels.
 - Gravel from failed bin walls has created a delta which creates navigational hazards.



Dredging Depth

- Current Permit Requests Dredging to Elevation 593
- Lake level on December 1, 2011 was 600.9



Existing Fixed Piers

- Hollow Metal Bins
 - Severely corroded at waterline.



North Pier



South Pier



Fixed Bin Piers

- Fixed piers have also settled and twisted.



Abandoned South Pier



Fixed Finger Pier

Settlement Inside Pier

- Loss of material has caused damage.

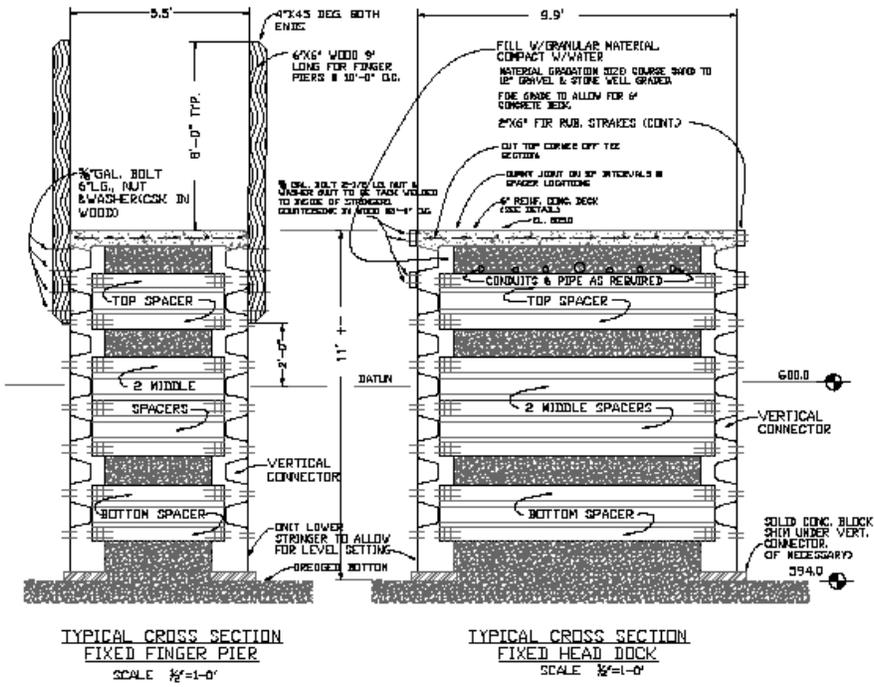
Light Pole Bases
Have Dropped
and Sheared
Wires.



Pipes Inside Bins
Have Broken. Repair
Areas Can Be Seen.



Existing Fixed Pier Sections



NOTE:
STRINGERS & SPACERS TO BE 16 GAGE.
ALL COMPONENTS TO BE ARMCO OR EQUAL,
NON TYPE RETAINING WALL.

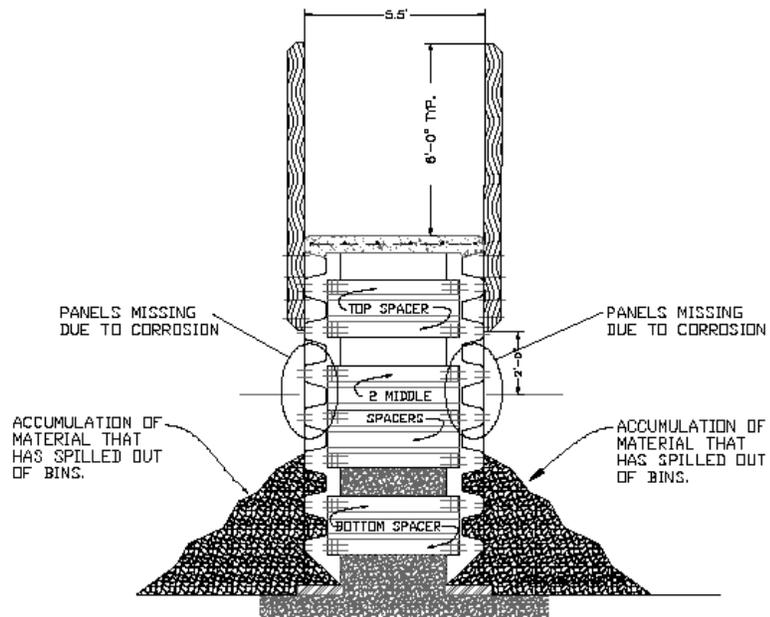
Existing Fixed Piers

- Hollow Metal Bins
 - Originally filled with sand, gravel and rocks
 - Severely corroded near waterline
 - Open on the bottom

Panels gone and
sand and gravel
has spilled out

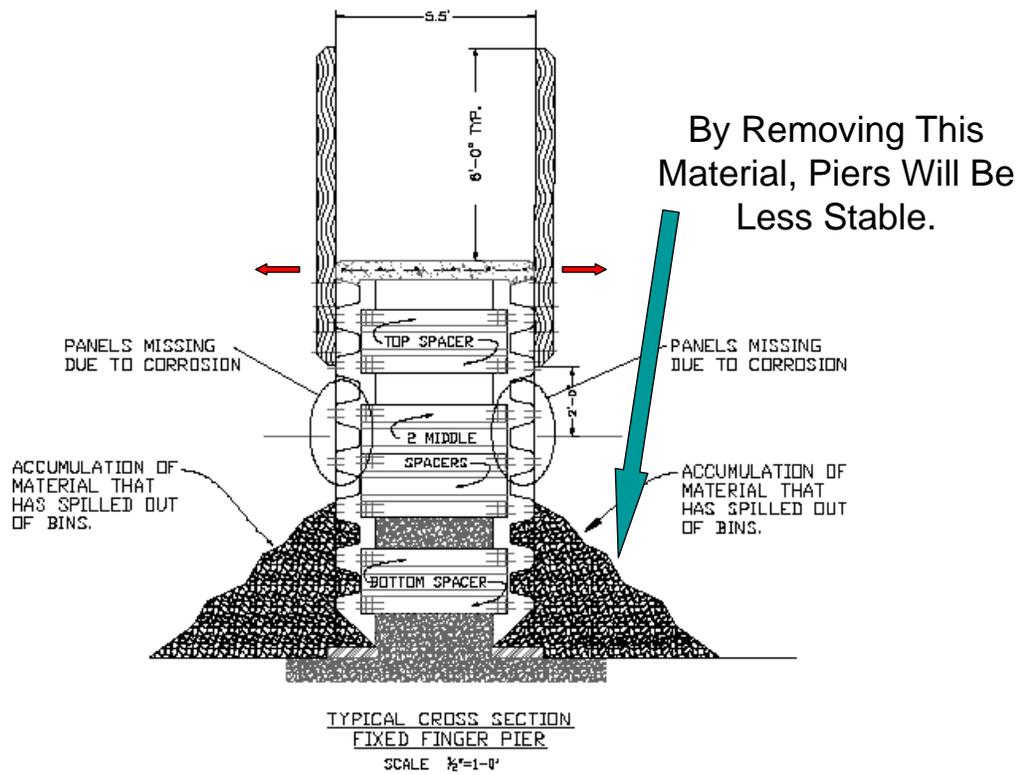


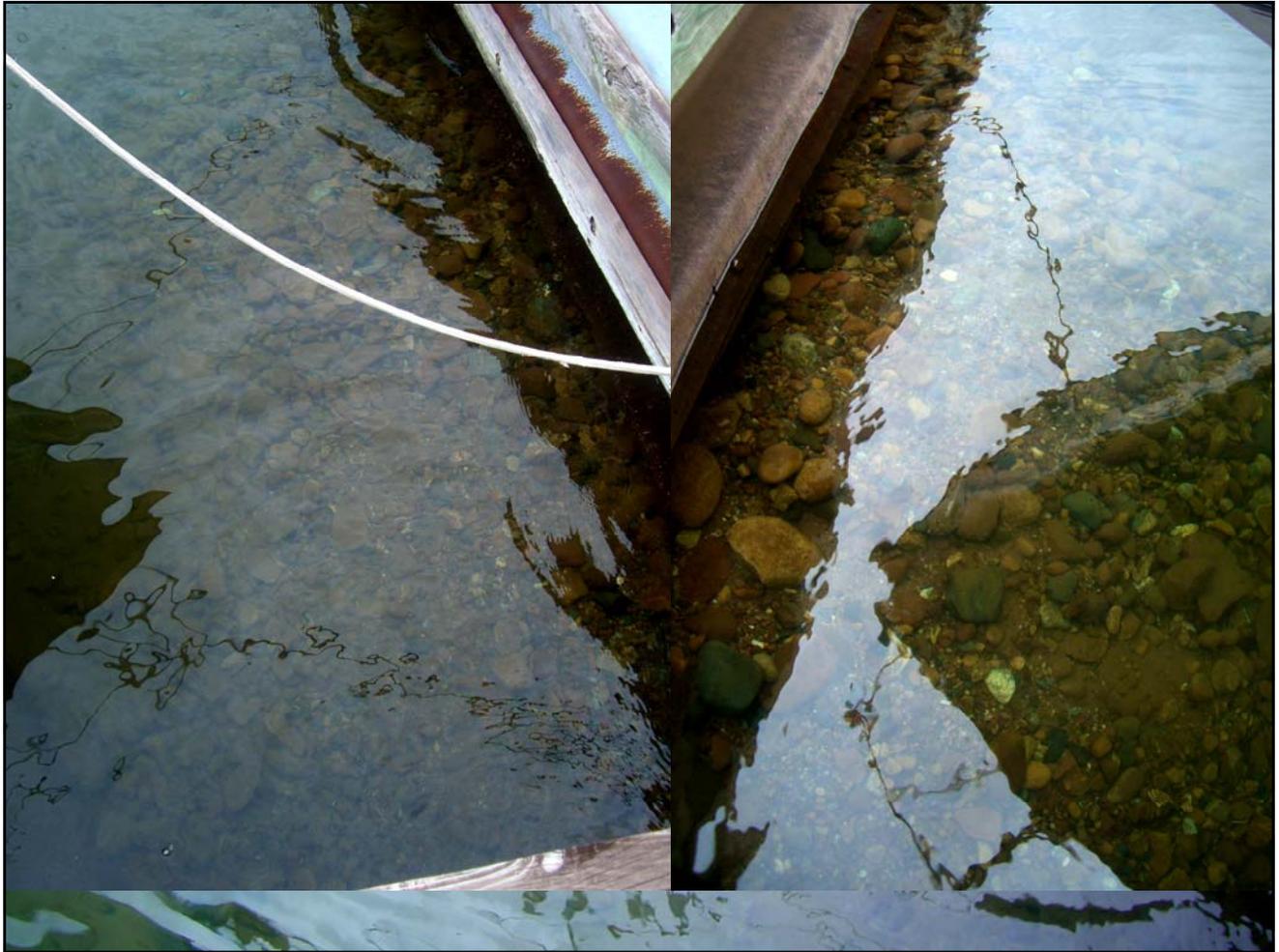
Fixed Pier Today



TYPICAL CROSS SECTION
FIXED FINGER PIER
SCALE 1/2"=1'-0"

Stability of Fixed Piers





Issues

- In considering a recommendation, the Harbor Advisory Committee based its decision on:
 - **Public safety:** There is a potential for collapse of the piers. The instability of the piers present issues with electrical, fuel, and sewage systems.
 - **Environmental Impact:** Potential of fuel and sewage spill into the marina.
 - **Funding Impact:** We are already funded for Phase I and are permitted for Phase II. The rephrasing of the project, and adjustment of the original plan, could decrease and/or delay the funding from the State.
 - **Longevity and sustainability:** The Parks and Recreation Master Plan emphasizes the maintenance of current facilities and resources. Public input included the concern that the Presque Isle Marina could be closed due to its continuing deterioration.
 - **Potential disruption of current marina slip holders:** Future plans should consider minimizing the displacement of the Presque Isle Marina slip holders during the reconstruction phases.

Recommendation

- The changes include limiting dredging to two specific areas within the marina.
- Demolition of the south pier for Phase I.
- Phase III will only include replacing the south pier.
- Phase V to include the middle pier demolition and repair.
- Phase II and IV are the same as provided in earlier approved plans.
- Total project cost is anticipated to be increased by an estimated \$425,000 with this recommendation.

Recommendation

	Original Five-Phase Plan		Recommended Five-Phase Plan	
Phase I	Dredging	\$490,978	Dredging (triangle) and removal of the south pier (dredge in the south pier area until you run out of money)	\$490,978
Phase II	Boat Launch	\$402,256	Boat Launch	\$402,256
Phase III	South Pier	\$628,978	Replace South Pier	\$452,136
Phase IV	North Pier	\$481,131	Remove and Replace North Pier	\$481,131
Phase V	Breakwater	\$464,672	Remove and Replace Middle Pier	\$1,034,713

Funding

The Committee acknowledges that the recommended plan requires an additional estimated \$425,000 of capital expense, and that this may obligate the City for an estimated \$212,500 in additional expenses beyond the original plan. Due to this projected increase in additional expense, the Harbor Advisory Committee, in conjunction with the City staff, will review and propose a funding strategy for these additional costs.

Questions