

# SCOPE OF WORK

28 February 2000

CASE NO. 133  
Green River Lake - Site Improvements

CELRL-OP-TO

## PROBLEM:

Current shoreline configuration does not allow ready access to water by campers and boaters.

## LOCATION:

The project is located at Green River Lake, Campbellsville, Kentucky.

## SCOPE OF WORK:

### HOLMES BEND

- 1 At the end of existing dike adjacent to the Marina at Holmes Bend, remove approximately 20 cubic yards of existing riprap, to a dumpsite designated by project personnel, at lake level 670.5 for pier installation. Note: Some of the existing material to be removed may be needed to provide for foundation fill. **Form and pour an 18' x 18' x 6.5 high pier, approximately 78 yards of 4000PSI mix. Note: Top of concrete pier will have an exposed aggregate finish and all concrete should be wet cured.** Remove forms then backfill as necessary to form a minimum 3 ft. wide access path across top of existing dike.
- 2 Install 4" by 12" pressure treated wooden bumper along top of pier 3 sides, 54 LF, and fasten with stainless anchor bolts, see bumper sketch. Counter bore holes to make bolt heads flush or below surface of wooden beams. See sketch for details.
- 3 **Install 7 ea. stainless boat cleats, McMaster Carr P/N 33805T22 or equal, with 2½" x ¼" dia. stainless anchor bolts. Place a cleat at each corner and one cleat centered between corner cleats on lake side of dock and on each side.**

- 4 At the boat ramp's 6" x 6" curb, area marked by project personnel, cut through and neatly remove a 36" wide section of curb, 2 places, for future sidewalk access. Remove debris to a reservation dumpsite.

#### PIKES RIDGE

1. Adjacent to the ramp at Pikes Ridge in the area indicated by sketch, clear area of existing riprap and excavate 6' x 36' footprint area at lake level 670.5 for concrete pier. Remove approximately 26 cubic yards of base material to dump site as specified by project personnel. Layout and remove an additional 7 cubic yards of material for a 3' wide walkway from end of pier to an access point at launching ramp, approximately 40', to be identified by project personnel. Cut through and remove a 36-inch wide section of 6" x 6" curb at launch ramp to prepare for sidewalk entrance. **Form and pour 6' wide x 36' long x 6.5' high pier, approximately 52 yards of 4000PSI mix. Note: Top of concrete dock will have exposed aggregate finish and all concrete should be wet cured. Remove forms then form and pour 3' wide concrete walkway, approximately 40' long using approximately 9 yards of 4000PSI mix, with exposed aggregate finish on top surface flush with top of pier on one end and terminating at the sidewalk access cut and flush with existing ramp, all concrete should be wet cured and have a ½" expansion joint material between dock and sidewalk. Note: Form around existing concrete drain to allow water to continue to drain. To avoid frost heave, sidewalk base should be 2' below ground level. Strike control joints at approximate 6' intervals in sidewalk. Remove forms and backfill as necessary.**
2. Place **4" by 12"** pressure treated wooden bumper along the lake side of pier flush with top of pier, 36 LF. Secure with ½" by 8" long stainless steel bolts see enclosed sketch for bumper details. Counter bore holes to allow bolt heads to be flush or slightly below surface of wood.
3. **Install 8 ea. stainless boat cleats, McMaster Carr P/N 33805T22 or equal. with 2½" x ¼" dia. stainless**

**anchor bolts. Place a cleat at 3 corners and equally spaced along lake side of pier, 5 additional places.**

4. At two additional locations at Pikes Ridge specified by project personnel, Note: Quantities must be doubled for second location, excavate for 6' wide by 36' long courtesy piers down to Lake Level 670.5, remove approximately 26 cubic yards of base material, see project personnel for dumpsite. It may be necessary to displace some existing riprap, which can be used to backfill behind piers. **Form and pour 6' wide x 36' long x 6.5' high pier, approximately 52 yards of 4000psi mix. Top surface will have exposed aggregate finish and all concrete should be wet cured. Remove forms and backfill as necessary.**
5. Place **4" by 12"** pressure treated wooden bumper, 36LF, along the lakeside of pier flush with top cap. Secure with  $\frac{1}{2}$ " by 8" long stainless steel bolts see enclosed sketch for bumper details. Counter bore in bumper to allow bolt heads to be flush or slightly below surface of wood.
6. **Install 9 ea. stainless boat cleats, McMaster Carr P/N 33805T22 or equal. with  $2\frac{1}{2}$ " x  $\frac{1}{4}$ " dia. stainless anchor bolts. Place a cleat at 4 corners and equally spaced along lake side of pier, 5 additional places.**

SITE #1

1. Adjacent to the ramp at Site #1 in the area indicated by project personnel, remove or displace approximately 6.5 cubic yards of base material at lake level 670.5 for 18' by 18' dock and an additional 10 cubic yards for 3' wide sidewalk footing. **Form and pour 18' x 18' by 6.5' high concrete dock, approximately 78 yards of 4000 psi mix. Top surface of dock will have exposed aggregate finish and all concrete should be wet cured.** Remove forms from dock then form and pour solid 3' wide sidewalk from dock, flush with top of dock surface back to approximately 1 foot past waters edge at normal summer pool of 675.0 approximately 45 LF, Note: 4" of concrete should be above ground at shore termination point and base for sidewalk should be 2 ft below ground level, approximately 22.5 yards of 4000psi mix. Top surface

of sidewalk should have exposed aggregate finish and all concrete should be wet cured. Strike in control joints at approximate 6' intervals. Remove forms and backfill as necessary.

2. Install 4" by 12" pressure treated wooden bumpers along 3 sides of concrete pier flush with the top of concrete cap, approximately 54LF. Fasten to concrete pier with stainless steel ½" by 8" anchors see bumper sketch. Countersink holes to make bolt heads flush or below surface of wooden beams.

3. *Install 7 ea. stainless boat cleats, McMaster Carr P/N 33805T22 or equal, with 2½" x ¼" dia. stainless anchor bolts. Place a cleat at each corner and one cleat centered between corner cleats on lake side of dock and on each side.*

**Rebar Note:** A 12" x 12" square mat of #4 rebar will be placed in top, bottom, ends and sides of docks, piers and sidewalks located 2-3 inches below concrete surface.

MATERIALS:

Bolts

<u>DESCRIPTION</u>	<u>APPROXIMATE QUANTITIES</u>
<i>½" X 8" Stainless Steel anchor Bolts with nuts and washers</i>	<i>129 Ea.</i>
<i>¼" x 2.5 Stainless Steel anchors with nuts and washers</i>	<i>160 Ea.</i>

Boat Cleats

<u>DESCRIPTION</u>	<u>APPROXIMATE QUANTITIES</u>
<i>8" Stainless Cleats, McMaster Carr P/N 33805T22 or equivalent</i>	<i>40 Ea.</i>

Pressure Treated Lumber

<u>DESCRIPTION</u>	<u>APPROXIMATE QUANTITIES</u>
<i>2" X 12"</i>	<i>432 LF</i>

Concrete

<u>DESCRIPTION</u>	<u>APPROXIMATE QUANTITIES</u>
<i>4000PSI MIX</i>	<i>343 CY</i>

Rebar  
DESCRIPTION  
**#4**

APPROXIMATE QUANTITIES  
**16000 LF (5.5 tons)**

SPECIAL REQUIREMENTS

The work must be performed in compliance with EM385-1-1 Safety and Health Requirements Manual, Corps of Engineers.