

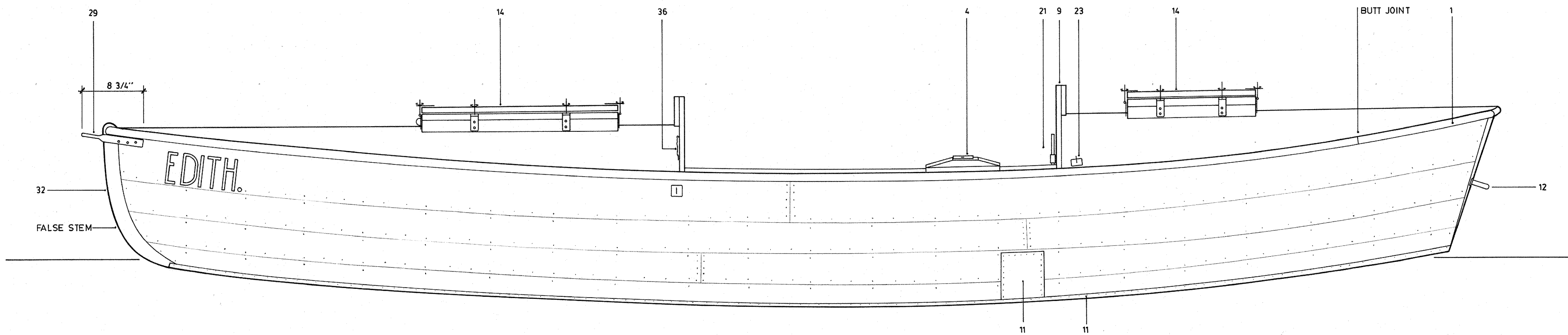
GALLOWAY TYPE CATARACT BOAT EDITH
Grand Canyon Boats
Grand Canyon National Park
Grand Canyon
Coconino County
Arizona

HAER AZ-71
AZ-71

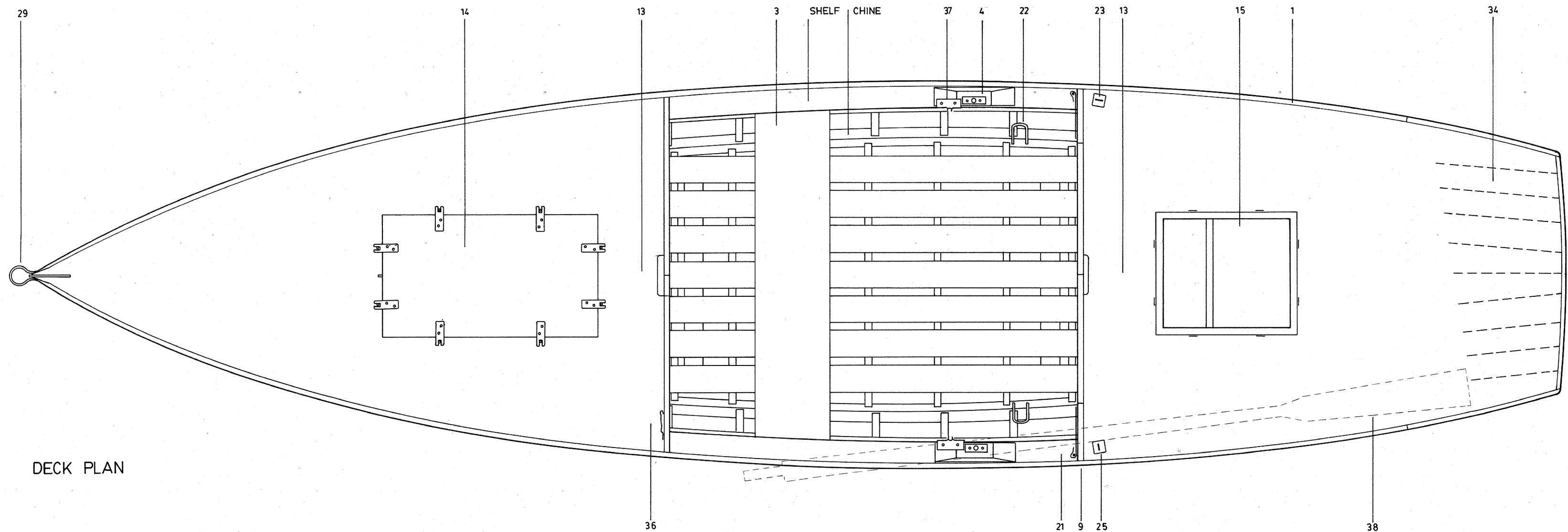
PHOTOGRAPHS

REDUCED COPIES OF MEASURED DRAWINGS

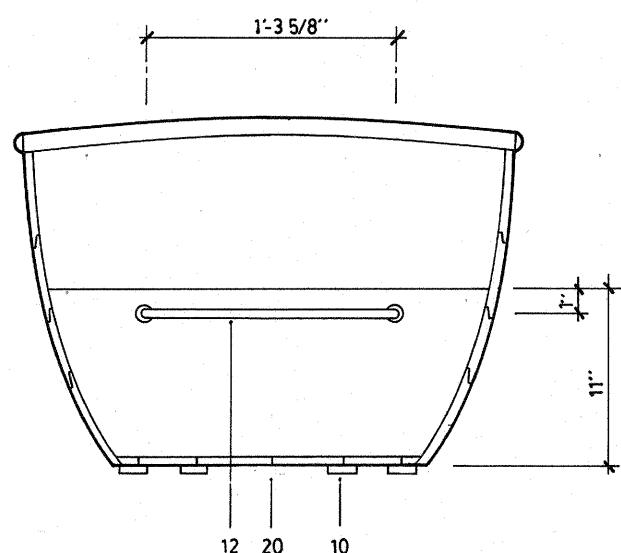
HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001



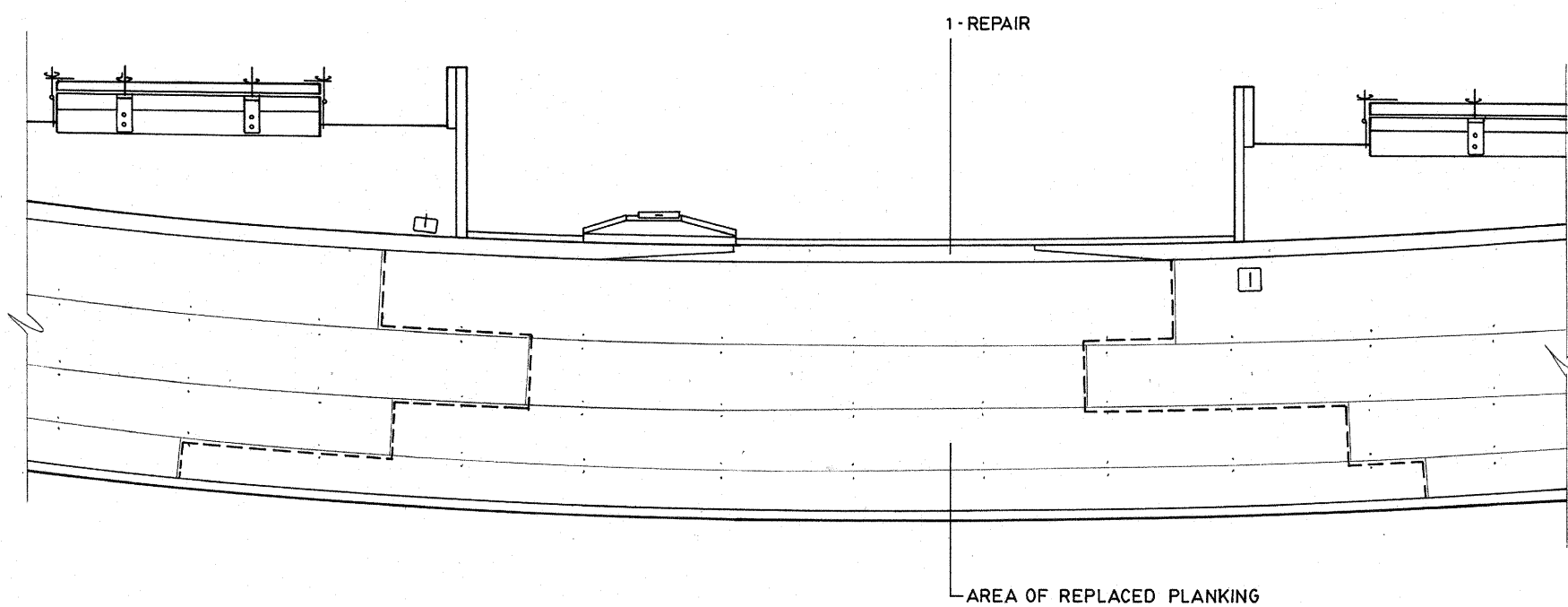
PROFILE



DECK PLAN



TRANSOM-PROJECTED



STARBOARD REPAIR DAMAGED IN 1910

NOTES

1. HISTORICAL DOCUMENTS WERE USED TO DEVELOP SOME RECONSTRUCTIONS AND NOTES. SUCH ITEMS ARE MARKED WITH AN * * *.
2. EDITH WAS TO BE FITTED WITH TWO PAIRS OF 8 FOOT WHITE ASH OARS.*
3. EDITH WAS TO BE FINISHED INSIDE AND OUT WITH THREE COATS OF LEAD PAINT.* EXTERIOR PAINT COLOR WAS TO BE "LEAD".*
4. HISTORICAL DESCRIPTIONS OF EDITH'S HATCH COVERS DO NOT MATCH HER AS MEASURED CONDITION. ORIGINAL HATCH WAS CANVAS COVERED.* HATCH COVERS WERE APPARENTLY REPLACED IN 1921 TO MATCH THE BOATS (GLEN #1, #2) OF THE USGS SURVEY.*
5. STARBOARD SIDE "AMIDSHIPS" WAS DAMAGED DURING THE 1910 TRIP. TEMPORARY REPAIRS WERE MADE. THE AS MEASURED CONDITION IS BELIEVED TO BE SUBSEQUENT FINAL REPAIRS.
6. EDITH WAS REPORTED TO HAVE A REMOVABLE SKEG,* BUT NONE WAS OBSERVED.

KEY

- 1 RUBRAIL
- 2 RISER
- 3 THWART
- 4 OARLOCK GRIP AND PAD
- 5 OARLOCK
- 6 FLOOR BOARD
- 7 SHEER CLAMP
- 8 VERTICAL CLEAT
- 9 COAMING/BULKHEAD
- 10 BOTTOM SKID/RUNNER
- 11 COPPER STRIP/SHEATHING
- 12 1/2" DIA. IRON, FOR CARRYING
- 13 BUTT BLOCK
- 14 HATCH, WITH HATCH COVER
- 15 HATCH, HATCH COVER NOT SHOWN
- 16 BOTTOM PLANKING, LIMITED ACCESS FOR MEASURE
- 17 STERN KNEE, NOT ACCESSIBLE FOR MEASURE
- 18 GALV. AIR TANK (ASSUMED FOR BUOYANCY)
- 19 AREA INACCESSIBLE
- 20 SKEG LOCATION, SKEG MISSING
- 21 METAL STRAP AND ROD, FOR SECURING OAR*
- 22 1/4" DIA. IRON, USE UNKNOWN (ALTERATION?)
- 23 PAD EYE, FOR SECURING ROPE HANDHOLDS
- 24 ROPE HANDHOLDS - NOT PRESENT
- 25 OAR REST - NOTCH IN COAMING*
- 26 AIRTANK SUPPORT - MISC. FRAMING
- 27 AREA INACCESSIBLE, PRESUMED TO CONTAIN AIRTANK
- 28 GALV. METAL SHEATHING
- 29 METAL RING/STRAP FOR BOWLINE
- 30 CHINE LOCATION, AS MEASURED
- 31 DECK LOCATION, AS MEASURED
- 32 1/4" BRASS HALF ROUND
- 33 "U" BOLT, FOR SECURING SPAR OAR?
- 34 LAYOUT OF DECK, UNDER CANVAS
- 35 ORIGINAL HATCH COVER WAS COVERED WITH CANVAS*
- 36 WIRE FASTENED TO COAMING, POSSIBLE FOR SECURING SPAR OARS
- 37 SECOND OAR LOCK GRIP, UNDATED ALTERATION
- 38 APPROX. POSITION OF SHIPPED OAR
- 39 APPROX. POSITION OF SECURED SPAR OAR

SCANTLINGS

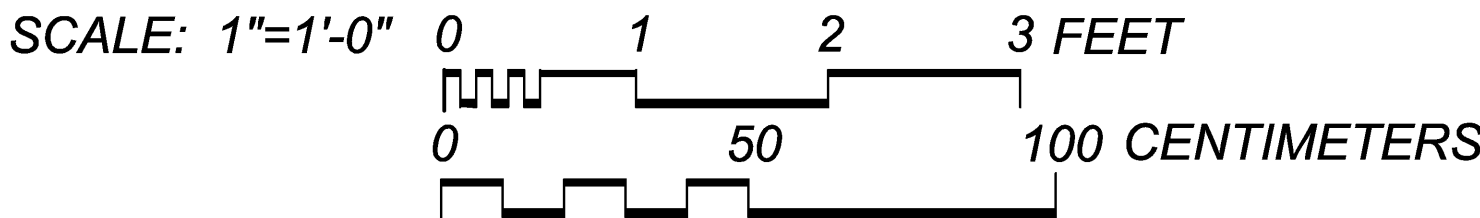
- PLANKING, SIDES - 1/2" WHITE CEDAR
PLANKING, BOTTOM - 5/8" WHITE CEDAR
DECK - 3/8" WHITE CEDAR
FRAMES - 1 1/2" X 7/8" OAK AT ±9" OC
FLOORS - 1 1/8" X 7/8" OAK
CHINE - FROM 2" X 1 3/4" OAK
TRANSOM - CEDAR
STEM - OAK
FALSE STEM - OAK
DECK BEAMS - 1 1/2" X 7/8" OAK
RUBRAIL - 1 1/8" X 1/2" OAK
CLAMP - 2 1/8" X 1 1/8" CYPRESS*
RISER - 1 7/8" X 7/8"
THWART - 7/8"
BULKHEADS - 5/8" WHITE CEDAR
FLOOR BOARDS - 5/8" X 3 1/2" ±5" OC.
BOTTOM RUNNERS - 2" X 3/8" OAK*, LOCATED OVER EACH JOINT
HATCH COVERS (AS MEASURED) - 1" FIR, SINGLE BOARD

FASTENINGS

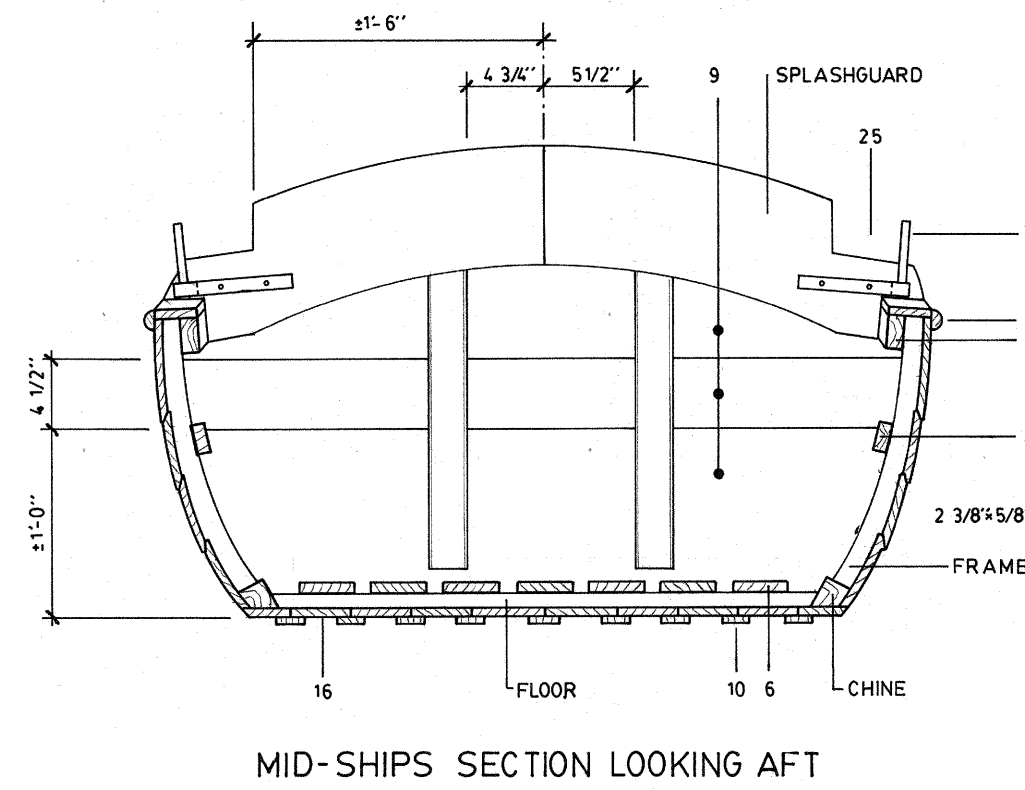
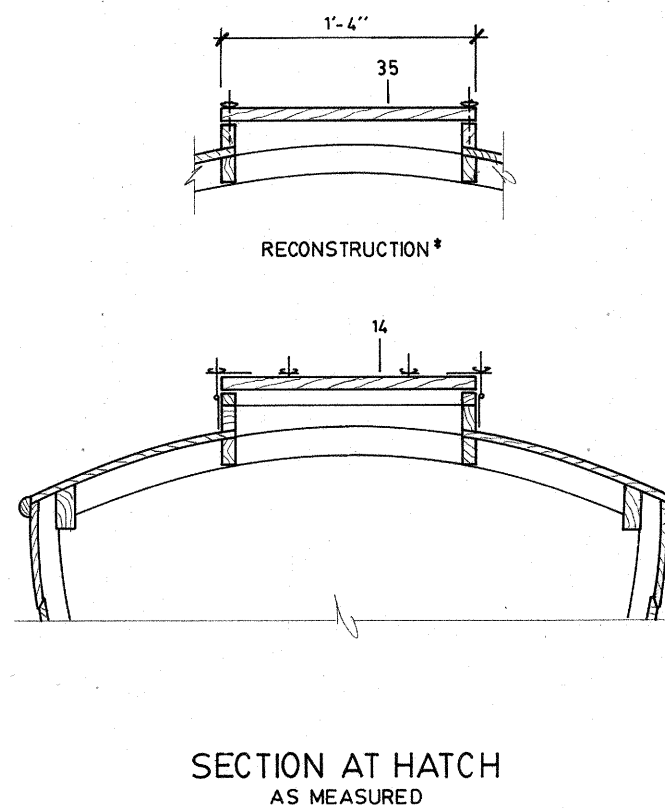
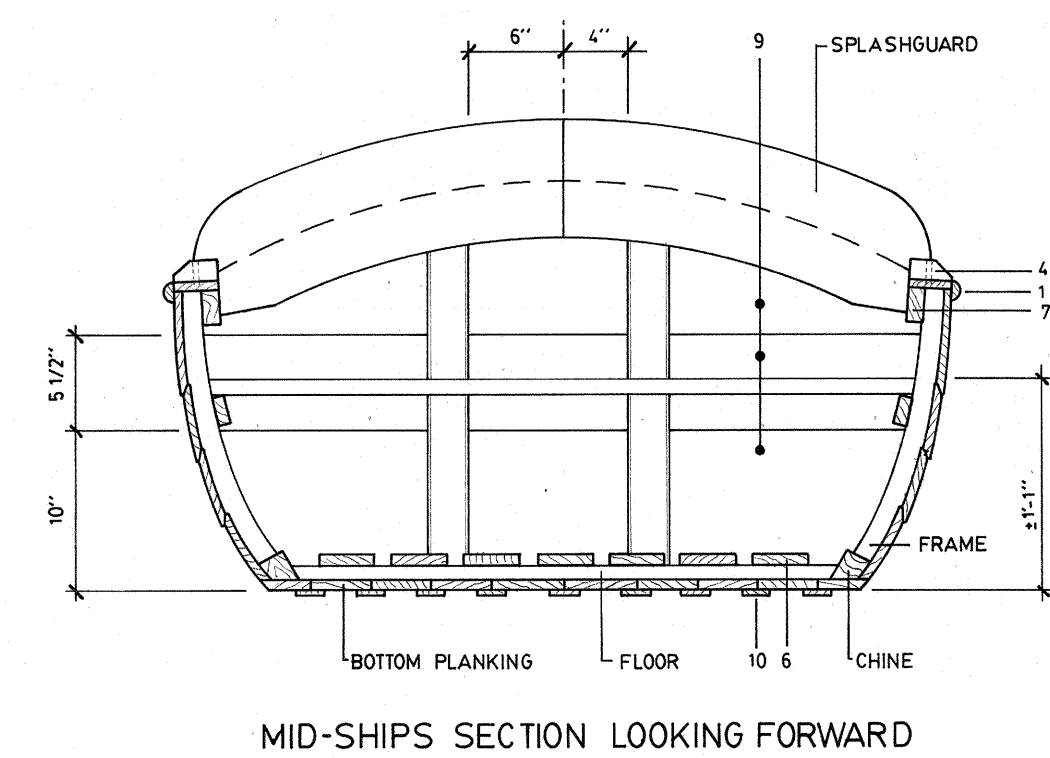
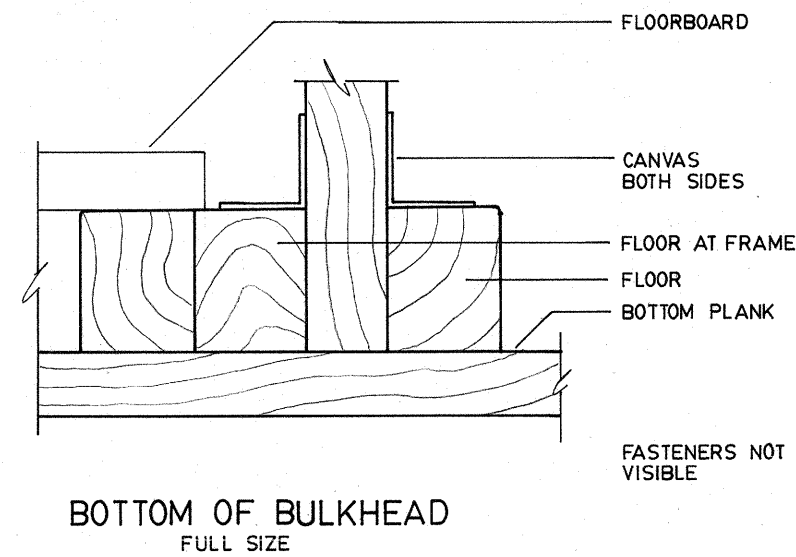
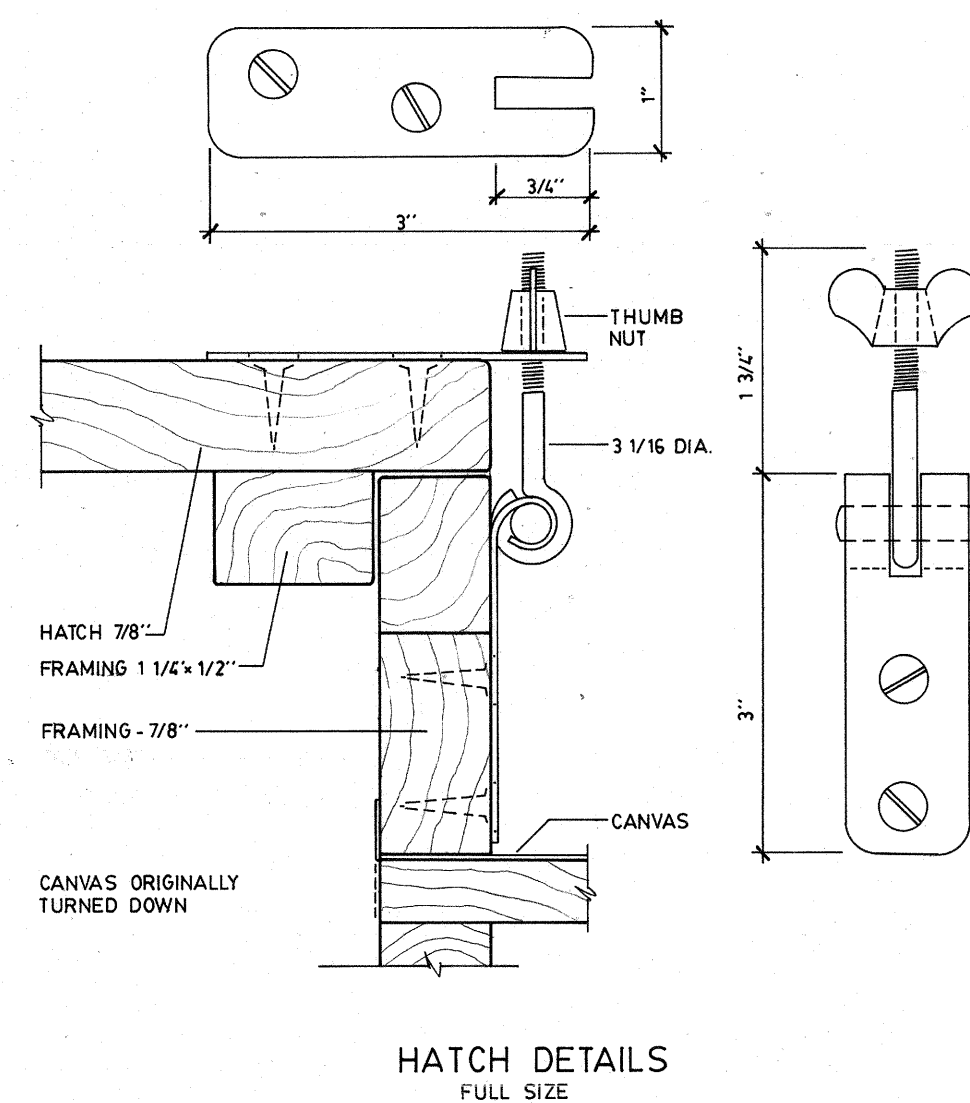
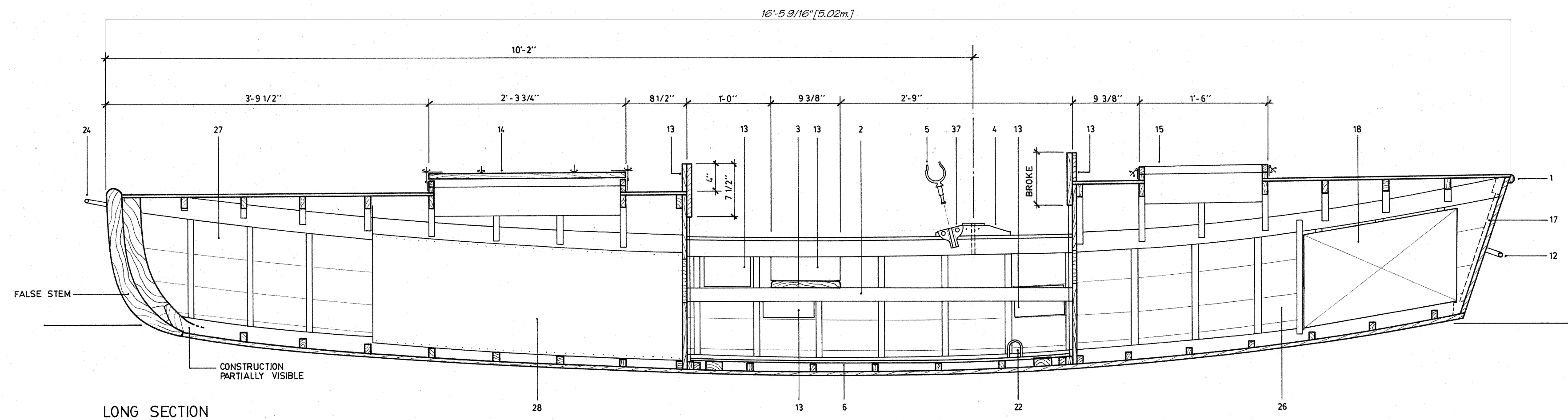
- PLANKING TO FRAMES - BRASS SCREWS*
PLANK TO PLANK - 3 COPPER RIVETS BETWEEN FRAMES*

"EDITH"
GALLOWAY TYPE CATARACT BOAT
BUILT BY RACINE BOAT BUILDING CO., c.1910
RACINE, WI

DRAWN AND DELINEATED BY TODD BLOCH



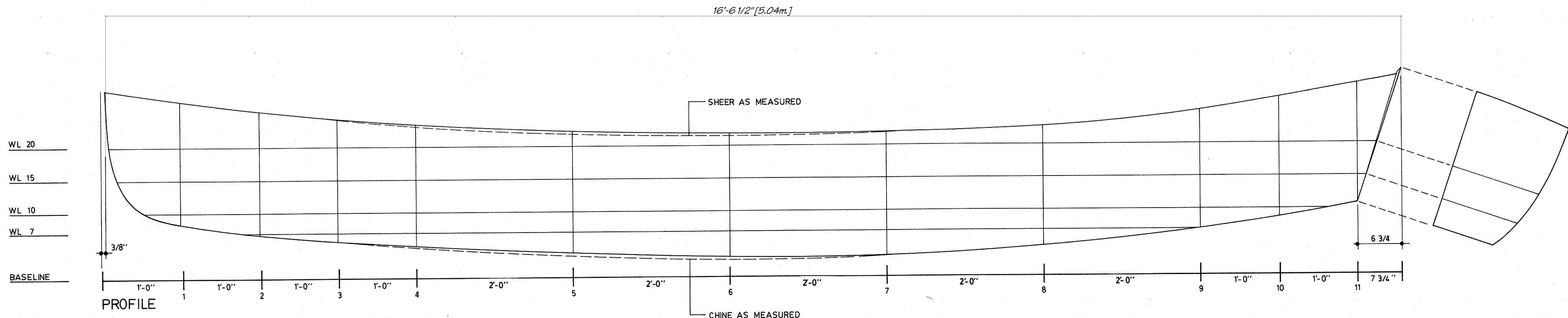
Note: These drawings were scanned from original pencil drawings donated by Todd Bloch and rescaled to the HAER format.



"EDITH"
GALLOWAY TYPE CATARACT BOAT
BUILT BY RACINE BOAT BUILDING CO., c.1910
RACINE, WI
DRAWN AND DELINEATED BY TODD BLOCH

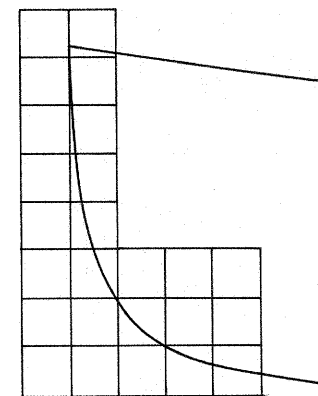
SCALE: 1"=1'-0" 0 1 2 3 FEET
0 50 100 CENTIMETERS

Note: These drawings were scanned from original pencil drawings donated by Todd Bloch and rescaled to the HAER format.

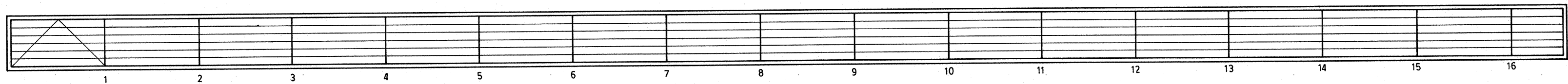


NOTES

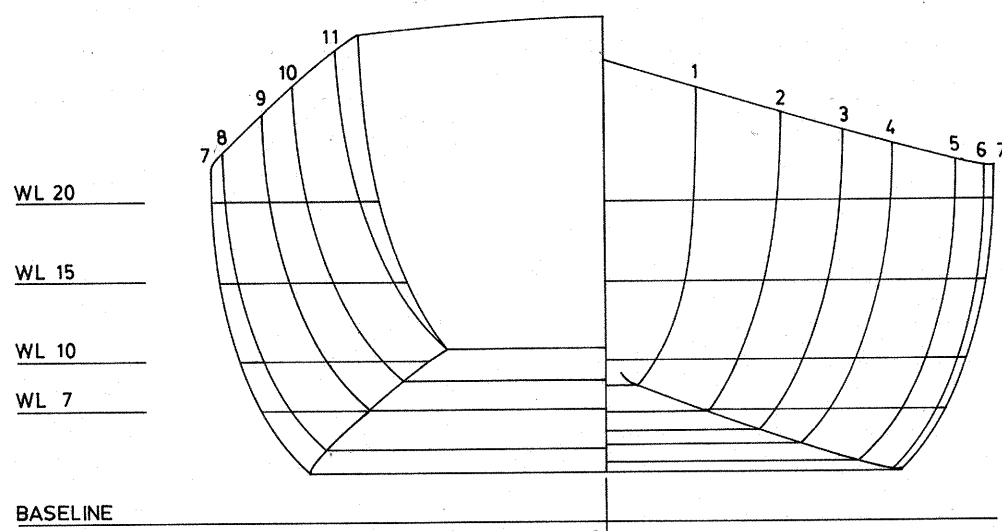
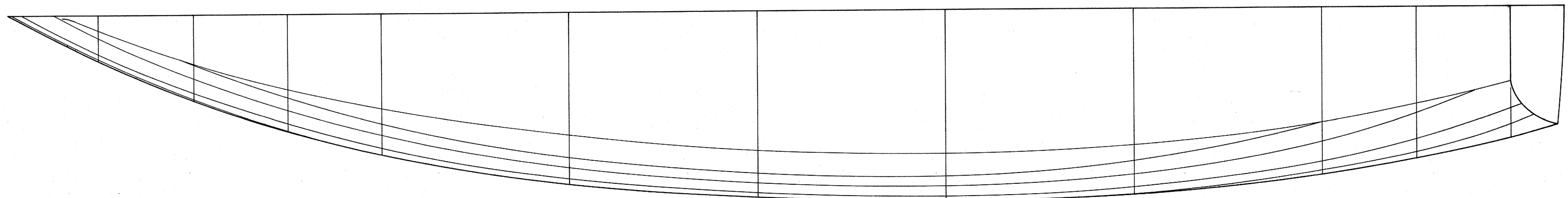
- "EDITH" WAS MEASURED IN HER CRADLE.
- THERE WAS NO INDICATION OF WATERLINE ON THE BOAT. THE SHOWN WATERLINE WAS ESTABLISHED BASED ON HISTORICAL PHOTOS.
- THE MEASUREMENT TEAM FELT THAT EDITH HAD DEVELOPED A SLIGHT REVERSE HOG AND NOTED A TWISTING OF THE STEM AND PARTIALLY COLLAPSED DECK, WHICH WERE CORRECTED IN THESE DRAWINGS. THE AS MEASURED LOCATION OF THE BOTTOM IS INDICATED WITH A DOTTED LINE.



3" SQUARES



HALF BREADTHS PLAN



BODY PLAN

TABLE OF OFFSETS

	Stations	Brw	1	2	3	4	5	6	7	8	9	10	11	Transom
Height Above Base	Sheer	2-4 7/8	2-3 1/4	2-2 5/8	2-0 3/4	1-11 5/8	1-10 4/8	1-10 1/8	1-10 2/8	1-11 0/8	2-1 3/8	2-3 2/8	2-5 3/8	2-6 5/8
	Chine	-	0-8 3/8	0-6 6/8	0-5 5/8	0-4 7/8	0-4 6/8	0-3 1/8	0-3 2/8	0-4 5/8	0-7 1/8	0-8 7/8	0-11 0/8	0-11 0/8
Halfbreadths from Centerline	Sheer	-	0-6 6/8	0-11 1/8	1-3 0/8	1-6 0/8	1-10 0/8	1-11 6/8	2-0 3/8	1-11 6/8	1-8 2/8	1-7 3/8	1-4 7/8	0-3 2/8
	WL 20	-	0-6 5/8	0-10 7/8	1-2 6/8	1-5 7/8	1-8 7/8	1-11 8/8	2-0 3/8	1-11 8/8	1-8 7/8	1-6 3/8	1-3 7/8	1-2 4/8
	WL 15	-	0-6 0/8	0-10 0/8	1-2 0/8	1-5 2/8	1-8 2/8	1-11 2/8	1-10 7/8	1-10 7/8	1-7 5/8	1-5 7/8	1-1 1/8	1-0 3/8
	WL 10	-	0-3 2/8	0-3 2/8	1-0 3/8	1-3 5/8	1-8 0/8	1-10 1/8	1-10 5/8	1-8 2/8	1-5 3/8	1-1 6/8	-	-
	WL 7	-	-	0-6 4/8	0-10 5/8	1-2 0/8	1-6 4/8	1-8 6/8	1-8 2/8	1-7 4/8	-	-	-	-
	Chine	-	0-2 1/8	0-6 3/8	0-8 5/8	1-0 2/8	1-3 6/8	1-5 7/8	1-8 4/8	1-5 3/8	1-2 5/8	1-0 4/8	0-8 6/8	0-8 6/8

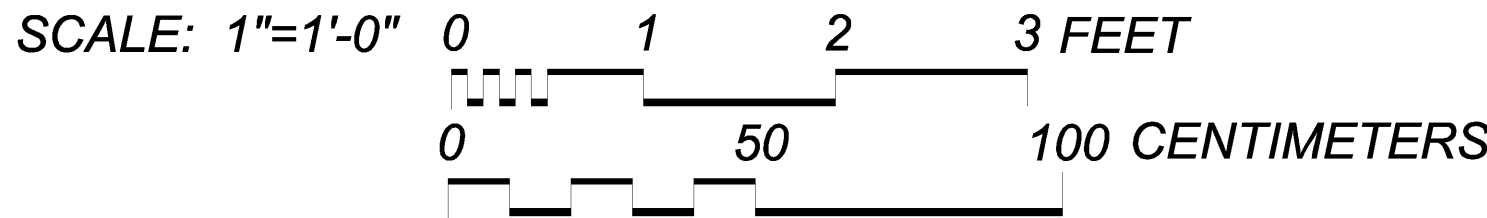
Offsets are in Feet-Inches-Eighths to outside of plank
Stations are spaced from F.P. as noted
F.P. is 0-0-3 forward of stem at Sheer
A.P. is face of transom at Sheer at Center Line
Top of stem is 2-5-0 above base
L.O.A. is 16'-7-3/8

"EDITH"
GALLOWAY TYPE CATARACT BOAT

BUILT BY RACINE BOAT BUILDING CO., c.1910

RACINE, WI

DRAWN AND DELINEATED BY TODD BLOCH



Note: These drawings were scanned from original pencil drawings donated by Todd Bloch and rescaled to the HAER format.

HISTORIC AMERICAN ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

GALLOWAY TYPE CATARACT BOAT EDITH

HAER AZ-71

Grand Canyon Boats

Grand Canyon National Park

Grand Canyon

Coconino County

Arizona

Photos taken while boats were in park curatorial storage.

INDEX TO BLACK AND WHITE PHOTOGRAPHS

Jet Lowe, photographer, 2008

AZ-71-1	3/4 view of port side from bow to stern.
AZ-71-2	3/4 view of port side from stern to bow.
AZ-71-3	Detail of bow from port side. Deck hatch seen at right.
AZ-71-4	Detail of interior, oar locks, and deck hatch.
AZ-71-5	Detail of interior and stern deck hatch.



HAAC 12-71-1



The EDITH - 1871
This Edith boat, named for
Edith's mother, was built by
the Edith family in their shipyard.
The boat is a small wooden
lifeboat, and it was used by
the Edith family for many years.
It is now on display in the
museum.

MSK 42-71-2



4404C A2.11-3



HAAR 22.11.4



HAER A2-71-5