Name of organization IIHR – HYDROSCIENCE & ENGINEERING (University of Iowa)	**Year of information updating** 2020
Year established 1847	**Year of joining the ITTC** 1994 or earlier
Address 300 S. Riverside Drive Iowa City, IA 52242	**Status in the ITTC** Member
Contact details (phone, fax, e-mail) Troy Lyons, Director of Engineering Services troy-lyons@uiowa.edu, 319-335-5319	**Website** **https://www.iihr.uiowa.edu/**

Type of facility Environmental Flume	**Year constructed/upgraded** ~1990
Name of facility IIHR Environmental Flume	**Location** (if different from the above address)

Main characteristics (dimensions of tank/basin/test section; for simulators: full mission, part task or desk top)

- Nominal dimensions of the test section are 10 ft wide x 7.5 ft deep by 63 ft long
- Two 50 HP pumps with VFD drives to provide flows up to 90 cfs
- Glass sidewalls for flow visualization

Drawings of facility

See attachment.

Detailed characteristics (carriages, wave/current/wind generators, instrumentations, etc.)

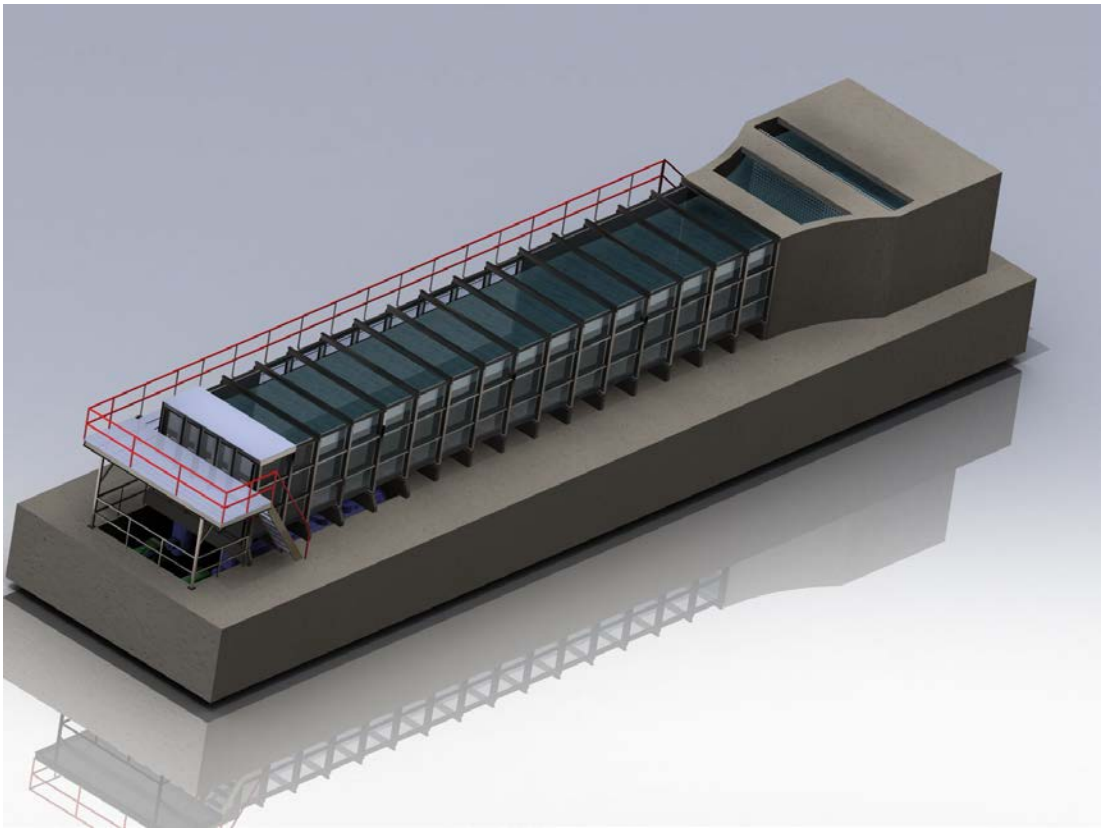
- Fine mesh screens for low-turbulence testing.
- Sediment testing capability.
- Overhead lifting crane.
- 1D, 2D, and 3D laser doppler velocimetry (LDV).
- Particle image velocimetry (PIV).
- Acoustic doppler velocimetry (ADV).
- Pressure transducers, load cells, water level sensors.

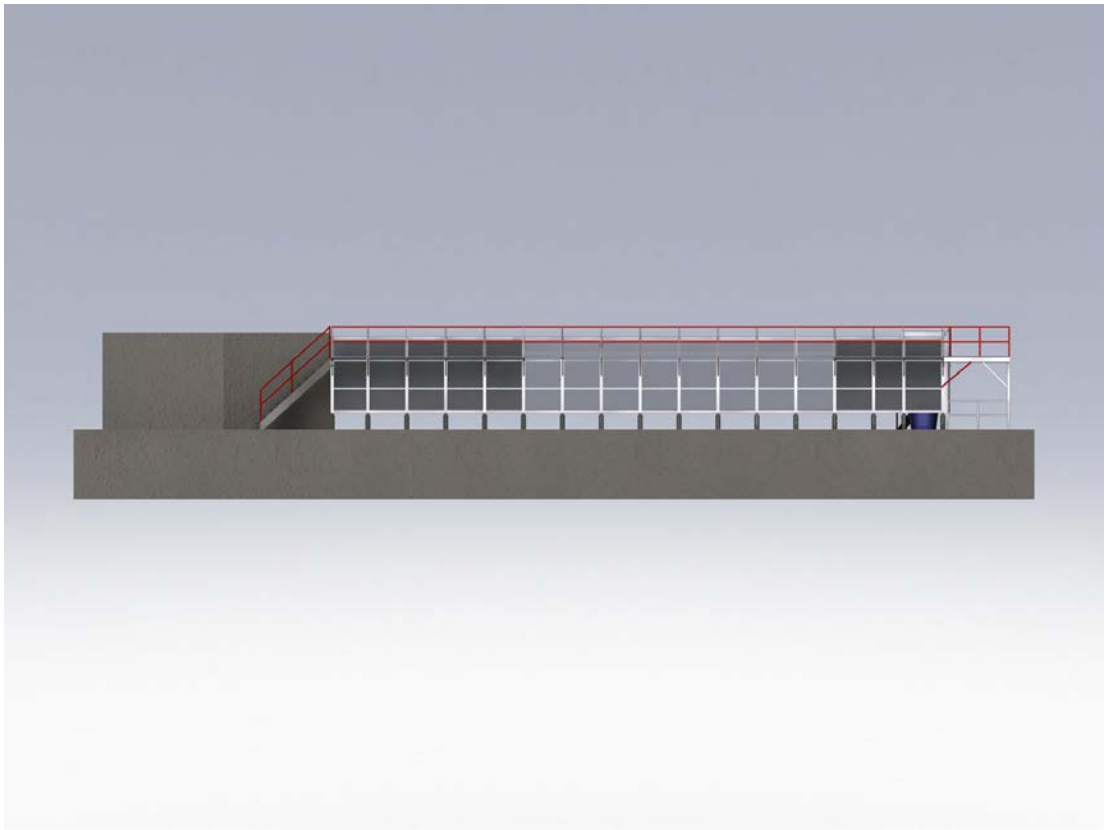
Applications (Tests performed)
Basic research studies.

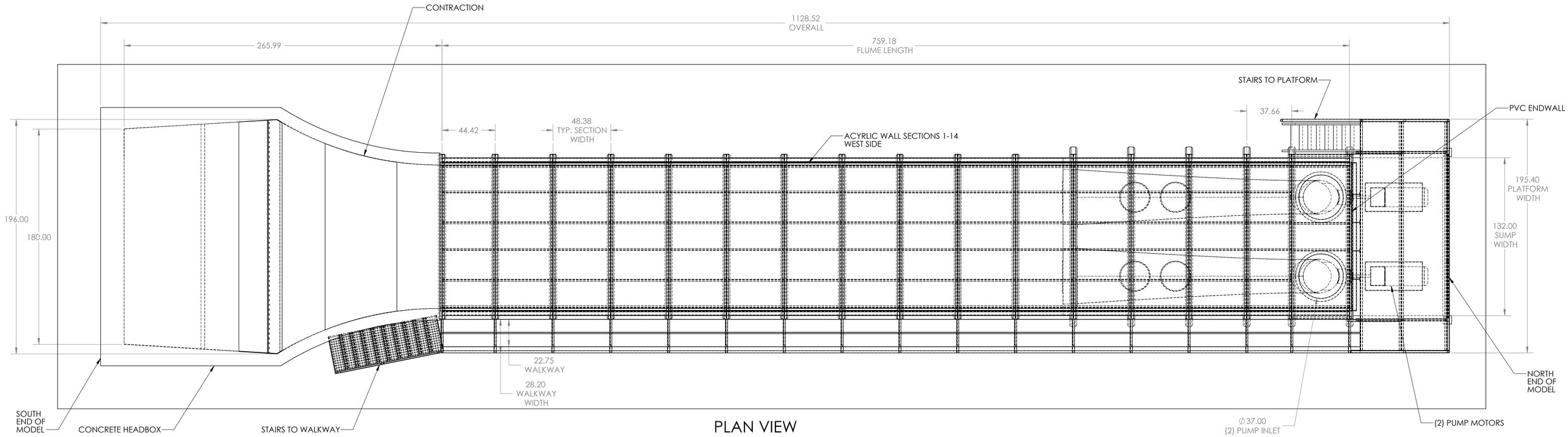
Examples of testing:

- Spillway gate operations and flow ratings.
- Stilling basin performance optimization.
- Scour around bridge piers and abutments.
- PMF scour potential downstream of spillways.
- Flow balancing of fine mesh screens.
- Vibration analysis of fish exclusion screens.
- Vortex shedding analysis from ships.

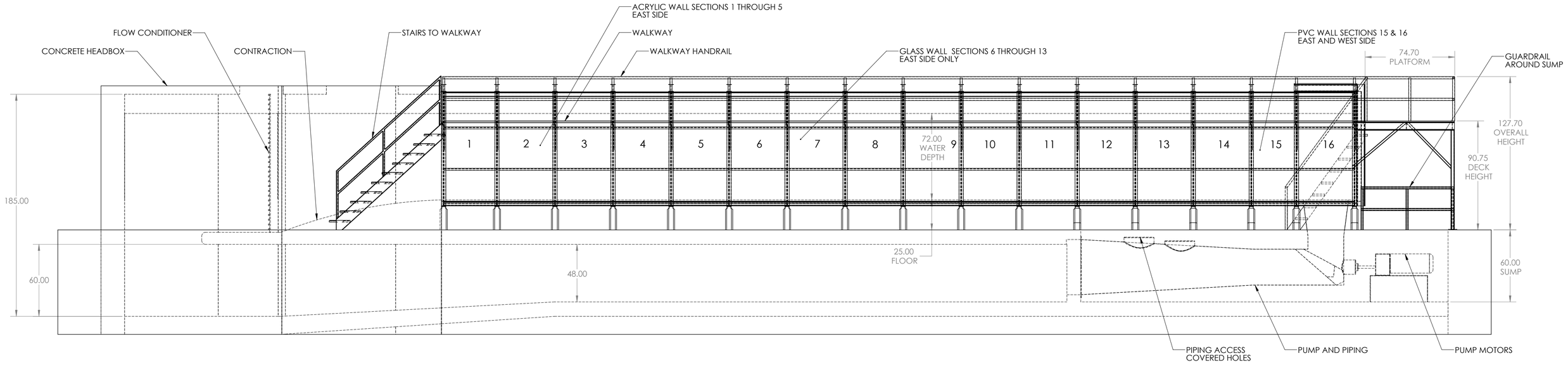
Published description (Publications on this facility)







PLAN VIEW



ENVIRONMENTAL FLUME
SCALE 1:40

	NAME	DATE
DRAWN	BEN	11/18/10
CHECKED	TCL	
ENG APPR.		
MFG APPR.		
Q.A.		

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
FINISH
NEXT ASSY | USED ON
APPLICATION
COMMENTS:

IIHR - HYDROSCIENCE & ENGINEERING

TITLE: EVIRONMENTAL FLUME

SIZE	DWG. NO.	REV
D	Environmental Flume	

SCALE: 1:40 WEIGHT: SHEET 1 OF 2

REV
D Environmental Flume