STRUCTURE 47B

This structure is a double-barreled corrugated metal pipe culvert, located on Canal 19 at the downstream side of the A.C.L. Railroad crossing of that canal, which is about 1.7 miles north of the U.S. Highway #27 bridge over the canal. Control is effected by remotely or manually operated sluice gates on a reinforced concrete head structure.

PURPOSE

This structure maintains optimum upstream water control stages in Canal 19; it passes the design flood from the C-19 basin north of S-47B (50% of the Standard Project Flood) without exceeding the upstream flood design stage and restricts downstream flood stages and channel velocities to non-damaging level; and it permits releases from Lake Okeechobee during dry periods to meet agricultural water requirements in the area served by C-19 southerly from the structure.

OPERATION

The structure is operated to meet either the flood or low water conditions as follows:

Flood Conditions

The gates are operated to discharge excess flows so long as the tailwater does not exceed 15.0 feet.

Low Water Conditions

The gates are operated to meet downstream water requirements, and to maintain the upstream optimum water level of 13.0 to 15.0.

The structure can be operated automatically.

High Range: 15.4 / 15.0 / 14.6

Low Range: 13.4 / 13.0 / 12.6

FLOOD DISCHARGE CHARACTERISTICS

	Design	
Discharge Rate	250 cfs[1]	400 cfs[2]
		50 % SPF
Headwater Elevation	14.7 feet	15.5 feet
Tailwater Elevation	14.13 feet	15.0 feet

Type Discharge	uncontrolled submerged	uncontrolled submerged

[1] Firm capacity
[2] Downstream conditions allow

DESCRIPTION OF STRUCTURE

Type corrugated metal pipe culverts with concrete head structure

Number of barrels 2

Size of barrels 8 feet diameter

Length of barrels 38 plus or minus feet

Flow line elevation 7.7 feet

Service bridge elevation 25.5

Water level which will by-pass structure 21 plus or minus feet

Gates

Number 2

Type slide gates

Size 8 feet by 8 feet (gate can open only to 6')

Control Remote Computer Control

Lifting Mechanism hand operated, vertical lift, enclosed-gear gate hoists

Control On-site automatic and remote computer control

Date of Transfer: December 13, 1957

ACCESS: from U.S. Highway #27 via spoil banks on C-19

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level upstream and downstream remote digital recorder

Gate Position Recorder remote digital recorder

DEWATERING FACILITIES (per barrel)

Storage _____ Field Station

Type stop logs

Size and Number Upstream and Downstream 20 each, 6" X 6" X 9'8" long