

STRUCTURE G-304 (A-J)
STA-1W, Cell 5 Inflow Structures

Inflow structures G-304 A-J are a series of ten culverts located along the Inflow Canal and serve as inflow control for Cell 5. Flow control is achieved via the combination of weir boxes and vertical lift gates. Each structure consists of a 72-inch diameter X 96-foot long corrugated metal pipe fitted with a weir box (crest elevation 11.25 ft NGVD) and a 72-inch square slide gate on the headwater side and flared ends at the tailwater. Maximum design flows for all G-304 structures is 1,470 cfs (147 cfs per structure) with a headwater elevation of 15.7 ft NGVD.

PURPOSE

The G-304 structures control all inflows to Cell 5 A & B of STA-1W and work in concert with structures G-302 and G-303 to bring EAA stormwater into the project. G-304 A-J are located on the east perimeter levee of Cell 5 and along the inflow canal between G-302 and G-303.

OPERATION

G-304 A-J can only be operated *manually* to provide water to Cell 5 or prevent inflow if project stages are too high. The structure settings are controlled by Operations staff in response to upstream/downstream stages, environmental conditions (storms, drought, etc.), and Operation Plan guidelines. Flow is divided among Cell 5 and the remaining treatment cells by G-303 which lies immediately downstream of G-304J. Additional information is contained in the STA-1W Operation Plan which is revised on a regular basis.

FLOOD DISCHARGE CHARACTERISTICS

	<u>Design</u>	<u>Standard Project Flood</u>
Discharge Rate	1,470 cfs	1110 cfs*
Headwater Elevation	15.7 ft	
Tailwater Elevation	12.7 ft	

*No discharges to Cells 1-4 during SPS or PMS

DESCRIPTION OF STRUCTURE

Number of Gates:	1 (10 total)
Discharge Capacity:	147 cfs (1,470 total)
Design Headwater Elevation:	9.1 - 15.8 ft NGVD
Design Tailwater Elevation:	11.2 - 12.81 ft NGVD
Culvert Invert Elevation:	5.0 ft NGVD
Top of Levee Elevation:	19.0 ft NGVD
Culvert Diameter (in) x Length (ft):	72 in x 96 ft

STATION POWER

Normal: None

Emergency: None

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Telemetry: Stilling wells G-304A,J HW, G-304A TW; Gate position A-J

Staff gauges: HW and TW

Water Quality Monitoring: None

DATE OF ACCEPTANCE INTO SERVICE

January, 1999

OTHER FEATURES

Floating vegetation barrier on HW side of each structure

ACCESS

From S-5A, south along Levee-7 approximately 0.75 miles, turn right (west) at G-302.

From G-310, north along Levee-7 approximately 5.5 miles, turn left (west) at G-250S.

*Must have Area-1 key to access this structure.