NOTES:

1. Provide valve or approved equal between precast segments of the manhole.

2. Place manhole on new compacted (see Exhibit 4-D) base in accordance with specification 02316.

3. For operating nut on larger diameter butterfly valves shall turn centerline to open valve. Above ground and plant valves shall open counterclockwise.

4. For expansion joints, see Exhibit 02502-01.

5. For manholes deeper than 20 feet, provide safety clamping rail (See Exhibit 7-1 thru 7-3 of Exhibit).

6. For joint bonding details at butterfly valves see Exhibit 15-00-00.

7. Adjust manhole and manhole opening to align with valve operator nut for ease of operation.

8. For valves greater than or equal to 24-inch diameter, brackets shall be controlled with clamping rail (See Exhibit 02502-01).

9. Adjust vertical distance of 3 feet (min) from valve centerline for valves greater than or equal to 18-inch diameter.

10. Use encapsulated bolts and polyethylene wrap as a bond breaker between pipe and clink. Climb sump (3"x3" valve) with 3" bell filled in pipe anodes. Pour clink in lift.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS
STANDARD LDWL
BUTTERFLY VALVE AND OPERATOR MANHOLE DETAILS
(NOT TO SCALE)

APPROVED BY: [Signature]
ACTING CITY ENGINEER
HOUSTON PUBLIC WORKS

EFFECTIVE DATE: MAR-20-2016
DRAWING NO: 02502-01