SECTION V

STRUCTURES

## **STRUCTURES**

A. Bridges or other ditch type crossings may be required in order to maintain a smooth flow of vehicular traffic through any given area.

In the event uncertainty exists concerning whether or not a bridge will be required, it is advisable to contact the County Engineer regarding same so that the issue can be resolved while the project is in the planning stage.

- B. All bridges and box culverts to be designed to minimum H20 or HS-20 as applicable load design.
- C. Bridge Widths:
  - Where there are no curbs on approach pavement, the width of bridge face to face of curbs to be out to out distance of approach road pavement edges plus two feet (2') each side, plus walk or walks.
  - 2. Where curbs are on approach pavement, the width of bridge face to face of curbs to same as the distance between curb faces on the approach road.
  - 3. Individual one way traffic bridges on esplanade boulevards shall have one walk on the outside and two way traffic bridges shall have a walk on each side.
  - 4. Bridges of widths covered by condition (1) above are to have four feet (4') clear width sidewalks.

Bridges of widths covered by condition (2) above are to have six feet (6') clear width sidewalks.

- D. All bridges to be of reinforced concrete design unless specific application require other materials and then only at the approval of the County Engineer.
- E. Bridge railings to be of galvanized or stainless steel on reinforced concrete parapet wall.
- F. Galvanized Flex Beam Guard Rails shall be designed and constructed in accordance with the TxDOT Item for this item.
- G. Design and construction shall be in conformance with TxDOT Item 420, "Concrete Structures".
- H. Where culverts are used, the headwall shall be of sufficient height to allow construction of the guardrail and sidewalk at the elevation of the roadway.