Sump Design Criteria

a) Sump Pit Details

.1 Sump pits are to be a minimum of 750 mm (30”) deep, and 0.25 m² in area.

.2 Sump pits are to be fitted with a tightly fitting removable cover.

.3 Sump pits will be constructed of concrete, plastic, or non-corrosive metal.

.4 Locate sumps as close to the basement exterior wall as possible (1.2m max) on the side of the building that provides positive drainage.

.5 Sump pits are to be fitted with an opening to accept a 100mm (4”) drain with the invert of the pipe located above the centre of the sump pits’ height.

.6 Sump pits are to be placed on even, well compacted surface.

b) Foundation Drain (Weeping Tile) Drainage to Sump Pit

.1 Provide a weeping tile collection system around the buildings perimeter tied to a sump pit using a 100mm (4”) pipe which discharges into the side of the pit.

.2 The outside perimeter of the sump pit, if of metal or plastic, is to be filled with clean washed rock 19mm – 25mm (3/4” – 1”) to facilitate good drainage.

c) Sump Pump

.1 Provide a sump pump (column or submersible type) capable of pumping 0 L/m at 3m (10’) of head. The pump is to be connected to an electrical power source (hardwired or by way of an electrical outlet) in accordance with the Electrical Protection Act.

.2 The pump shall be fitted with an automatic on/off level control.

.3 The pump discharge must be a minimum of 32mm (1 1/4”) pipe which is placed under the floor slab and rises up the exterior foundation wall and exits the building. The pipe must be adequately secured to the wall.
.4 The discharge line within the sump must be equipped with the following valves and fittings as per the requirements of the Alberta Plumbing Code:

- A union coupling,
- A check valve located on the downstream side of the union.

.5 Sump pumps discharging to a storm sewer or foundation collector drain must be equipped with a shut-off valve located downstream of the check valve, so that the connection to the main can be isolated for maintenance, etc.
SECTION THRU A-A
N.T.S.

SECTION THRU B-B
N.T.S.

DETAIL OF ANGLE BAR
N.T.S.

ANCHOR ANGLE BAR TO CONCRETE WALL WITH 2-19mm (3/4") BOLTS

DESIGN FINISH GRADE AT BUILDING

MIN 10% SLOPE

MIN 2%

150mm x 150mm x 5mm THK STD STOCK ANGLE BAR
SUMP PIT MAY BE CONSTRUCTED OF:

a.) CONCRETE
b.) CORROSION RESISTANT STEEL
c.) PLASTIC

CODE REFERENCE ON SUMP:
ALBERTA BUILDING CODE ART: 9.14.5.2