

TYPICAL SYSTEMS FOR FOUNDATION DRAINAGE & STORM DRAINAGE (FOR RESIDENTIAL USE ONLY)

The drawing depicts a typical system but there are several similar arrangements that would be equally acceptable.

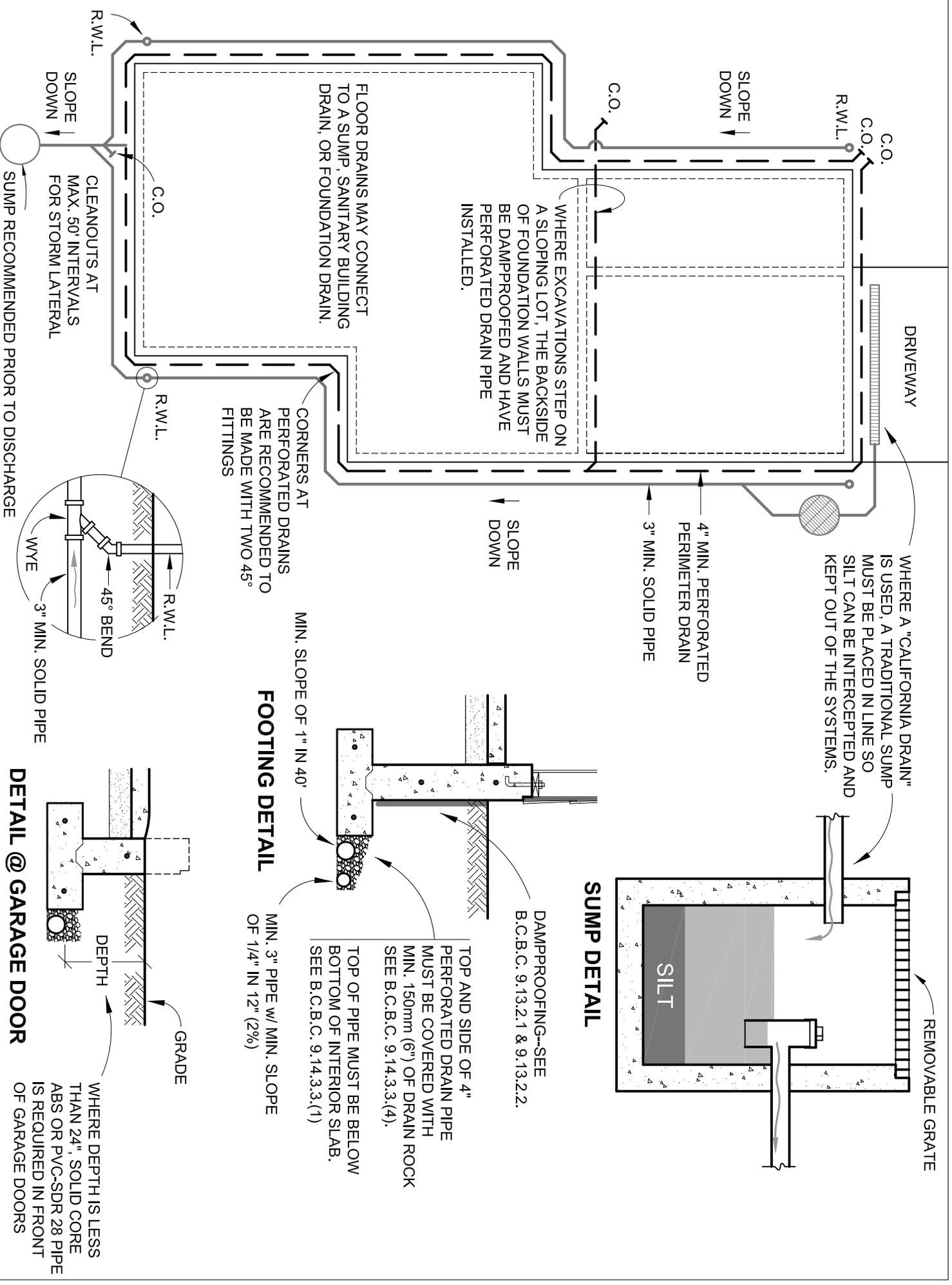
The following are considered acceptable practices:

1. Rainwater Leaders (RWL) must be drained to a storm drainage system of approved piping (not perforated). The piping shall be not less than three (3) inches and shall be solvent cemented and capable of withstanding a test, if required. **NOTE:** Calculations of the area of surface drainage may require larger sizes.
2. The rainwater drainage system shall have a minimum slope of $\frac{1}{4}$ "/foot (1/50) as per the BCBC and should use approved fittings. (Two 45's at bends and wye's and 45's at the connection to leaders, etc.)
3. Foundation drainage, C.S.A. 320 KPA approved, perforated sewer piping, must connect to the storm sewer or rock pit using approved fitting – Y's, etc. The piping should be sloped on (1) inch in forty (40) feet, where possible.
4. Floor drains are required in basements and recommended in crawlspaces. A floor drain requires a 'P' trap and may connect to a sump or sanitary building drain. It can be connected to the foundation drain, when approved, but may require a back water valve.

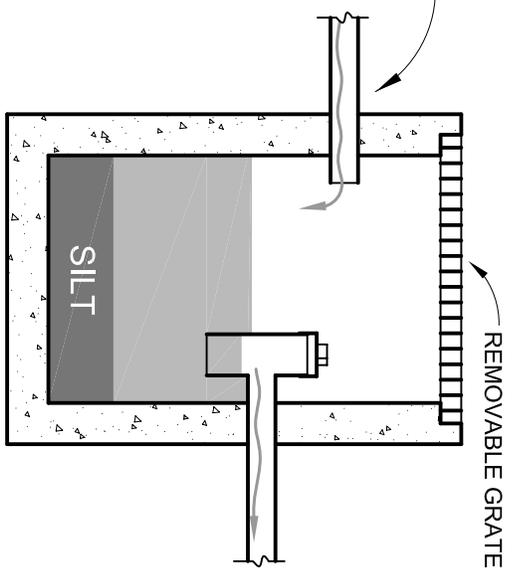
May be applicable – Site specific

5. Driveways and similar surfaces shall drain to the storm drainage system. A sump should be installed in the area being drained. The sump should be adequate to serve as an interceptor and be covered with a grate.
6. If tying into a rock pit or storm drainage system, an interceptor/sump is recommended into which the discharge from the foundation and rainwater drainage is collected.
7. To safeguard against flooding caused by storm sewer surcharging, a backwater valve should be installed on the outlet of the interceptor. The storm drainage going from the RWL should be connected downstream, of the interceptor. Backwater valves must be accessible for servicing.
8. If an interceptor and backwater valve are not installed, a backwater valve may be required on the floor drain, driveway drain and other surface drainage inlets.
9. If big "O" is used for the sub-soil drainage system, it must not be buried more than four feet (4'). Also if it is placed under a driveway it must have a minimum of twenty-four (24) inches of coverage.

SAMPLE DRAIN TILE & SOLID PIPE LAYOUT



WHERE A "CALIFORNIA DRAIN" IS USED, A TRADITIONAL SUMP MUST BE PLACED IN LINE SO SILT CAN BE INTERCEPTED AND KEPT OUT OF THE SYSTEMS.



SUMP DETAIL

DAMPPROOFING--SEE B.C.B.C. 9.13.2.1 & 9.13.2.2.

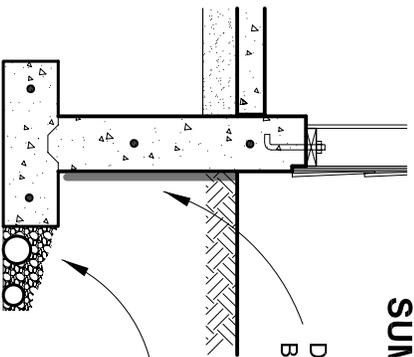
TOP AND SIDE OF 4" PERFORATED DRAIN PIPE MUST BE COVERED WITH MIN. 150mm (6") OF DRAIN ROCK SEE B.C.B.C. 9.14.3.3.(4).

TOP OF PIPE MUST BE BELOW BOTTOM OF INTERIOR SLAB. SEE B.C.B.C. 9.14.3.3.(1)

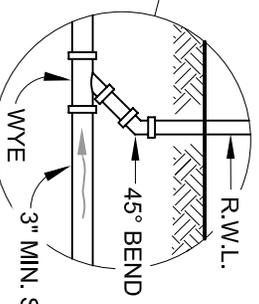
MIN. SLOPE OF 1" IN 40'

FOOTING DETAIL

MIN. 3" PIPE w/ MIN. SLOPE OF 1/4" IN 12" (2%)

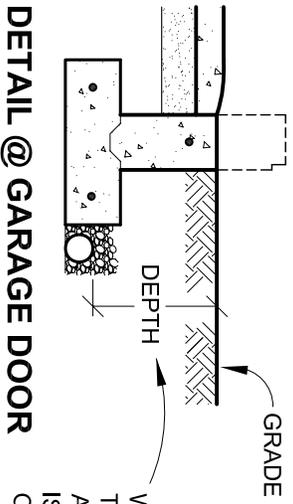


CORNERS AT PERFORATED DRAINS ARE RECOMMENDED TO BE MADE WITH TWO 45° FITTINGS



CLEANOUTS AT MAX. 50' INTERVALS FOR STORM LATERAL

SUMP RECOMMENDED PRIOR TO DISCHARGE



DETAIL @ GARAGE DOOR

WHERE DEPTH IS LESS THAN 24", SOLID CORE ABS OR PVC-SDR 28 PIPE IS REQUIRED IN FRONT OF GARAGE DOORS

FLOOR DRAINS MAY CONNECT TO A SUMP, SANITARY BUILDING DRAIN, OR FOUNDATION DRAIN.

WHERE EXCAVATIONS STEP ON A SLOPING LOT, THE BACKSIDE OF FOUNDATION WALLS MUST BE DAMPPROOFED AND HAVE PERFORATED DRAIN PIPE INSTALLED.

DRIVEWAY

SLOPE DOWN

SLOPE DOWN

4" MIN. PERFORATED PERIMETER DRAIN

3" MIN. SOLID PIPE

C.O.

C.O.

R.W.L.

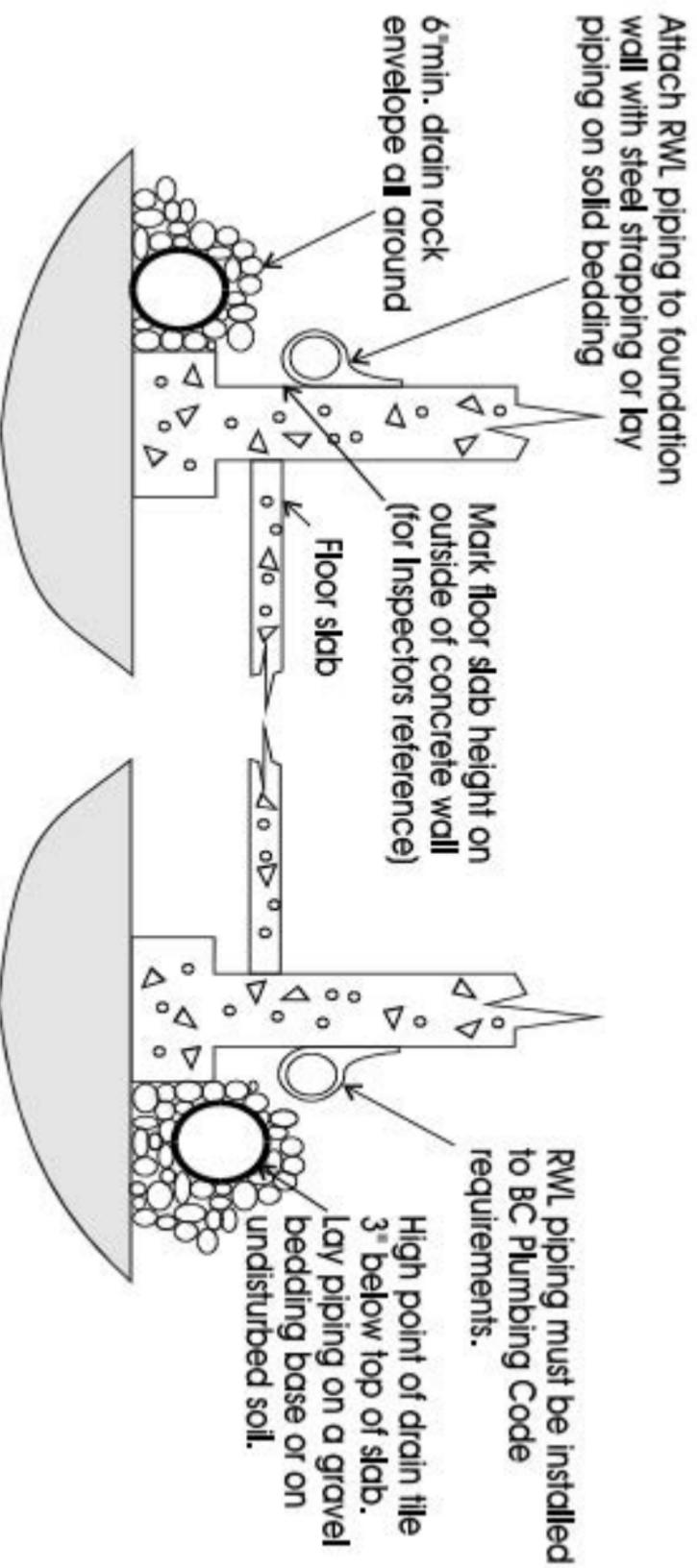
R.W.L.

R.W.L.

45° BEND

SLOPE DOWN

Foundation and Surface Drainage Installation Guide

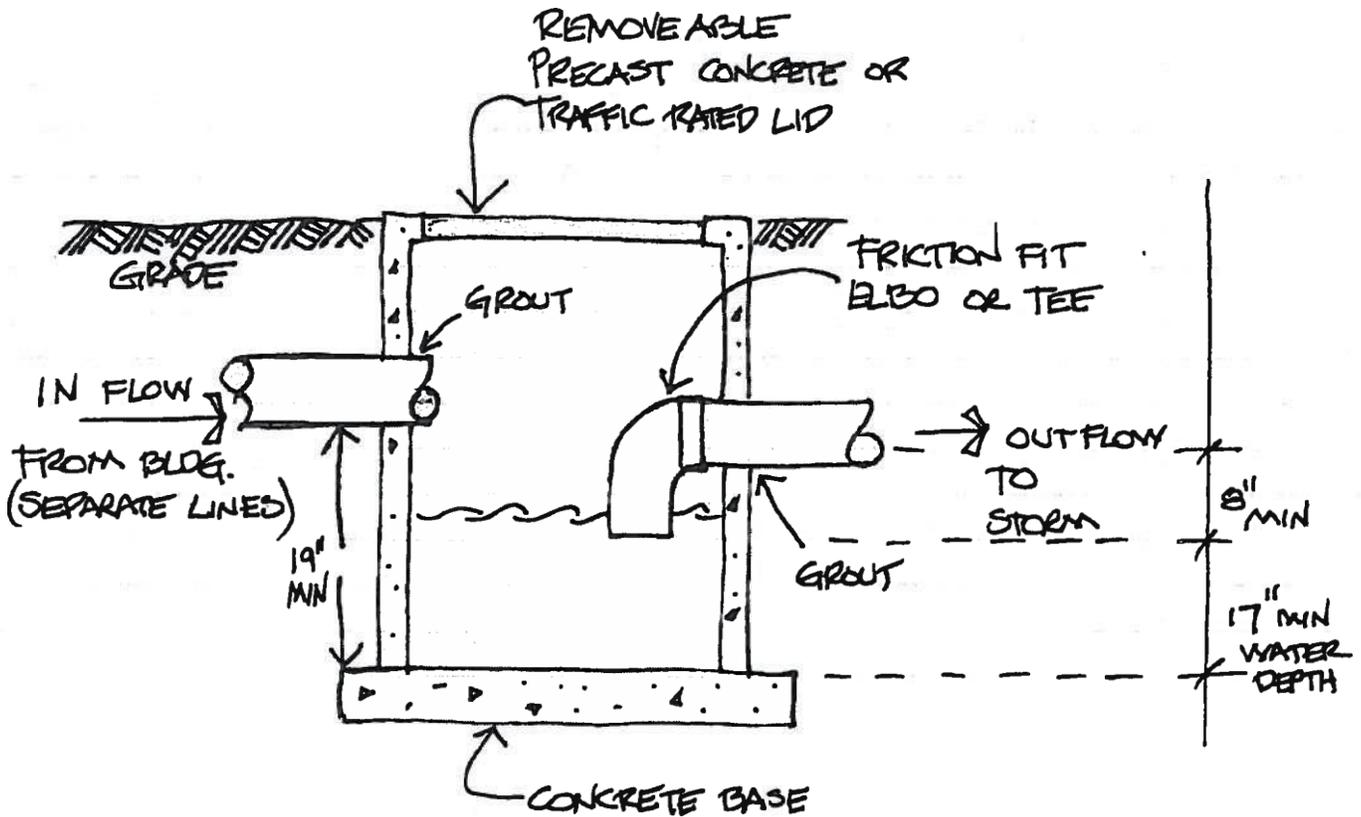


Section thru drain tile and R.W.L.

CATCH BASIN DESIGN

DWG: 001
DEC 2010

SUNSHINE COAST REGIONAL DISTRICT
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CONCRETE SUMP SECTION

24" DIAMETER TO 48"

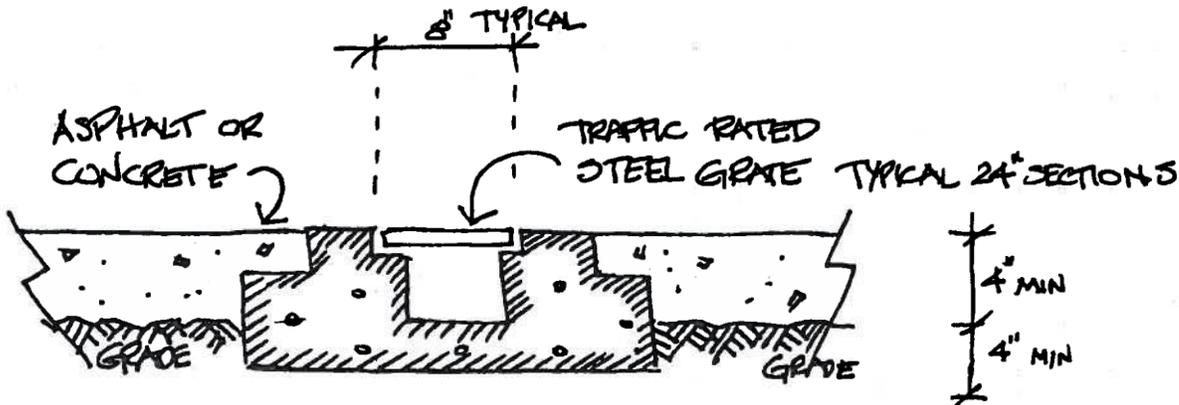
30" DIAMETER TO 72"

* 36" DIAMETER OVER 72"

* LADDER RUNGS @ 12" ϕ FOR 36" DIAM PLUS.

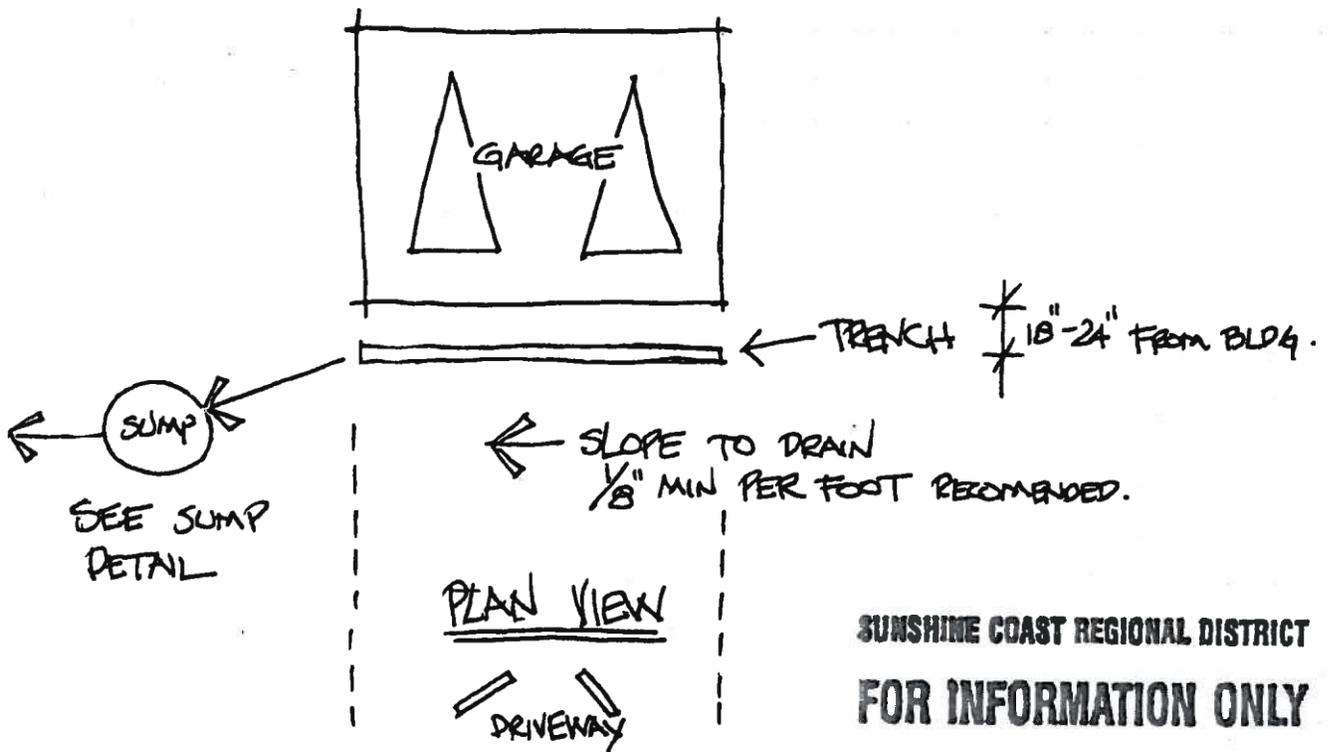
GARAGE TRENCH DRAIN

DWNG:002
DEC 2010



SECTION THRU SITE BUILT DRIVEWAY TRENCH DRAIN

POURED IN PLACE CONTINUOUS TRENCH DRAIN STEEL REINFORCED CONCRETE MIN 3/8" BARS 6 ROWS



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