REF : C11093-15732-calcs.XLS

STORMWATER DESIGN CALCULATIONS

3 HOOVER PLACE

CROMER

1.0 Detention System Requirements

Proposed Residence
3 HOOVER PLACE
CROMER

REF : C11093-15732-calcs.XLS

1.1 Storage-Area calcs. 5600

DATA:

Site Area Assessed due to easements
Site Area = **0.0560** ha 560 sq.m
OSD exemption if less than 450sqm or less than 40% site coverage
40% of site area = 224 sq.m

Impervious Area Pre Development = 346.13 sqm
Percentage Impervious Pre Development = 62%
Impervious Area POST Development = 295.1 sqm
Percentage Impervious POST Development = 53%
OSD Exemption Not Applicable

Catchment directed through OSD = 248 sqm OK 44.3 %

OSD Bypass Areas :			
Impervious	47.1 sqm	15.1 %
Pervious	264.9 sqm	84.9 %
Total	312 sqm	56 %

Impervious area bypass 16.0 % OK
Bypass - discharge - 14.5 L/s

Detention A

Volume Required 11.20 cu.m 200cum/ha
Total Area 8.11 sq.m

Orifice Dia. = 67 mm Q=d^2*sqrt(h)/0.48
Invert of pit = 11.68 m d=sqrt((0.48*Q)/sqrt(h))
Max. Water Level achieved = 12.42 m
Storage achieved 734 L

Minimum Storage **11200** L - SSR with no modelling.
Maximum Discharge **7.9** L/s - PSD 400L/s/ha
Proposed Discharge 7.7 L/s - PSD **OK**

Basix Allowance

Raintank Basix = 5600 L
Raintank Provided = 5720 L
50% of OSD = 5600 L
Basin Type Inside Raintank
Net OSD required **5600 L**