

Williams Consulting Engineers Australia Pty. Ltd.

ABN39129454146

ACN129454146

CIVIL STRUCTURAL

Telephone (02)47395765 Mobile 0425 307531

Email Ralph@WCEA.com.au

78 St Johns Road, Blaxland, NSW. 2774

P.O. Box 79 Blaxland, NSW. 2774

5000 Channel Highway, Gordon, TAS. 7150

P.O. Box 79 Middleton, TAS. 7163

11th March, 2015
Project No.2014/075

Ms. Natasha Baker,
Stimson and Baker Planning Consultants,
Suite 21, The Broadwalk,
458 High Street,
PENRITH. NSW. 2750

Dear Sir,

RE: PROPOSED RE-DEVELOPMENT OF THE COFFEE CLUB SITE, NO.78 LOT 3 DP30354
TENCH AVENUE, JAMISONTOWN, NEW SOUTH WALES – A FLOOD REPORT, A
STORMWATER DRAINAGE CONCEPT PLAN AND MUSIC MODELLING REPORT.

THE EXISTING SITE:

The writer has visited the site and reviewed the stormwater drainage systems for the existing Coffee Club premises.

The front bitumen carparking area drains to a front boundary grated pit midway along the carpark. This is connected to an EKI pit in the Tench Avenue kerb and gutter from where it drains across the road to the street drainage system which it is assumed is connected to an outlet to the Nepean River.

The existing Coffee Club building drainage system is not known. It may well drain to soakage trenches at the rear of the existing building which seems a reasonable assumption, given the flatness of the site. The existing Coffee Club finished floor level is RL28.24 AHD by survey – Richard Hogan & Co. Pty. Ltd., 19/2/2014. This is nominally at the 1 in 100 ARI flood level for the mainstream Nepean River, and therefore the existing premises are unlikely to be affected other than in extremely rare events..

Penrith City Council has provided a Flood Level Enquiry report, Ref.ECM6269471 dated 25th August, 2014. The 1 in 100 ARI flood level for the mainstream Nepean River is RL28.3 AHD. The 1 in 100 ARI flood level for the Peachtree Creek flood plain is RL27.1 AHD.

PROPOSED NEW BUILDINGS:

All new building premises are proposed to be constructed with finished floor levels at or above RL28.8 AHD, i.e. providing a minimum 500mm freeboard to the 1 in 100 ARI flood event as required by Penrith City Council's policies relating to flood prone areas.

EGRESS: The footpath at the north western corner of the site is at or slightly above the 1 in 100 ARI mainstream Nepean River flood level. Egress from the site will be directed to this point providing patrons and staff with a safe area to access in a public space, if so desired. They of course can remain in the premises until the floor peak falls. Such a flood peak would be expected to last for only a short time.

The Coffee Club Re-development,
78 Tench Avenue,
JAMISONTOWN (Cont.):

STORMWATER DRAINAGE:

The site is extremely flat with the existing ground level falling to the rear of the proposed carpark being from RL 28.3 to approximately RL 27.2 over a distance of approximately 88M, a grade of approximately 1.24%.

In accordance with Penrith City Council's policies, where new works are proposed the levels have been determined so as to ensure that post development there is no diminution of the existing flood storage volumes available.

Due to the flat site constraints, a wetland is proposed at the rear of the development, with an initial pond storage. The soils on the site are a sandy clay and have a small capacity for infiltration. Surcharge flows are directed to the rear of the site, a significant part of the site area. This area is unlikely to ever be developed as it lies within the flood plains of both the mainstream Nepean River and Peachtree Creek.

The existing carparking area stormwater drainage double EKI grated pit will be retrofitted with a Stormwater 360 Enviropod 200 filter fitted with an oil and grease absorbing filter pad and the drainage flow redirected to the wetland at the rear of the site.

MUSIC MODELLING:

MUSIC modelling has been carried out and MUSIC-link applied using Penrith City Council's requirements and specifications.

CONCLUSIONS:

The proposed re-development of the Coffee Club site is able to be carried out in conformance with Penrith City Council's guidelines for developments in flood affected areas and complying with the Council's water quality guidelines.

Yours faithfully,



R. D. Williams,
B.Sc.(Tech.), Civil Engineering,
Grad.Dip., Mining Engineering,
MIEAust., CPEng., NPER2445628