Warren Smith & Partners

38 YEARS OF SERVICE

TECHNICAL NOTE – 01: Overland Flow Path adjacent to Chapel	
Project name: Macarthur Memorial Park	Issued to: Dept of Planning & Environment
Project no: 5162001	Prepared by: Niall Quinn Reviewed by: Michael Cahalane
Client: CMCT	Date issued: 18/10/2018
Document No: 5162001-WS+P-CS-TN-0001	Revision: 1

Introduction:

This technical note has been prepared in response to the Department of Planning and Environment query raised by Campbelltown Council in relation to the overland flow path north of the proposed chapel.

DPE comment: "*Campbelltown Council comment regarding the overland flow path of stormwater behind chapel. Despite comment provided by the Stormwater engineer, we have not included a drawing detailing the measures to mitigate the overland flow on Road 1 north (and upstream) of the Chapel."*

Response:

The proposed stormwater network consists of a swale (adjacent to Road 1) as well as a pit and pipe system within Road 1 kerb and gutter adjacent to and (north) of the proposed chapel. The swales located north of the road will capture any overland flow sheeting down the hill before reaching the road. This flow will then be conveyed through the pit and pipe system located under the road kerb and gutter.

The stormwater system has been designed based on a minor and major system in line with Campbelltown Council's Development Control Plan. The minor system, designed to a 10-year ARI, will contain all flows within the proposed system therefore resulting in no overland flow near the chapel.

The major system, designed to a 100-year ARI, is designed to safely convey major storm flows when the capacity of the minor system is exceeded. The proposed stormwater system north of the chapel safely conveys overflows within the road network without any potential impact to buildings or public safety in the 100-year ARI. Any surcharge from pits near the proposed chapel will be conveyed within the road network away from the chapel. Please refer to attached sketch *'5162001-WS+P-SK-41 Chapel Overland flow path'* for further details of overland flow paths. Table 1 below also identifies overland flows encountered between each pit near the chapel in the 100yr ARI event. It is evident that the overflows are minor in nature with maximum depths of 89mm.

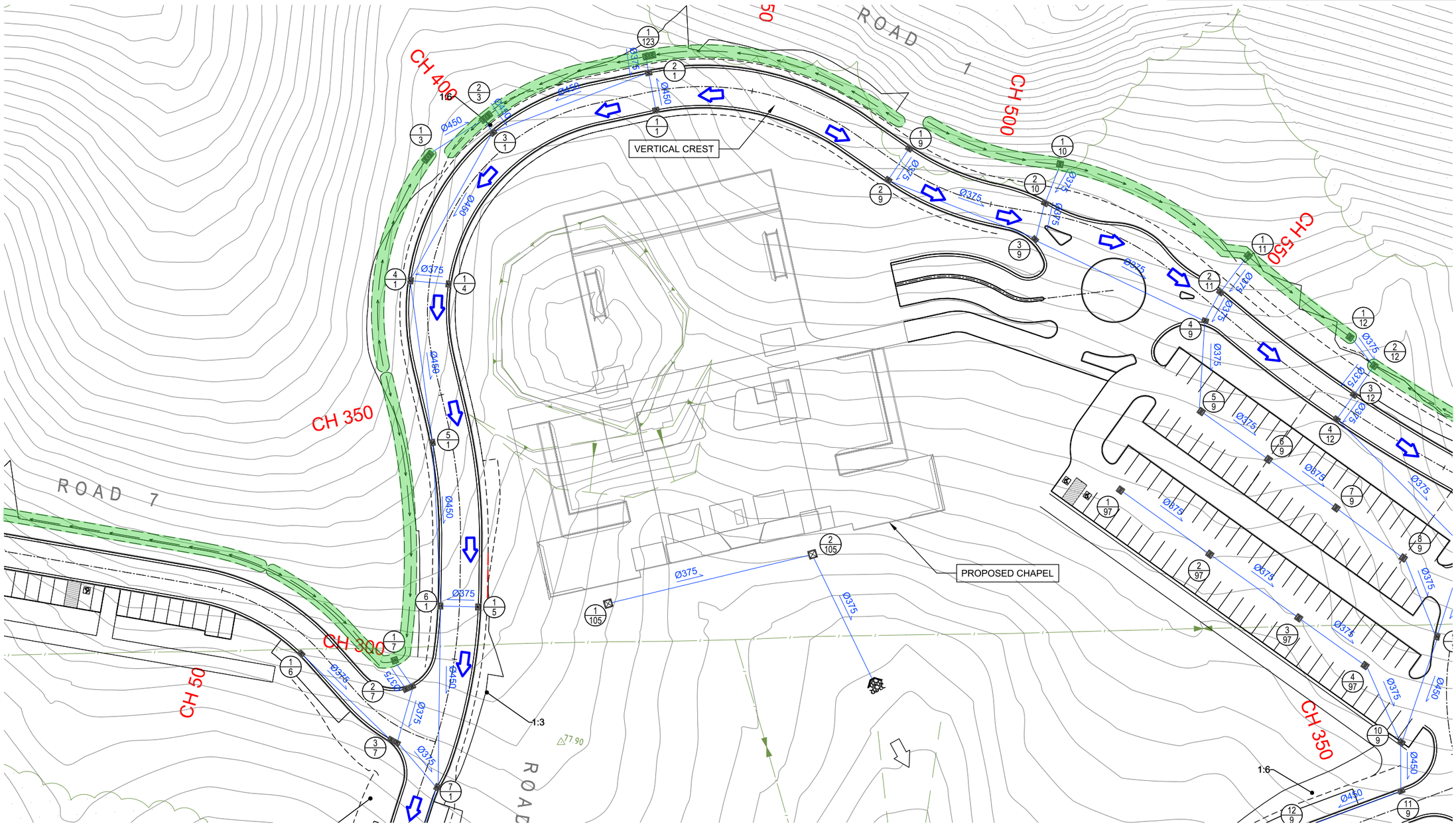
Table 1: Overland Flows (100 year ARI)

Overland Flow Route	Max Flow (l/s)	Max Depth (mm)
Pit 1/1 to Pit 1/4	22	77
Pit 1/4 to Pit 1/5	6	39
Pit 1/5 to 7/1	1	21
Pit 2/9 to Pit 3/9	0	0
Pitt 3/9 to Pit 4/9	10	89

LEGEND

OVERLAND FLOW ROUTE

SWALE



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REVISION	AMENDMENT	DATE	REVISION	AMENDMENT	DATE
1	FOR INFORMATION	18/10/18			

CLIENT: Catholic Cemeteries & Crematoria — Care, Compassion, Choice

PROJECT: MACARTHUR MEMORIAL PARK

PREPARED BY

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TITLE: **CHAPEL OVERLAND FLOW PATH**

SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
NTS	M.Cz.	M.Cz.	N.Q.	M.C.

JOB No.	DRAWING No.	ISSUE
5162001	SK-41	1

DATE	STATUS
18/10/18	ISSUE FOR INFORMATION

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