

Date: 9<sup>th</sup> July 2022 Our Ref: 210217

The General Manager Clarence Valley Council Locked Bag 23 GRAFTON NSW 2460

Dear Sir,

## Re: Stormwater Drainage – Proposed Manufactured Home Estate - 8 Park Avenue, Yamba

To address the concerns raised during the community consultation regarding stormwater drainage we provide the following calcifications relating to the stormwater design of the proposed Manufactured Home Estate.

Attached to this letter is plan titled 'Proposed Stormwater Flow Path – Diagrammatic Section' (DA-21; dated 08/06/2022) by JKH Build Design, which illustrates the 'Existing Site – Stormwater Flow' versus 'Proposed Site – Stormwater Flow'. The latter represents the post-development stormwater flows while the former represents the pre-development (existing) stormwater flows.

The diagrams effectively illustrate the following:

- 1. Perimeter drains within the HTA site are provided to receive overland stormwater flows from adjoining properties fronting Yamba Road and The Halyard.
- 2. The perimeter drains for Yamba Road have already been provided as part of the previous filling activities on the site.
- 3. Diagram titled 'Existing Site Stormwater Flow (Diagrammatic Section)' illustrates:
  - a. A typical adjoining property ('House Block') grading to the perimeter drains. In reality, the ground level of adjoining properties is varied and contain sheds, garden beds, fences, dense vegetation etc. See discussion below.
  - b. The existing ground level of the HTA site currently grades some of the site to the perimeter drains.
- 4. Diagram titled 'Proposed Site Stormwater Flow (Diagrammatic Section)' illustrates the proposed changes to ground level in the HTA site will reverse the primary flow of stormwater away from the perimeter drains and toward the new central drainage system. This will significantly reduce the quantity of overland stormwater flows from entering the perimeter drains.
- 5. In addition to the stormwater drainage infrastructure previously detailed, drainage can be provided above the existing retaining wall along the southern portion of the site (as required by Council). The purpose of this additional drainage is to intercept flows from the earthworks batters and prevent them from going over the face of the wall.

As outlined in the Engineering Services Report the internal drainage network has been designed to drain into a 865m<sup>3</sup> underground tank beneath the bowling green. The outlet of this tank has

a smaller pipe to limit the stormwater flows leaving the site. During a storm event water will be directed to the internal drainage system and stored in the underground tank. From the underground tank the stormwater will be released in a controlled fashion into the new drainage culvert beneath Park Avenue. The culverts beneath Park Avenue will be completely separate to the existing drainage systems in the area and convey flows from the site to the existing swale on the eastern side of Shores Drive.

The perimeter drains for Yamba Road are already located within the HTA site and are provided for the benefit of adjoining properties.

The quantity of stormwater discharged from the HTA site into the perimeter drains will be significantly reduced by the proposed development. Notwithstanding, localised stormwater flooding of adjoining properties may continue due to a combination of factors, including:

- The obstruction of stormwater flows due to sheds, fences, gardens etc within adjoining properties. See photos below.
- Blockages within the perimeter drains due to illegal structures, fences, illegal dumping of garden waste and incidental garden waste (falling branches etc.). See photos below.
- The lack of maintenance of downstream stormwater outlets on Shores Drive / Clarence Estuary Nature Reserve. See photos below.

Adjoining properties with structures in or adjacent to the stormwater drainage easement



Stormwater drains and outlets adjacent to Shores Drive, blocked and overgrown

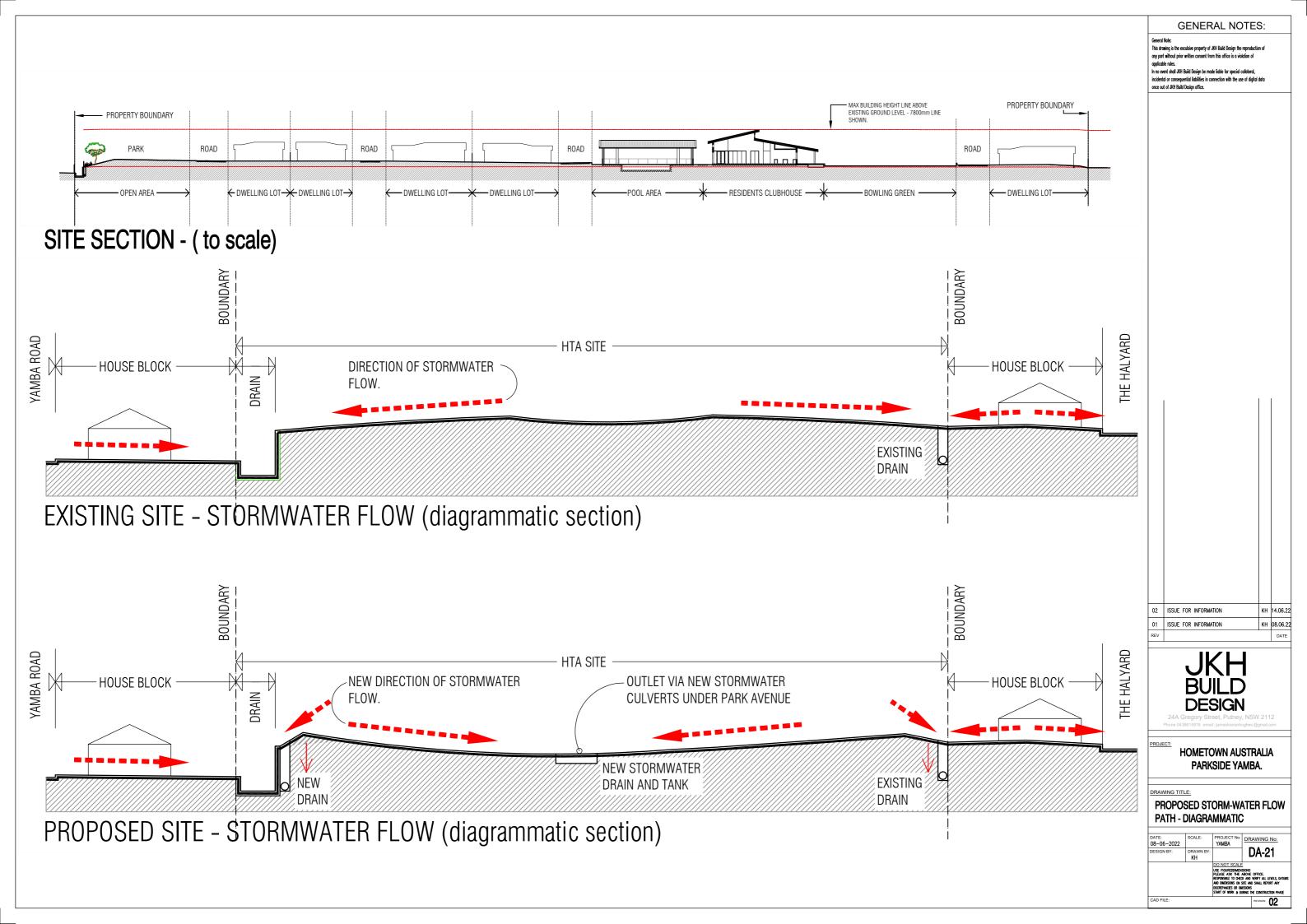


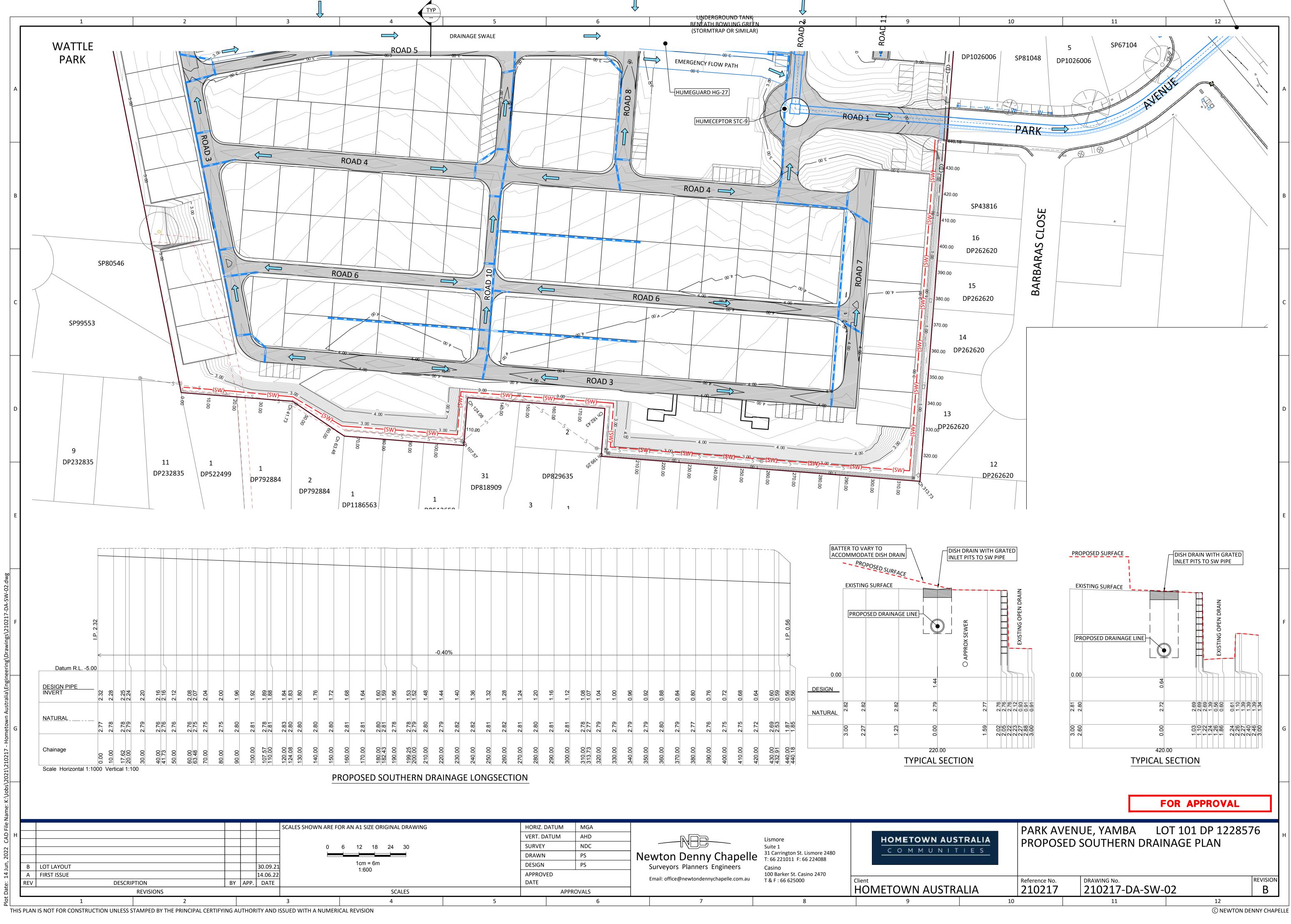
It is understood that HTA is committed to a regular maintenance of the perimeter drains and working with neighbouring land owners to ensure the drains are maintained.

Should you have any questions regarding this matter, please do not hesitate to contact me.

Yours sincerely, NEWTON DENNY CHAPELLE

CHRIS PICKFORD Civil Engineer Encl: Proposed Stormwater Flow Path – Diagrammatic Sketch 210217-DA-SW-02





K:\Jobs\2021\210217 - H l CAD 2022 14

			_	<u> </u>	9
	APPROVALS				HOMETOWN AUSTRALIA
	DATE		Newton Denny Chapelle Surveyors Planners Engineers Email: office@newtondennychapelle.com.au	Lismore Suite 1 31 Carrington St. Lismore 2480 T: 66 221011 F: 66 224088 Casino 100 Barker St. Casino 2470 T & F : 66 625000	COMMUNITIES
	APPROVED				
	DESIGN	PS			
1	DRAWN	PS			
2	SURVEY	NDC			
N N	VERT. DATUM	AHD			HOMETOWN AUSTRALIA
I	HORIZ. DATUM	MGA			