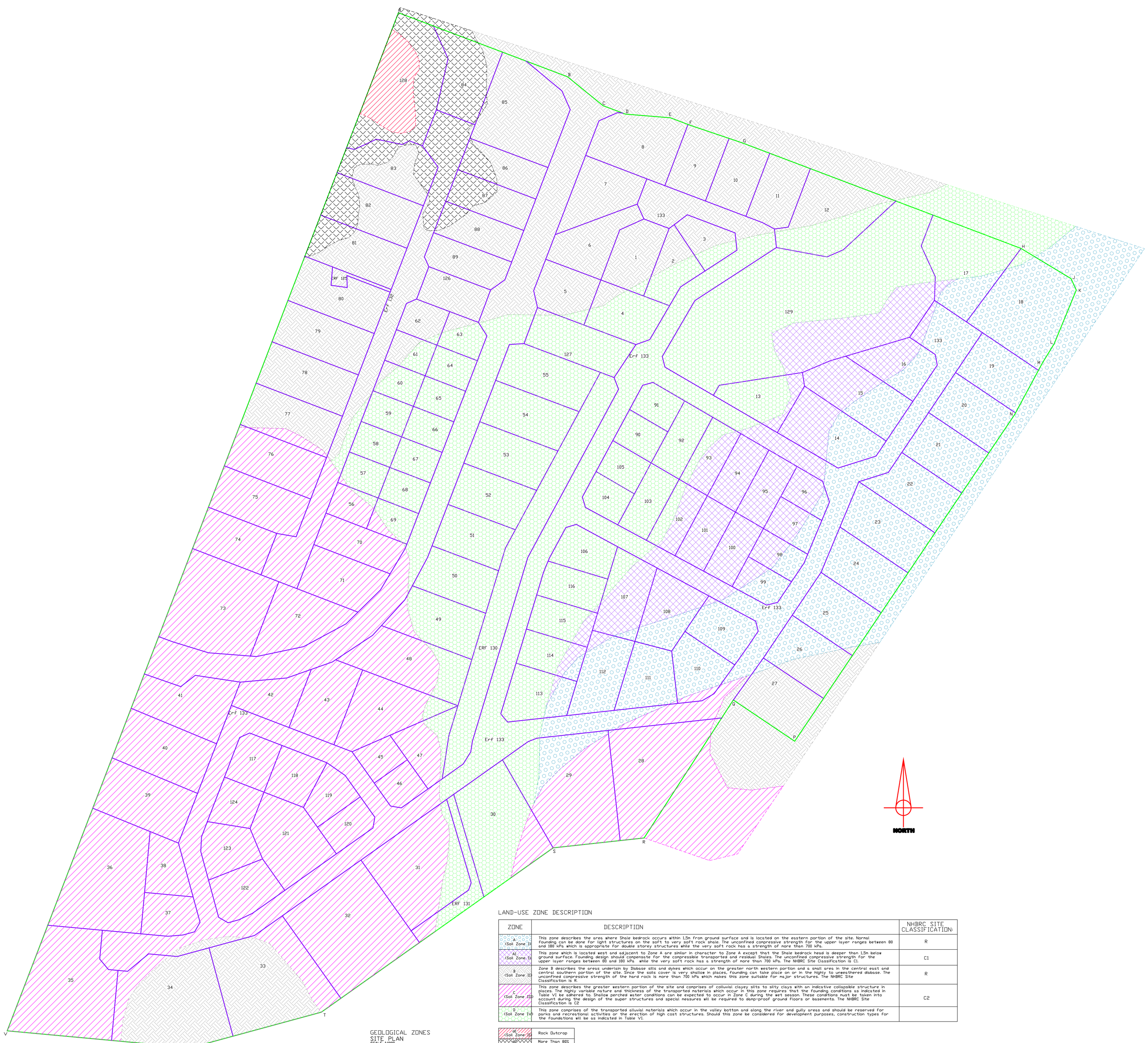

GEOLOGICAL ZONES
SITE PLAN
SCALE 1:4000

LAND-USE ZONE DESCRIPTION

ZONE	DESCRIPTION	NHBRC SITE CLASSIFICATION:
A (Soil Zone Ia)	This zone describes the area where Shale bedrock occurs within 1,5m from ground surface and is located on the eastern portion of the site. Normal founding can be done for light structures on the soft to very soft rock shale. The unconfined compressive strength for the upper layer ranges between 80 and 180 kPa which is appropriate for double storey structures while the very soft rock has a strength of more than 700 kPa.	R
A1 (Soil Zone Ia)	This zone which is located west and adjacent to Zone A are similar in character to Zone A except that the Shale bedrock head is deeper than 1,5m below ground surface. Founding design should compensate for the compressible transported and residual Shales. The unconfined compressive strength for the upper layer ranges between 80 and 180 kPa while the very soft rock has a strength of more than 700 kPa. The NHBRC Site Classification is C1.	C1
B (Soil Zone IIa)	Zone B describes the areas underlain by Diabase sills and dykes which occur on the greater north western portion and a small area in the central east and central southern portion of the site. Since the soils cover is very shallow in places, Founding can take place on or in the highly to unweathered diabase. The unconfined compressive strength of the hard rock is more than 700 kPa which makes this zone suitable for major structures. The NHBRC Site Classification is R.	R
C (Soil Zone IIb)	This zone describes the greater western portion of the site and comprises of colluvial clayey silts to silty clays with an indicative collapsible structure in places. The highly variable nature and thickness of the transported materials which occur in this zone requires that the founding conditions as indicated in Table VI be adhered to. Shallow perched water conditions can be expected to occur in Zone C during the wet season. These conditions must be taken into account during the design of the super structures and special measures all be required to damp-proof ground floors or basements. The NHBRC Site Classification is C2	C2
D (Soil Zone IV)	This zone comprises of the transported alluvial materials which occur in the valley bottom and along the river and gully areas and should be reserved for parks and recreational activities or the erection of high cost structures. Should this zone be considered for development purposes, construction types for the foundations will be as indicated in Table VI.	

(Soil Zone III)	Rock Outcrop
(Soil Zone IV)	More Than 80% Rock Outcrop