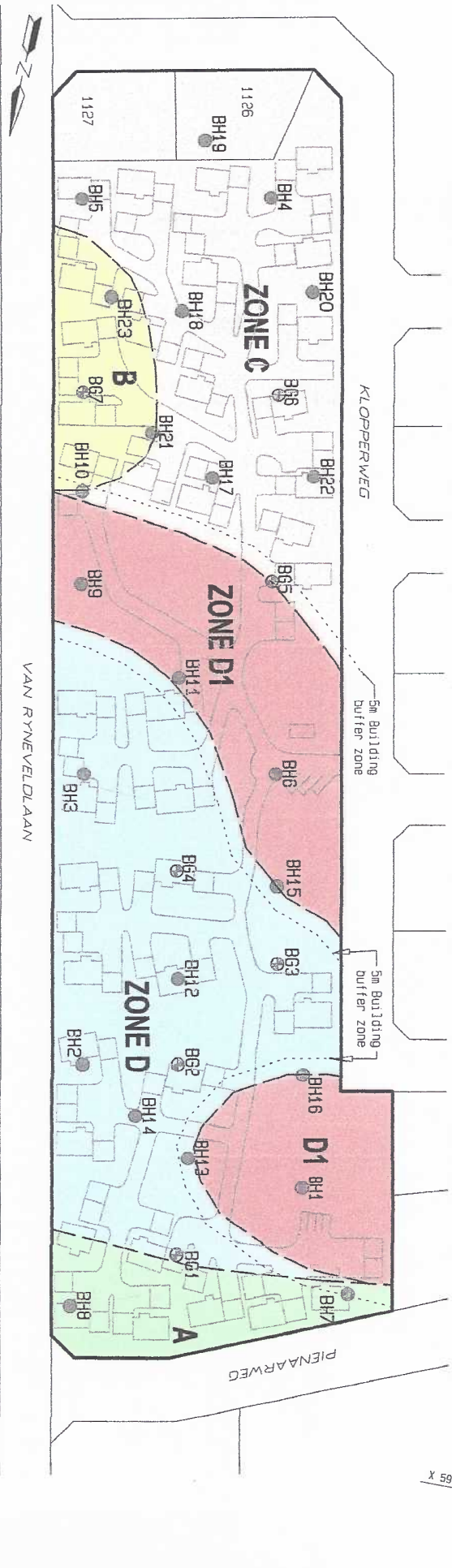


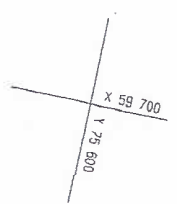
ERF 1211 : PIERRE VAN RYNEVELD X2 : AMENDED STABILITY MAP AND PROPOSED LAYOUT



TERRAIN SUB-DIVISION INTO RISK CHARACTERISTIC ZONE (SANS 1936)

ZONE	RISK OF SINKHOLE FORMATION	RISK CLASS	APPROPRIATE TYPES OF DEVELOPMENT	NHRC AREA DESIGNATION
A	Medium risk for small size sinkholes	2	<p>RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>Suitable for low and high rise dwelling units of 3 >storeys and dwelling houses</p> <p>LAND-USE TYPE</p> <p>RH3 RL1 - RL2 RH - RN3</p> <p>COMMERCIAL AND MISCELLANEOUS NON-RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>Suitable for commercial developments 5-3 >storey facilities</p> <p>LAND-USE TYPE</p> <p>CI - O8</p>	D2
B	Medium risk for medium size sinkholes	3	<p>RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>High rise dwelling units: > 3 Storeys with a residential coverage ratio of < 0.4, no higher than 10 storeys, and a population of < 800 people per hectare</p> <p>LAND-USE TYPE</p> <p>RH3</p> <p>Low rise dwelling units: 3-3 storeys with up to 80 units per hectare and a population not exceeding 400 people per hectare</p> <p>LAND-USE TYPE</p> <p>RL2</p> <p>Dwelling houses: Up to 25 dwelling houses per hectare with stands no smaller than 300m², and a population of < 200 people per hectare</p> <p>LAND-USE TYPE</p> <p>RN2</p> <p>Dwelling houses: Up to 10 dwelling houses per hectare with 1000m² to 4000m² stands, and a population of < 60 people per hectare</p> <p>LAND-USE TYPE</p> <p>RN3</p> <p>COMMERCIAL AND MISCELLANEOUS NON-RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>Pieces of detention, police stations and institutional homes</p> <p>LAND-USE TYPE</p> <p>CI</p> <p>Hospitals, hostels, hotels</p> <p>LAND-USE TYPE</p> <p>C2</p>	D3
C	Medium risk for medium to large size sinkholes	4	<p>RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>Commercial developments 5-3 storeys, inclusive of shops, wholesale stores, offices, places of worship, theatrical, indoor sports or public assembly venues, light (dry) industrial developments, dry manufacturing, commercial uses such as warehousing, packaging, and electrical sub-stations, filling stations</p> <p>LAND-USE TYPE</p> <p>C3</p> <p>Fuel depots, processing plants or any other areas for the storage of liquids, waste sites</p> <p>LAND-USE TYPE</p> <p>C4</p> <p>Outdoor storage facilities, stock yards, container depots</p> <p>LAND-USE TYPE</p> <p>C5 C6 C7</p> <p>Parking areas</p> <p>LAND-USE TYPE</p> <p>C7</p> <p>RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>No residential development</p> <p>LAND-USE TYPE</p> <p>NA</p> <p>COMMERCIAL AND MISCELLANEOUS NON-RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>Suitable for commercial developments of < 3 storeys</p> <p>LAND-USE TYPE</p> <p>C3, C7 & C8</p>	D3
D1	High risk for medium size sinkholes	6	<p>RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>No residential development</p> <p>LAND-USE TYPE</p> <p>NA</p> <p>COMMERCIAL AND MISCELLANEOUS NON-RESIDENTIAL USAGE</p> <p>DESCRIPTION</p> <p>Suitable for commercial developments of < 3 storeys</p> <p>LAND-USE TYPE</p> <p>C3, C7 & C8</p>	D3

Symbol	Description
⊕	PERCUSSION BOREHOLE POSITION (Previous: J v.d. Merwe Report)
●	PERCUSSION BOREHOLE POSITION (Hollard-Muter & Ass.)
○	PHASE I DRILLING
○	PHASE II DRILLING
○	PHASE III DRILLING
○	PHASE IV DRILLING
---	STABILITY ZONE BOUNDARY



PRODUCT: **FIGURE 4: PIERRE VAN RYNEVELD X2 AMENDED STABILITY MAP AND PROPOSED LAYOUT**

Holland-Muter & Assotie

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