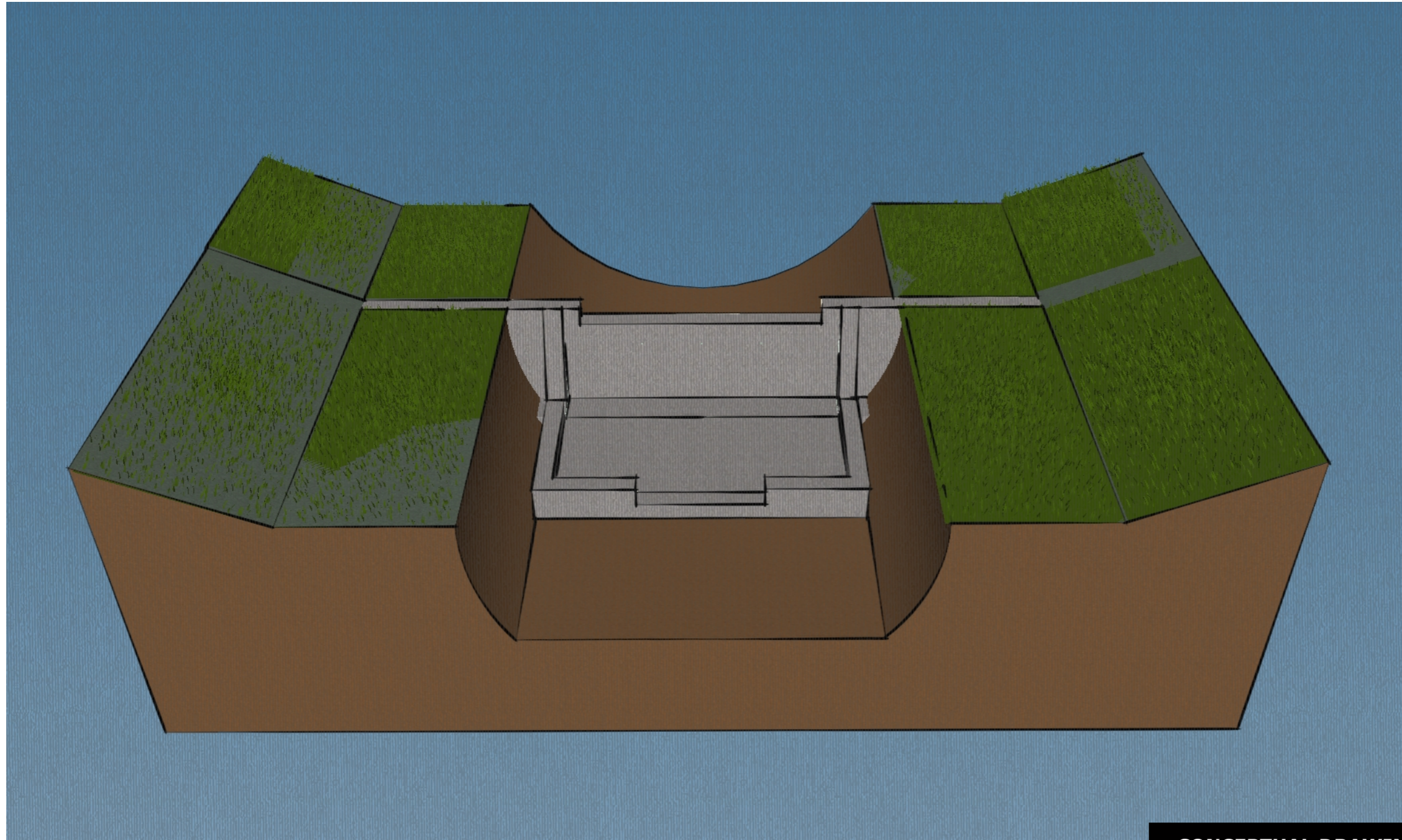


# RIETVLEI CATCHMENT CONCEPTUAL ENGINEERING DRAWINGS CITY OF EKURHULENI



**CONCEPTUAL DRAWING**

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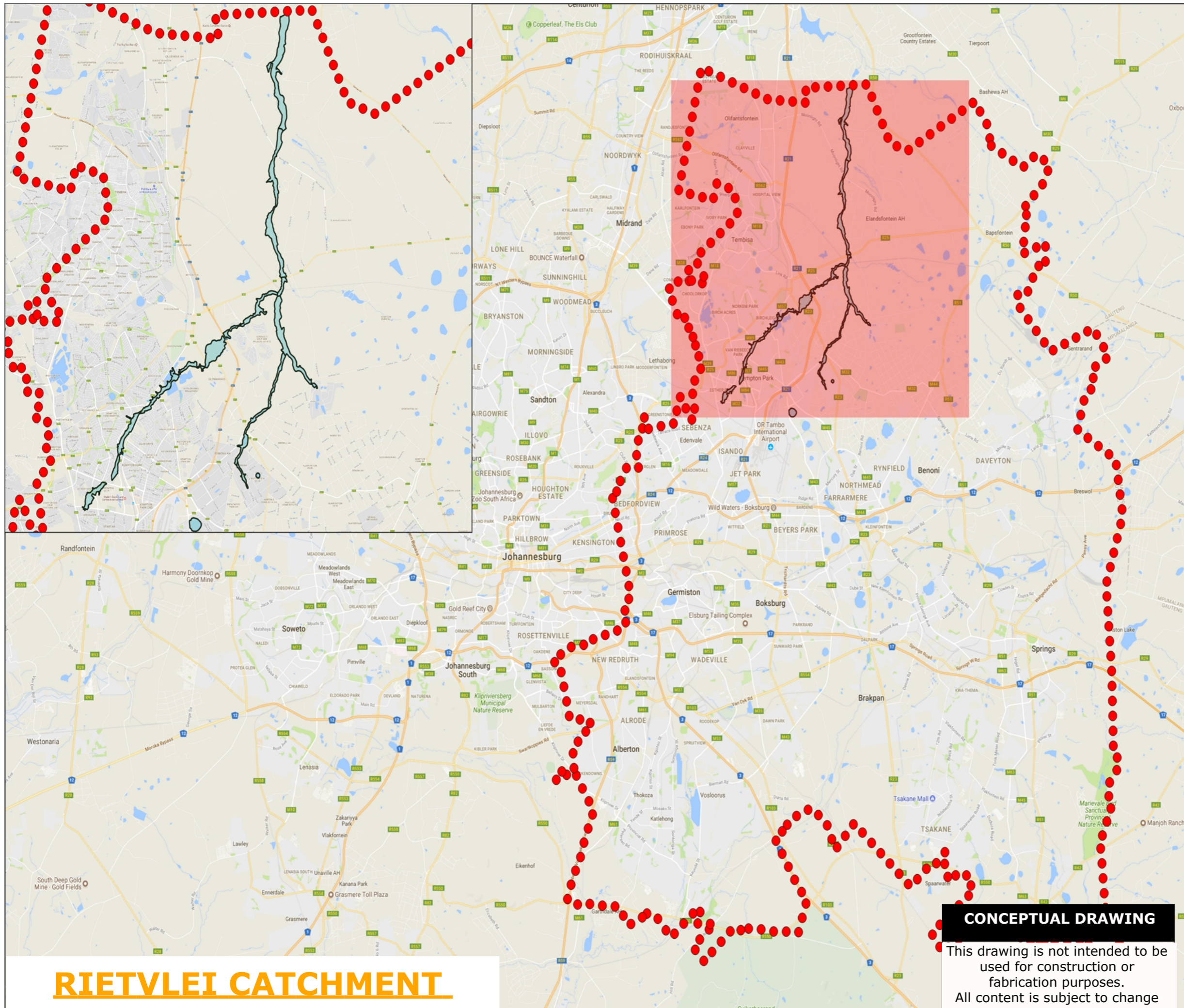
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**Cover Page**

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**A.01**



**RIETVLEI CATCHMENT**

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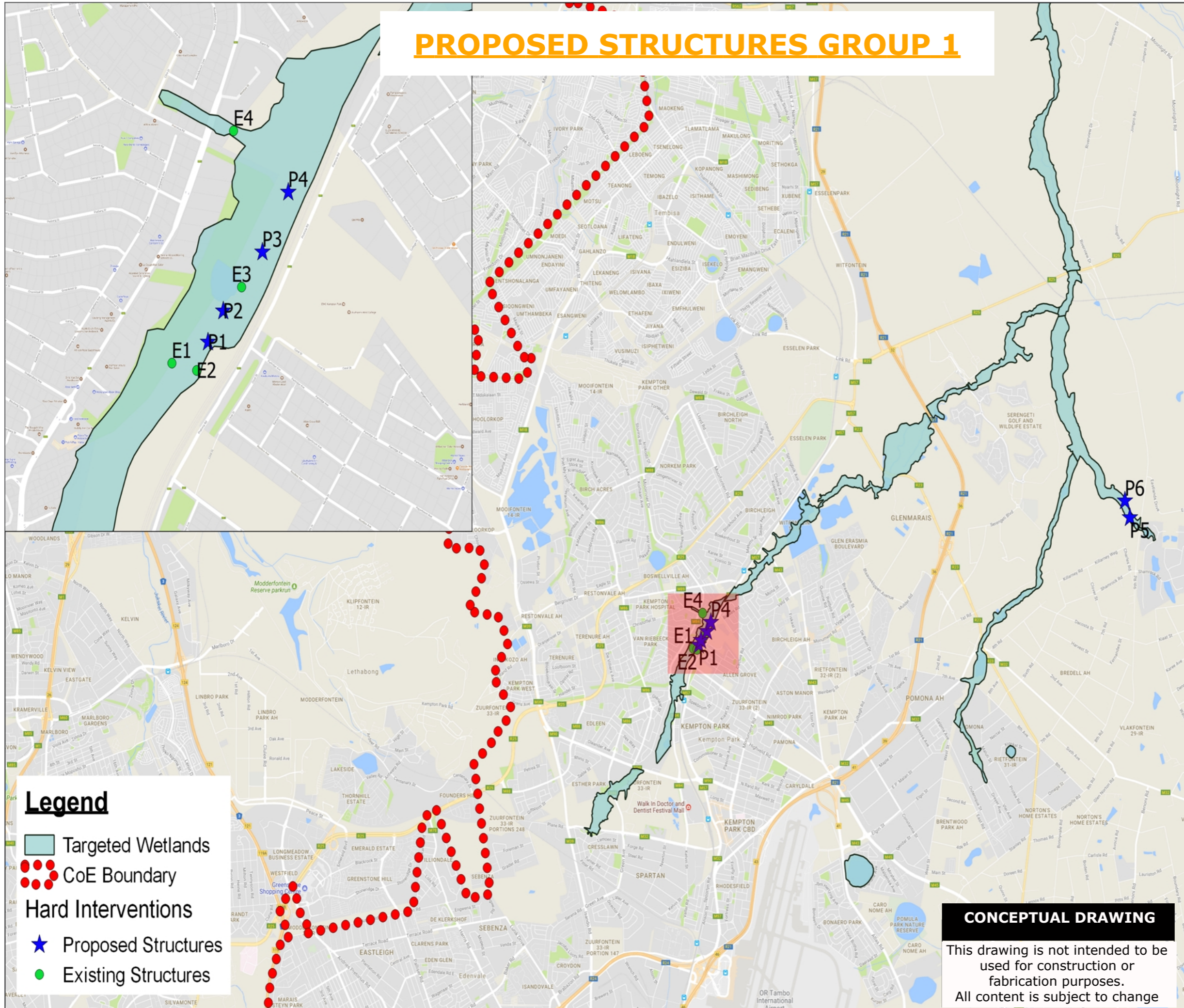


**General Arrangement**

July 13, 2018

**A1.01**

# PROPOSED STRUCTURES GROUP 1



## Legend

- Targeted Wetlands
- CoE Boundary
- Hard Interventions
- Proposed Structures
- Existing Structures

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**Proposed and Existing**  
**Structures Group 1**  
 July 13, 2018

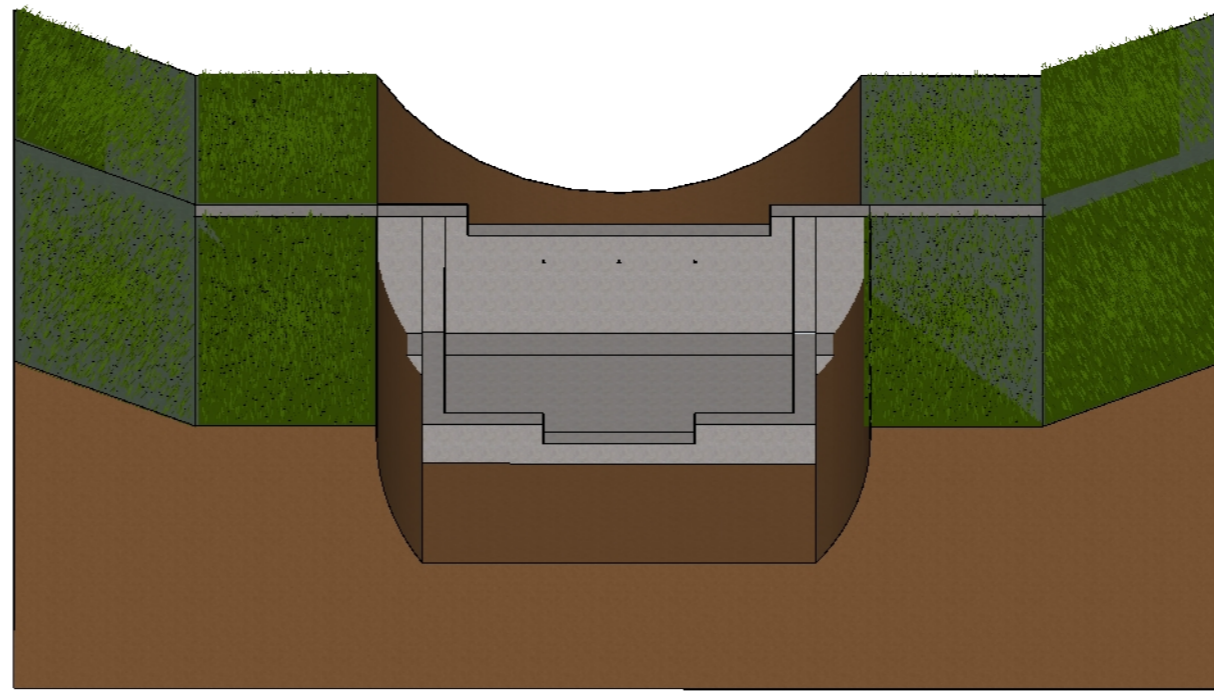
**A2.01**

# CONCRETE WEIR

STRUCTURE	LATITUDE	LONGITUDE	LENGTH (m)
P1	-26.079198	28.224909	25
P2	-26.078436	28.225403	25
P3	-26.076990	28.226669	25
P4	-26.075524	28.227507	25

**Notes:**

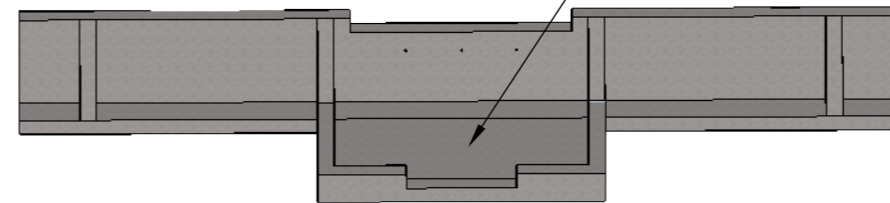
Structure can be optimised during the detailed engineering design phase of the project.  
 Concrete weirs will need to be scaled for each individual point.  
 These sizes should be confirmed in the detailed design.



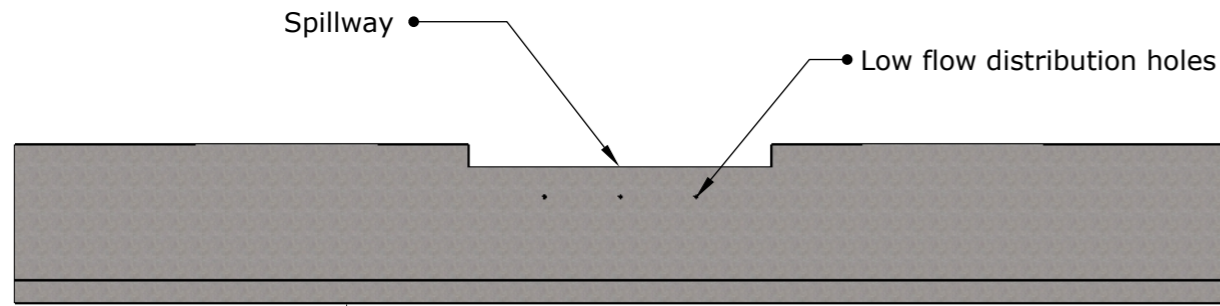
**CONCRETE WEIR**  
scale: 1:100



Plunge pool to help dissipate energy



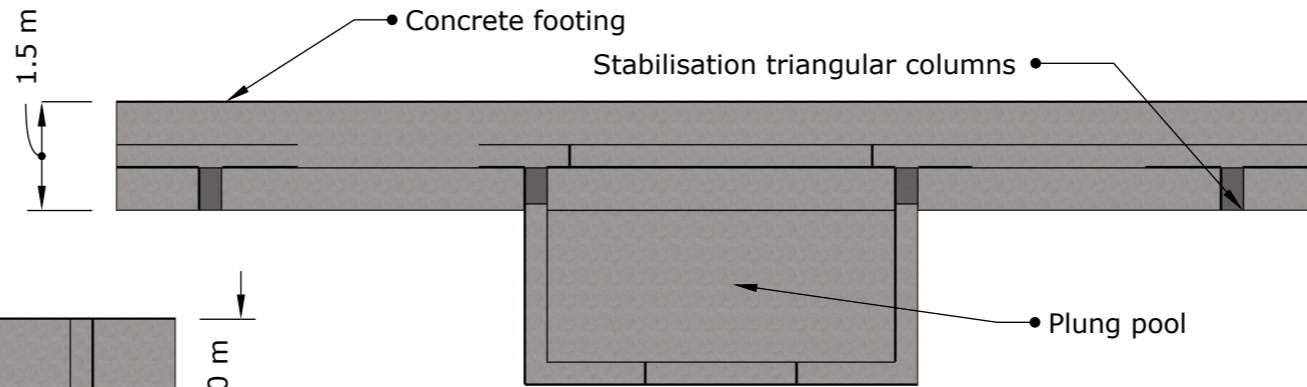
**CONCRETE VIEW**  
scale: 1:NA



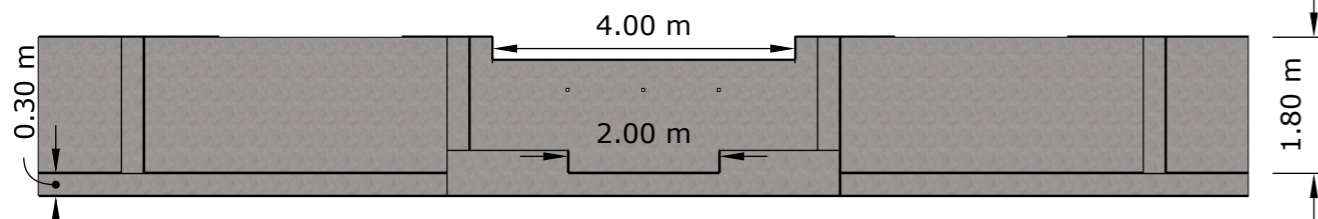
**CROSS SECTION (UPSTREAM)**  
scale: 1:100



Footing foundation needs to be confirmed by geotechnical engineer



**PLAN VIEW**  
scale: 1:100



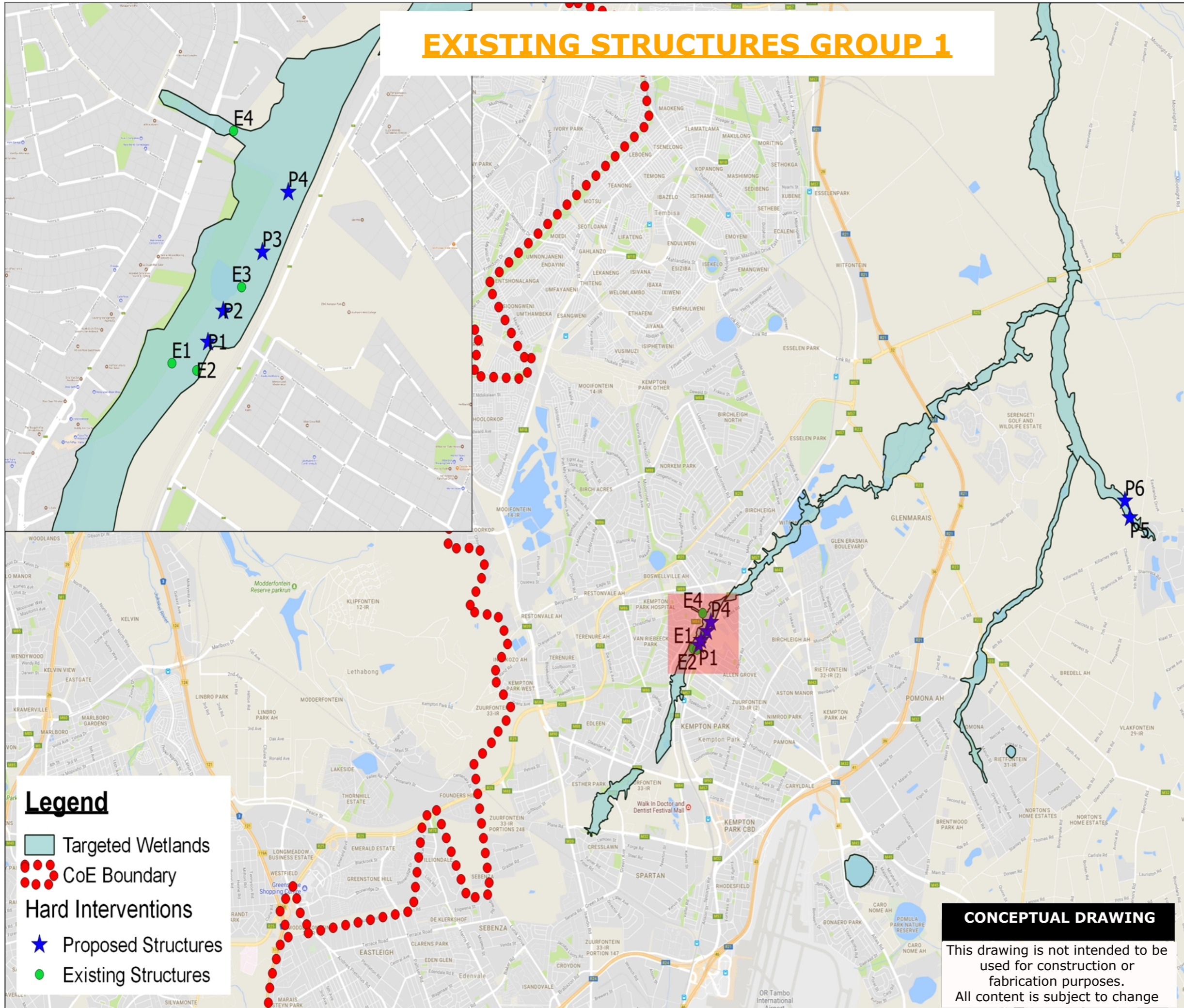
**CROSS SECTION (DOWNSTREAM)**  
scale: 1:100



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# EXISTING STRUCTURES GROUP 1



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**Existing Structures**  
**Group 1**  
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**A4.01**

# EXISTING STRUCTURES MAINTENANCE GROUP 1

STRUCTURE	LATITUDE	LONGITUDE	COMMENT	MAINTENANCE
E1	-26.079714	28.223742	Dam wall with gabion spillway, good condition	Concrete cap gabion, general shaping around dam wall
E2	-26.079892	28.224541	Large concrete weir, good condition	General concrete repairs and extend wingwalls a further 5m on both sides
E3	-26.077848	28.225996	Gabion weir, poor condition	Reconstruct weir with reinforced concrete
E4	-26.074020	28.225736	Gabion channel, fair condition	Replace gabions with Armorflex channel

**Notes:**

All existing structure where designed by other consultants. In the next phase of the project detailed designs of the existing structures with the maintenance measure should be undertaken to get exact construction volumes. Not all intervention could be found. Some areas had access issues and large portion of intervention where never constructed.

**CONCEPTUAL DRAWING**

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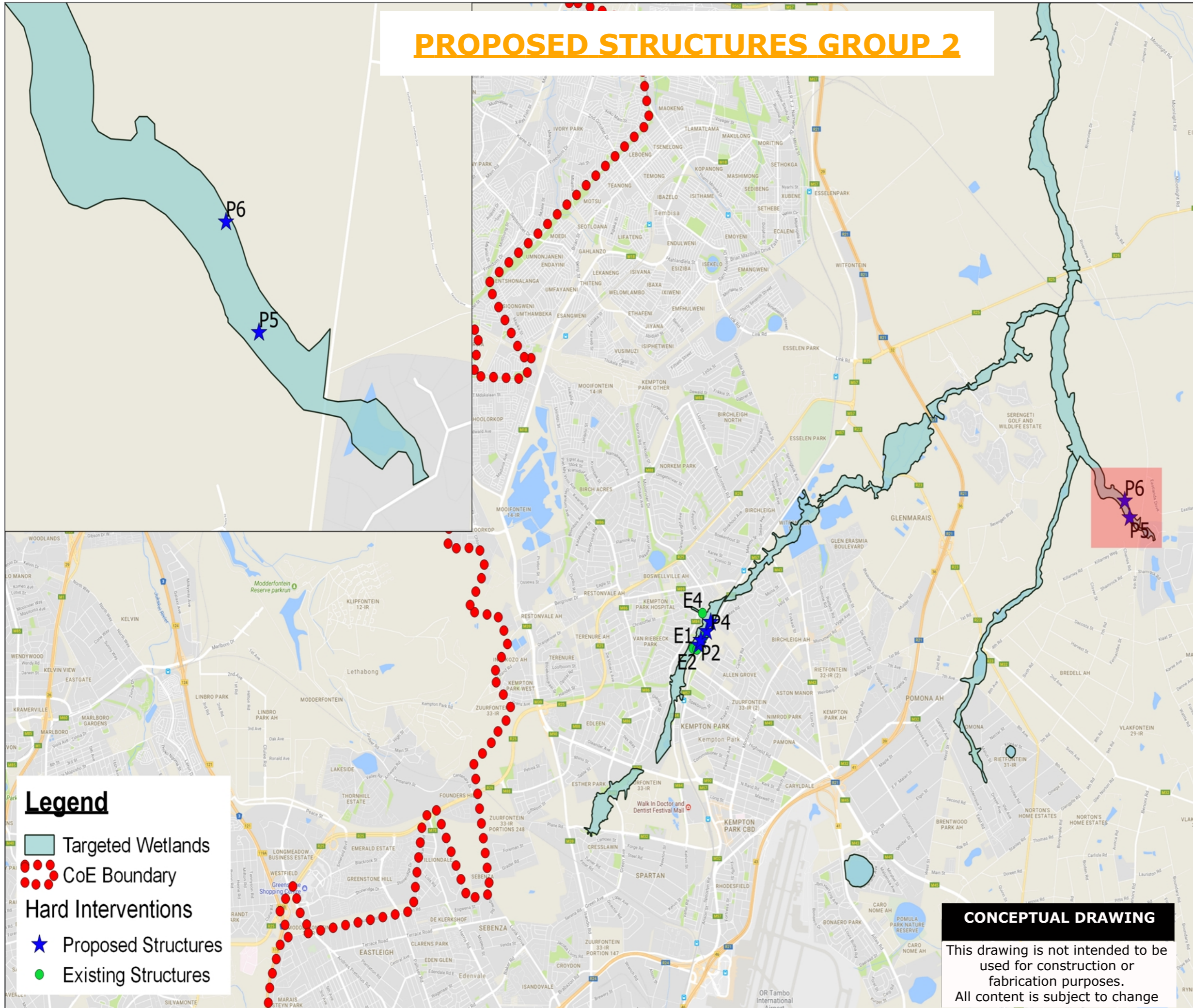
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**Existing Structures**  
**Maintenance Group 1**  
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**A5.01**

# PROPOSED STRUCTURES GROUP 2



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**Proposed and Existing Structures Group 2**  
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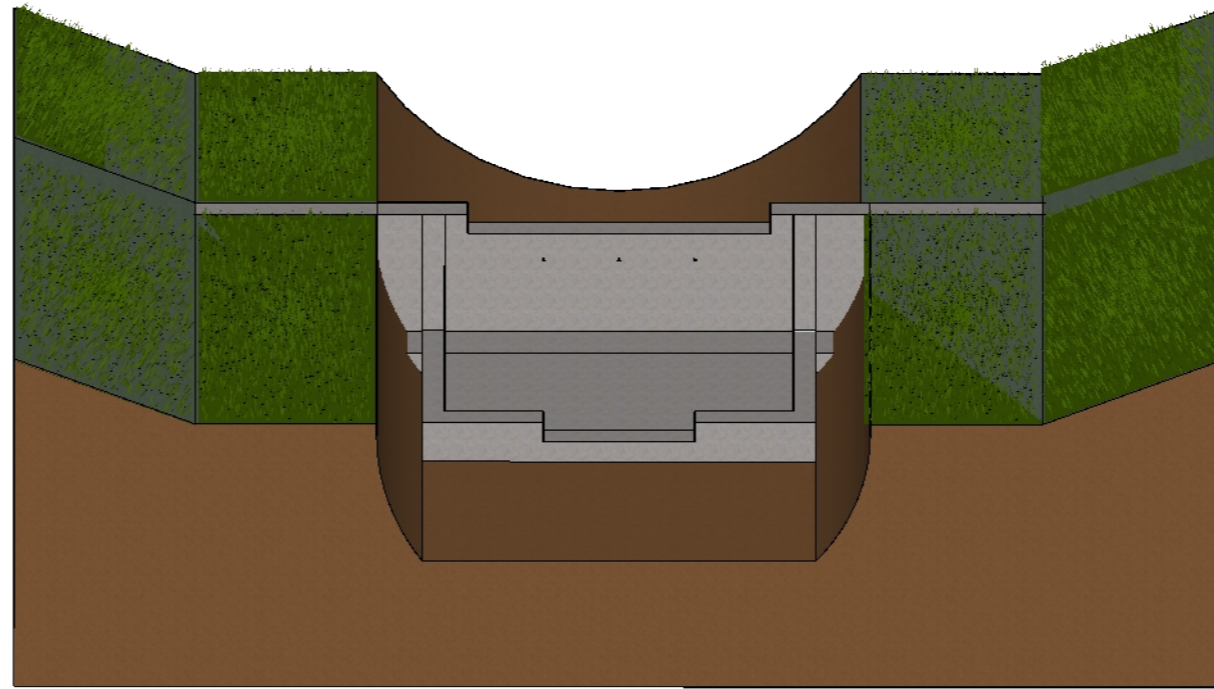
**A6.01**

# CONCRETE WEIR

STRUCTURE	LATITUDE	LONGITUDE	LENGTH (m)
P5	-26.058601	28.316939	28
P6	-26.055891	28.315870	20

**Notes:**

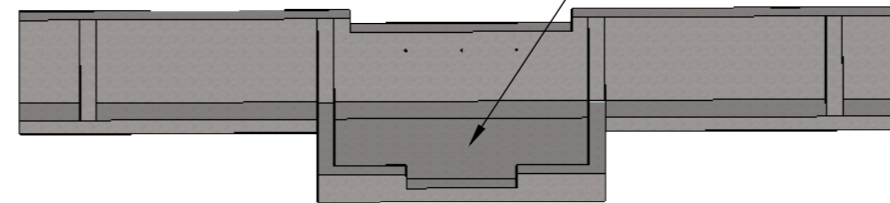
Structure can be optimised during the detailed engineering design phase of the project.  
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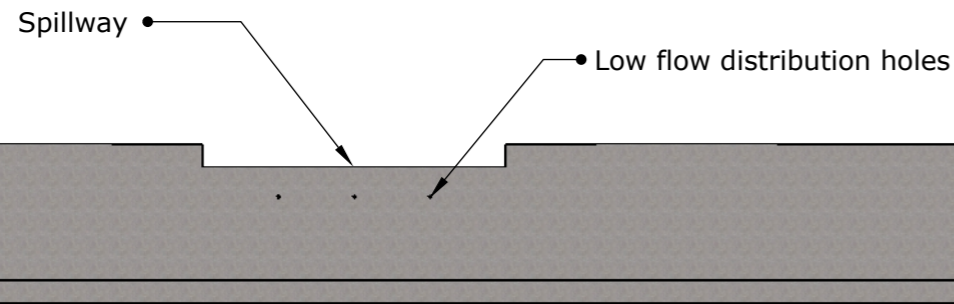
**CONCRETE WEIR**  
scale: 1:100



Plunge pool to help dissipate energy



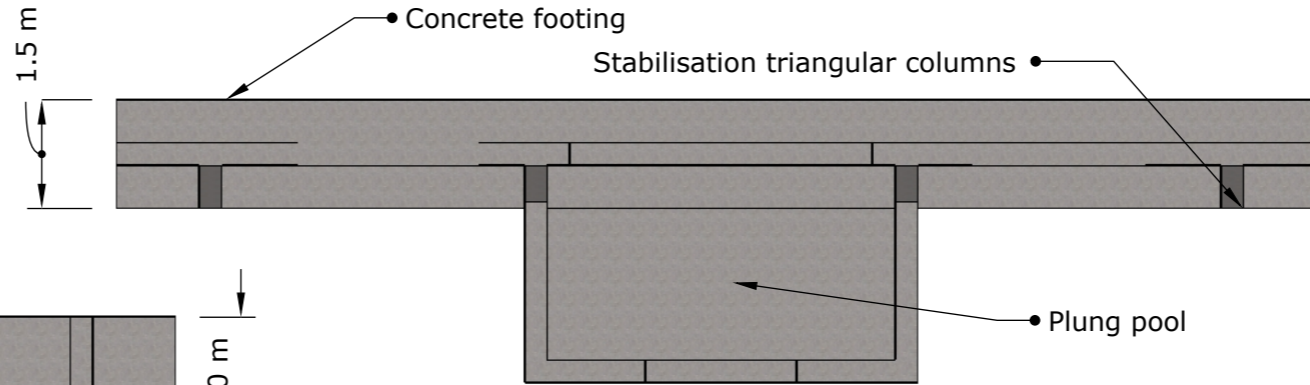
**CONCRETE VIEW**  
scale: 1:NA



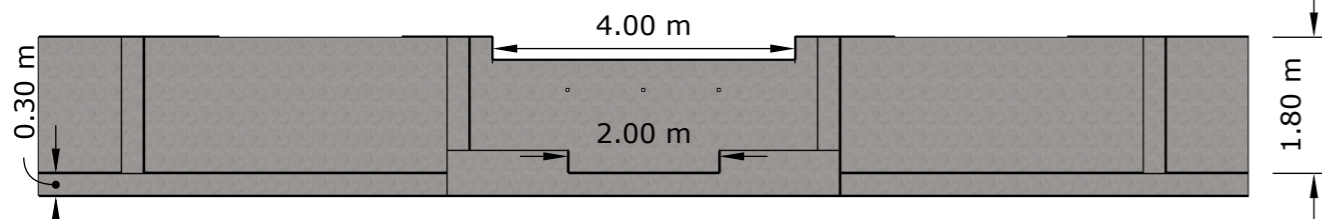
**CROSS SECTION (UPSTREAM)**  
scale: 1:100



Footing foundation needs to be confirmed by geotechnical engineer



**PLAN VIEW**  
scale: 1:100



**CROSS SECTION (DOWNSTREAM)**  
scale: 1:100

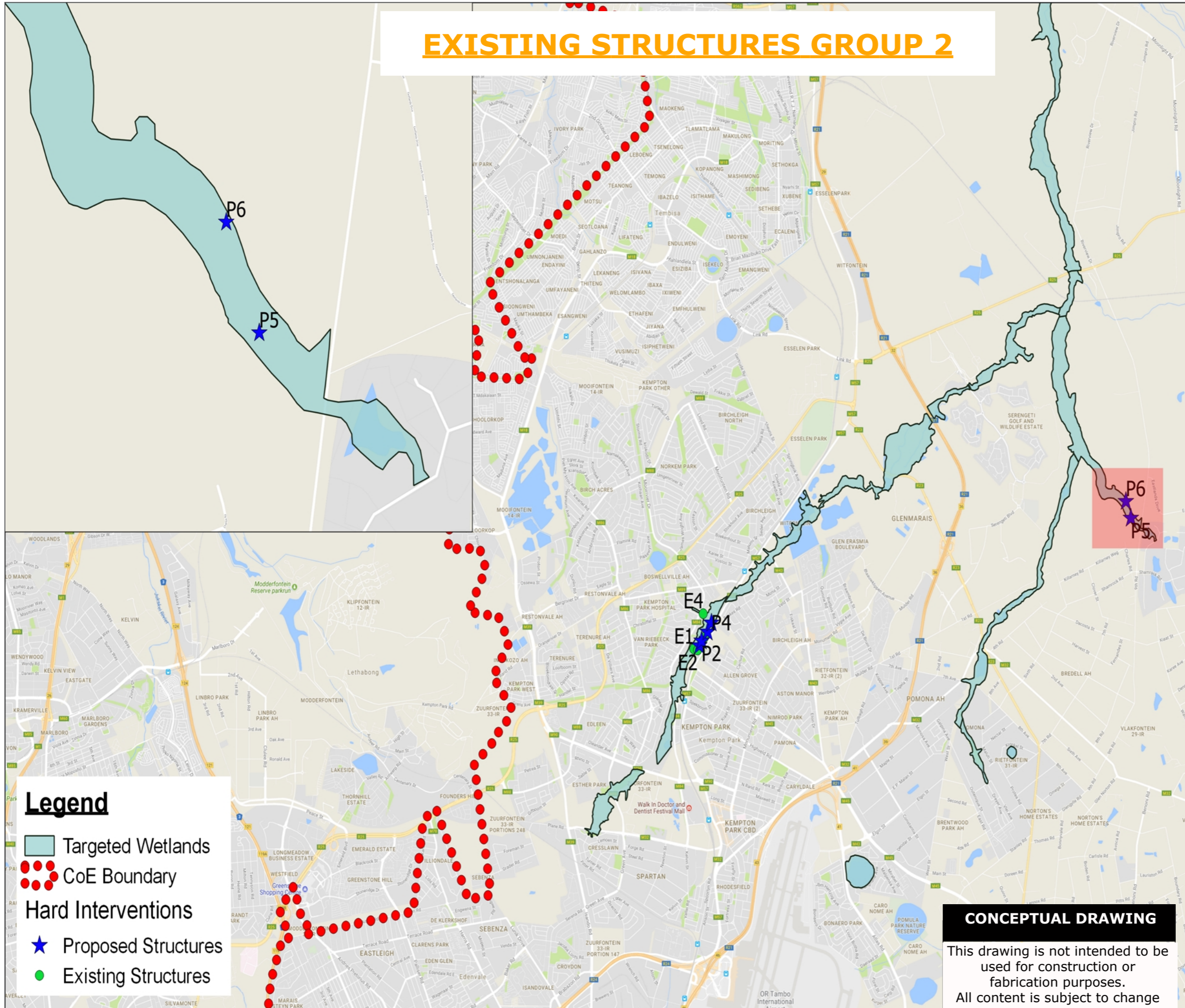


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# EXISTING STRUCTURES GROUP 2



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**Existing Structures**  
**Group 2**  
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**A8.01**

# EXISTING STRUCTURES MAINTENANCE GROUP 2



STRUCTURE	LATITUDE	LONGITUDE	COMMENT	MAINTENANCE
E5	-25.968940	28.300997	River crossing, fair condition	Upgrade the river crossing

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**Maintenance Group 2**  
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**Notes:**

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**A9.01**