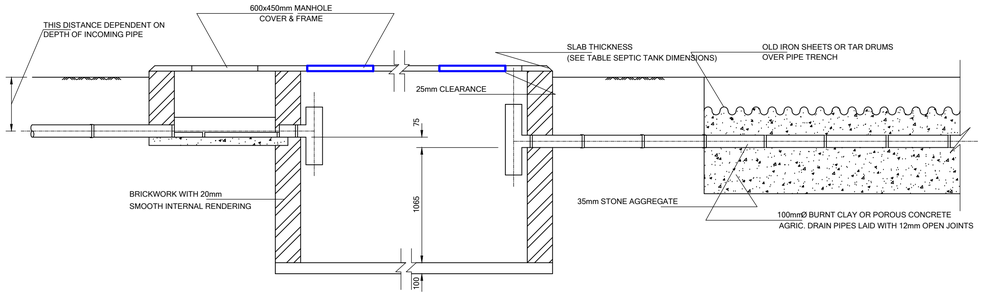
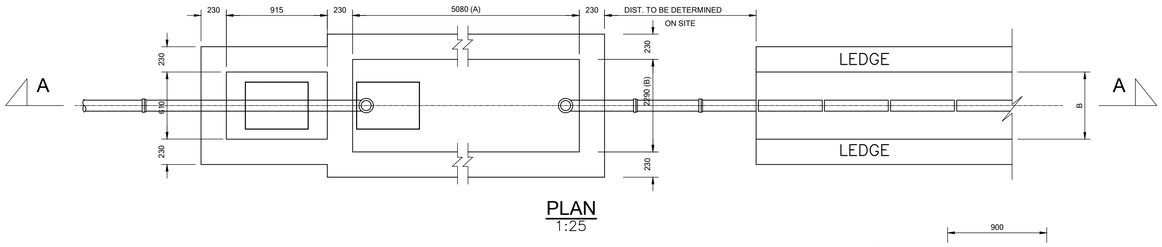
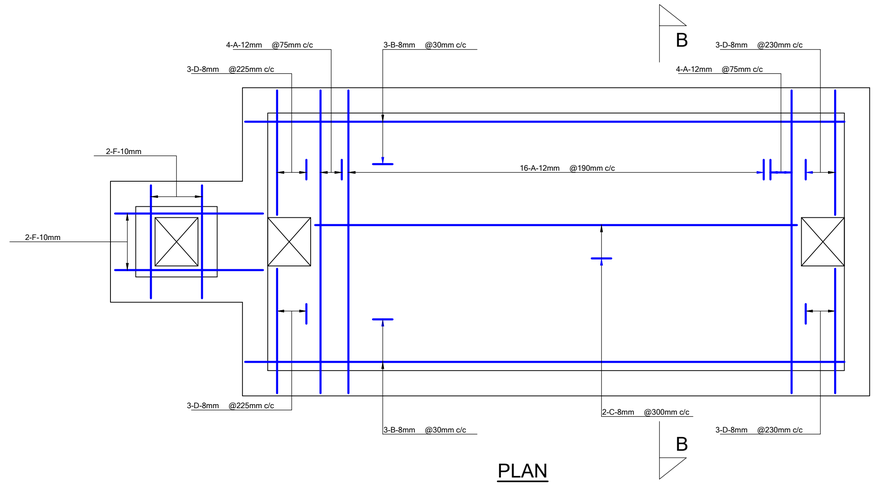


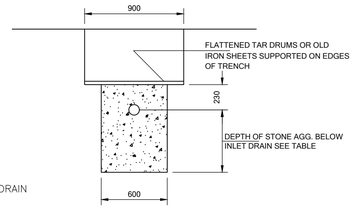
SECTION A-A
1:25



PLAN
1:25



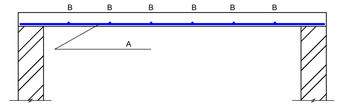
PLAN



SECTION THROUGH SOAKAWAY

BAR MARK	DIA.(mm)	No.OFF	LENGTH	BENDING
A	18	24	2670	STRAIGHT
B	8	6	5410	STRAIGHT
C	8	2	3730	STRAIGHT
D	8	12	1070	STRAIGHT
E	10	2	1300	STRAIGHT
F	10	2	990	STRAIGHT

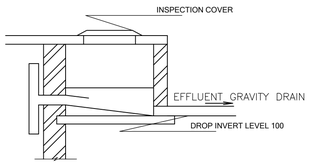
BENDING SCHEDULE



SECTION B-B

SEPTIC TANK DIMENSIONS

No. OF PERSONS	DIMENSION A (mm)	DIMENSION B (mm)	SLAB THICKNESS(mm)	CAPACITY (cu.m)
81–100	5080	2290	115	12.27



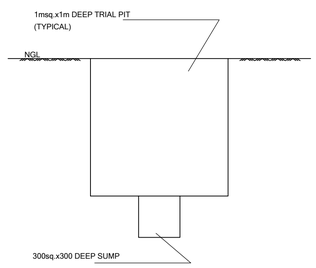
DETAIL OF SEPTIC TANK OUTLET CHAMBER

SOAKAWAY DETAILS

PERCOLATION RATING	TYPE OF SOIL	SUITABILITY OF SOIL FOR EFFLUENT DISPOSAL	DEPTH IN METRES OF STONE AGGREGATE BELOW INLET DRAIN IN TRENCH
>0.25	COARSE SAND OR GRAVEL WITH NO CLAY OR SILT	EXCELLENT	0.6 1.2 1.8
0.25–1.0	WELL GRADED SOIL	VERY GOOD	0.6 1.2 1.8
1.0–2.0	FINE SAND AND SILT OR SANDY LOAMS	GOOD	0.6 1.2 1.8
2.0–5.0	CLAY WITH SOME SAND OR GRAVEL. CLAY GRAVEL CLAY LOAMS	FAIR	0.6 1.2 1.8
5.0–10.0	FINE SAND AND SILT OR SANDY LOAMS	POOR AVOID IF POSSIBLE	0.6 1.2 1.8
>10.0	CLAY HEAVY CLAY	BAD TOTALLY UNSUITABLE	CONSULT ENGINEER FOR ALTERNATIVE METHOD OF DISPOSAL

SOIL ABSORPTION TEST

THE DEPTH OF TRIAL PIT IS DECIDED IN RELATION TO GROUND CONDITIONSAND OUTLET LEVEL OF SEPTIC TANK.
FILL SUMP WITH WATER AND RECORD TIME TAKEN TO SEEP AWAY =T minutes (TOTAL).
PERCOLATION RATING = T/12(minutes).
(ie. AVERAGE TIME (min.) FOR WATER LEVEL TO DROP 25mm.
APPLY RESULT OBTAINED TO SOAKAWAY DETAILS TABLE ABOVE.



TRIAL PIT
1:20

SLAB REINFORCEMENT DETAILS FOR A TANK FOR 100 PERSONS

EXPLANATORY NOTES ON DESIGN OF SOAKAWAYS AND USE OF TABLE

1. FROM TRIAL HOLES DETERMINE TYPE OF SOIL OF SUITABLE SOIL AND HEIGHT OF WATER TABLE.
2. SELECT DEPTH OF STONE AGGREGATE WHICH WILL NOT EXCEED THE DEPTH OF SUITABLE ABSORBENT SOIL OR EXTEND BELOW THE WATER TABLE.
3. FROM TABLE READ OFF LENGTH OF SOAKAWAY REQUIRED FOR A GIVEN NUMBER OF PERSONS, TYPE OF SOIL AND DEPTH OF STONE AGGREGATE.
4. SET OUT SOAKAWAY TRENCH ALONG CONTOUR LINES AVOIDING STEEP SLOPES.
5. IF INSUFFICIENT SPACE IS AVAILBLE FOR ONE LONG TRENCH USE HERRING–BONE LAYOUT OR TWO OR MORE TRENCHES PARALLEL AT 1.830%.
6. AVOID SITES WITH HIGH WATER TABLES.

*SEE DESRIPTION OF SOIL ABSORPTION TESTS FOR THE DETERMINATION OF PERCOLATION RATING

GENERAL NOTES:

All work is to be done in accordance with the National building Regulations.
All materials and workmanship are to comply with the relevant S.A.B.S. codes and or the specified international codes where applicable in the Architectural specifications. Where relevant South African National Standards, BS codes of practice, or Agreement Certificates applicable to the design exists, the recommendations and requirements of such documents to be considered a minimum standard for the works.
The contractor shall in all aspects of the works comply with the provisions of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) and any regulations promulgated in terms of that Act or the Factories Machinery and Building Works Act of 1941.
The contractor shall set up, document and maintain a quality assurance and quality control system, in accordance with SANS 9001/ISO 9001, able to be checked to the satisfaction of the Architect, that all materials and workmanship, whatever their sources, meet the requirements of the Specification.
Should the Contractor or any of his sub-contractors be certified to the SANS 9000 family of standards then monitor these works accordingly.
This drawing must be read in conjunction with all the relevant drawings, schedules and specifications and all other consultants related to the project.
All portions of the works related to any service or consultants information is to be done in accordance with the National Building Regulations.
This drawing is not to be scaled. Figured dimensions to be used. All dimensions are in millimeters unless otherwise stated.
All dimensions and levels must be checked on site by the contractor before putting work in hand.
All work to be executed by competent persons qualified for the specific trade.

TENDER

REV.	DATE	DESCRIPTION	BY
TD	06/04/2021	ISSUED FOR TENDER	NEM

REVISIONS

CONSULTANT:
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CLIENT :
TOURISM KWAZULU NATAL
South Africa KWAZULU-NATAL
Zulu Kingdom. Exceptional

PROJECT:
NELSON MANDELA CAPTURE SITE

PROJECT STATUS:
TENDER

APPROVED
THE MASTER HELD AT ADI ENGINEERING BEARS THE ORIGINAL SIGNITURE OF APPROVAL
ECSA NO:

SIGNATURE: NAME: DATE:

DRAWING TITLE:
SEPTIC TANK LAYOUT AND DETAILS

DRAWING UNITS: MILLIMETER

DATE	SCALE	DESIGNED BY
06/04/2021	1:1000	T.NEZANDONYI
CHECKED BY	DRAWN BY	APPROVED BY
D. GWANGWADZA	N.MAHULA	T. NEZANDONYI

DRAWING NO	REV
P1808 - CIV - 100 - 07	**TD**

File Path