

CLIENT -

KOUGA MUNICIPALITY

PROJECT :-

PROPOSED SPORTS RECREATION PLAYING-AREA
AND BUILDING FACILITIES ON ERF 2551, SEA VISTA,
ST FRANCIS BAY.

DRAWN - K.E.E. ACKERMANN

DESIGN - K.E.E. ACKERMANN

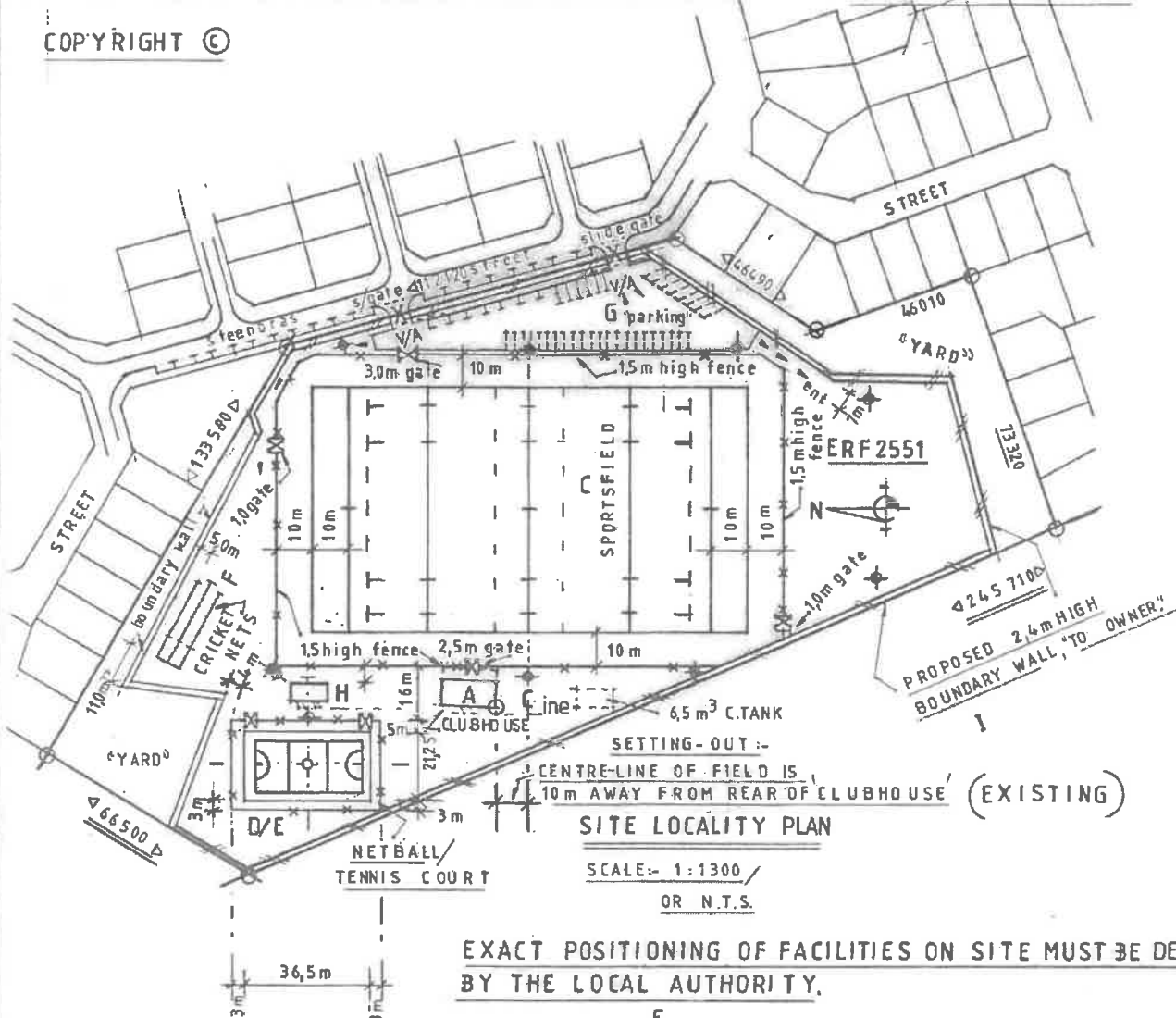
DATE - JUNE 2018

CHECKED :-

LEGEND :-

- A ▷ CLUBHOUSE / CHANGEROOMS
- B ▷ CARETAKER'S DWELLING
- C ▷ SPORTSFIELD
- D ▷ NETBALL COURT
- E ▷ TENNIS COURT
- F ▷ PRACTICE CRICKET NETS
- G ▷ PARKING AREA
- H ▷ ABLUTION FACILITIES
- I ▷ BOUNDARY WALLS

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TO BE READ IN-CONJUNCTION-WITH
OTHER LAYOUT PLANS.

SHEET NO 1 OF SHEETS

DRAWING N°

CLIENT - KOUSSA MUNICIPALITY

PROJECT - PROPOSED SPORTS RECREATION PLAYING-AREA AND BUILDING FACILITIES ON ERF 2551, SEA VISTA, ST FRANCIS BAY

DESIGN - KEEL ADENHORN
DATE - JUNE 2019
CHECKED -

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EAST (FRONT) ELEVATION 1:50

WEST (REAR) ELEVATION 1:50

SECTION A-A 1:50

GROUND STOREY FLOOR PLAN 1:50

A CLUBHOUSE / CHANGEROOMS



CEILING - 1" x 1" steel reinforced concrete
Floorboard ceiling board on 38 x 38 s.s. bracing at 400 c/c.
PROVIDE 140 MM THICK, PINK - ABSOLUTE INSULATION INTO CEILING.

NB: ALL WORK MUST BE IN COMPLIANCE WITH THE NATIONAL BUILDING REGULATIONS AND BUILDING STANDARDS ACT NO.103 OF 1977 AND TO COMPLY WITH ALL PARTS OF SANS 10400 STANDARDS, AND SANS 10400-XA, SANS 204, SANS 10250-1, CODE OF PRACTICES AND STANDARDS.

AREA -
EXISTING BUILDING = 91 m²
PROPOSED EXTENSION = 66 m²
GRAND TOTAL = 127 m²

DATE - JULY 2019
SCALE - 1:50

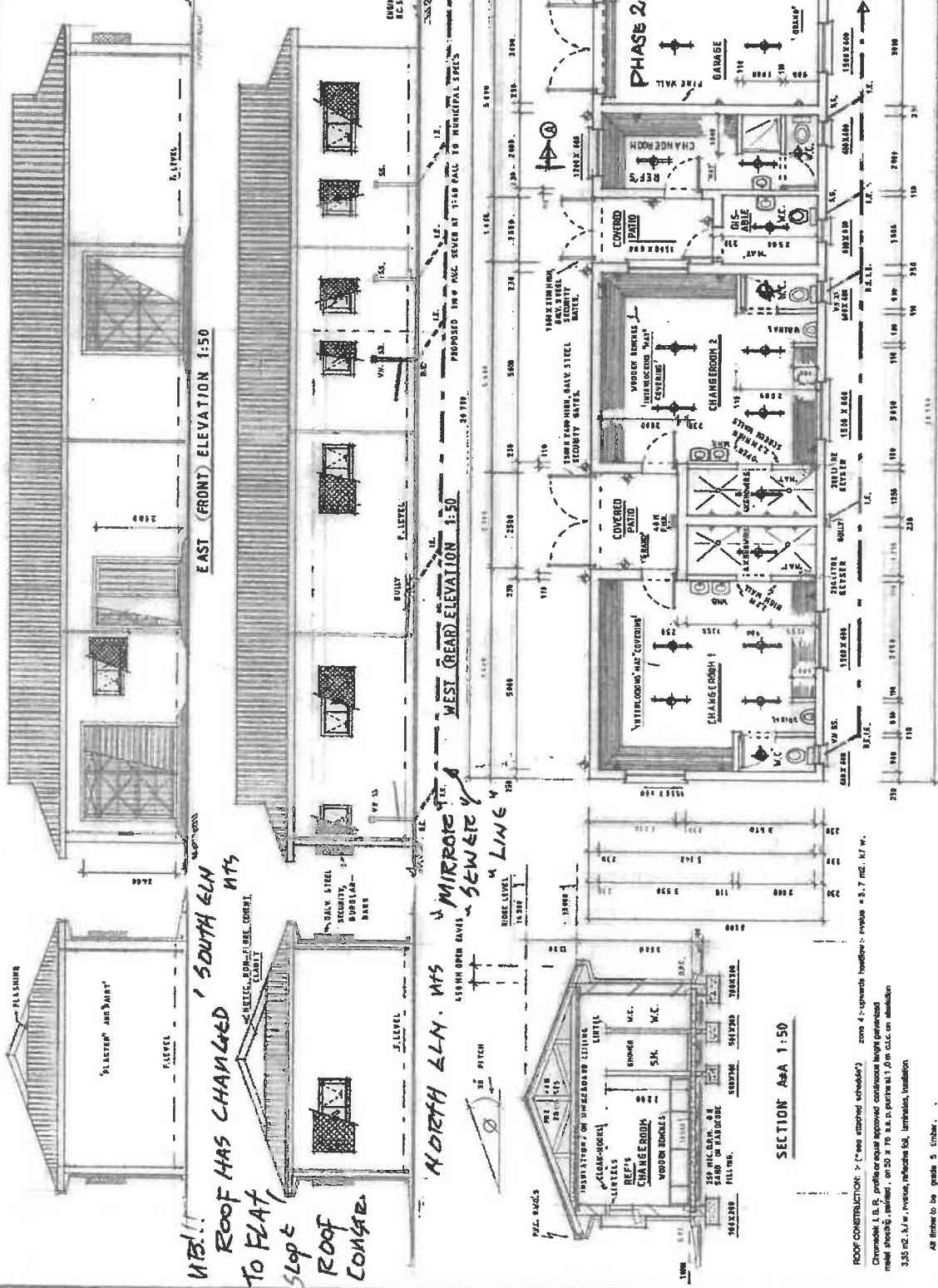
SHEET NO 2 OF SHEETS

UTB!!
ROOF HAS CHANGED
TO FLAT,
SLOPE
ROOF
CONGR.

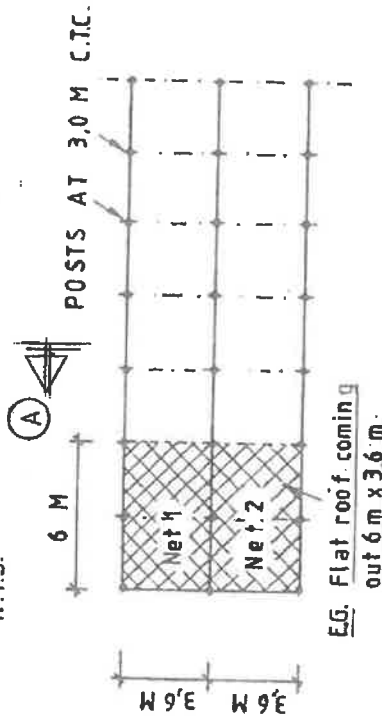
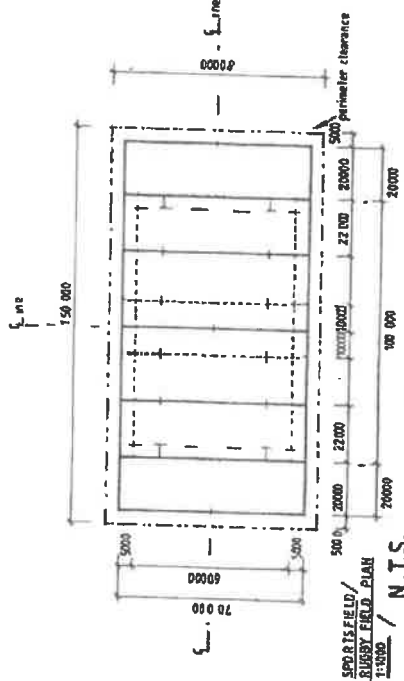
NORTH LN. WTS
MIRROR
SEWER
LINE

ROOF CONSTRUCTION: > 1" x 1" steel reinforced concrete
Zone 4 - upwards headwater = 3.7 m. L.T. W.
Chimneys: L.B.R. profile or equal approved continuous length galvanized
metal sheeting, painted, on 50 x 75 s.s. p. rafters at 1.0 m c/c on insulation
3.5 m. L.T. W. - inside, reflective foil, insulation, insulation
All timbers to be grade 5 timber.

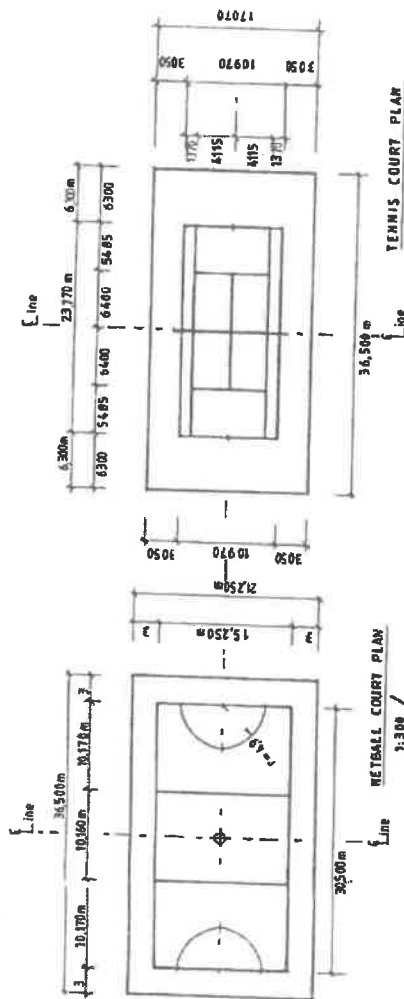
PVC DRAINAGE 60000 LIE OUTSIDE AND DOWNPIPES.
NON - FIRE CEMENT, MUREX, PASCOA BOARD. (each as required)







NB!!!
RF 193 REINFORCING PRACTICE CRICKET NETS
WELDED-MESH MUST BE LAID, 1:200 / N.T.S.
EMBEDDED INTO CONCRETE
FLOOR SLAB. CONCRETE FLOOR
SLABS MUST BE CAST IN 3.0 M X 3.6 M PANELS/DRAWN
AGREED UPON, WITH JOINT TEX SEALANT IN BETWEEN, SECTION A#A
PROVIDE 10MM MOVEMENT CONTROL JOINTS. 1:100



N.T.S.

ALL WORK AS PER ALL PARTS OF SANS 10082,
SANS 10400, SANS 10400XA, CODE OF STD
AND PRACTICES.

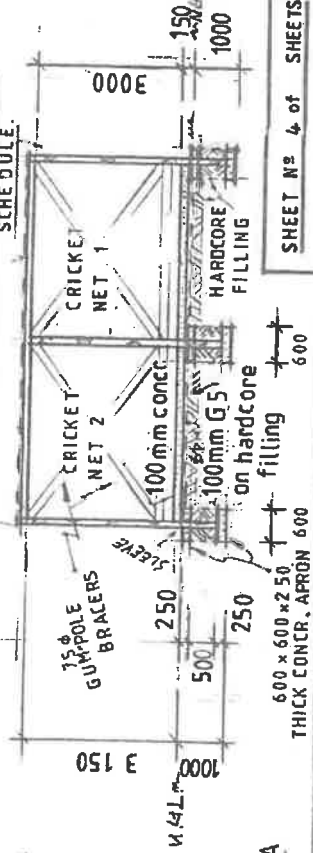
LEGEND
A - CLUBHOUSE / CHANGEROOMS
B - CARETAKERS DWELLING / OFFICE
C - SPORTS FIELD
D - NETBALL COURT
E - TENNIS COURT
F - PRACTICE CRICKET NETS
G - PARKING AREA

FLOOR FINISH, AS PER SCHEDULE
ON MIN. 30MM GRAND SCREENED ON
100MM CONCRETE ON 250 MICRON DPM. ON
30MM THICK SAND ON 100MM(MIN) COMPACTED
G5 MATERIAL ON COMPACTED HARDCORE
FILLING AS PER ENGINEER'S SPEC'S.

GENERAL LAYOUT PLAN

NB!!!
EXACT POSITIONING OF BUILDINGS ON SITE
WILL BE DETERMINED BY THE LOCAL AUTHORITY.

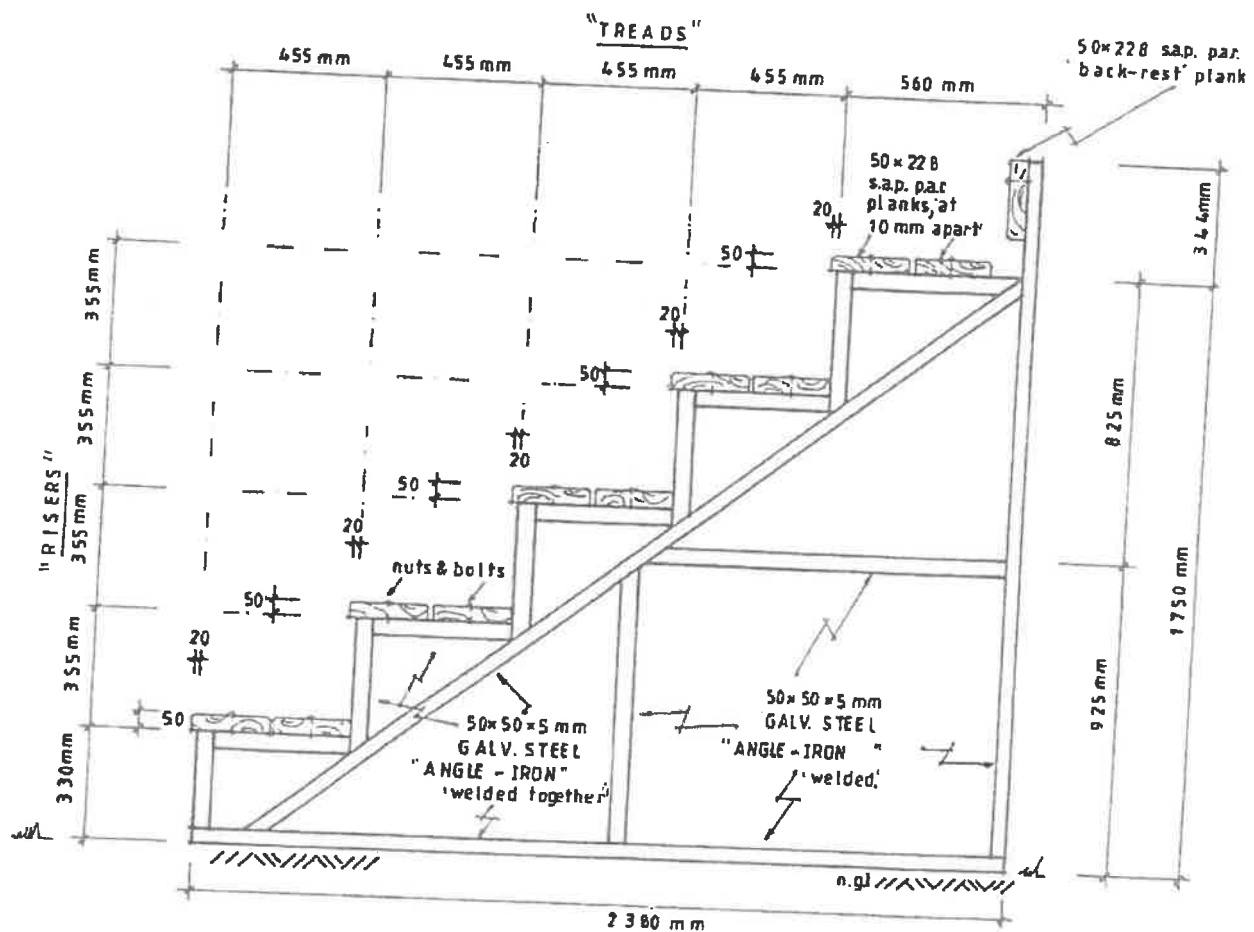
NET ON POLE-FRAMES AS PER ATTACHED
SCHEDULE.



Client	KOUGA MUNICIPALITY
Project	PROPOSED SPORTS RECREATION PLAYING-AREA AND BUILDINGS ON ERF
Scale	1:1000, 1:500
Design	K. ACKERMANN
Drawn	K. ACKERMANN
Date	JAN. 2018
Checked	
Copyright	
Drawing No.	2-5

SHEET N° 4 of 5 SHEETS

SHEET N^o 1 of 2



MUNISIPALITEIT JEFFREYSBAAI / BAY MUNICIPALITY

PROJEK/PROJECT

STANDARD-DETAIL of ENGINEERING "GRAND-STANDS"

SHEET N^o 5 OF SHEETS

skaal
scale 1 : 20

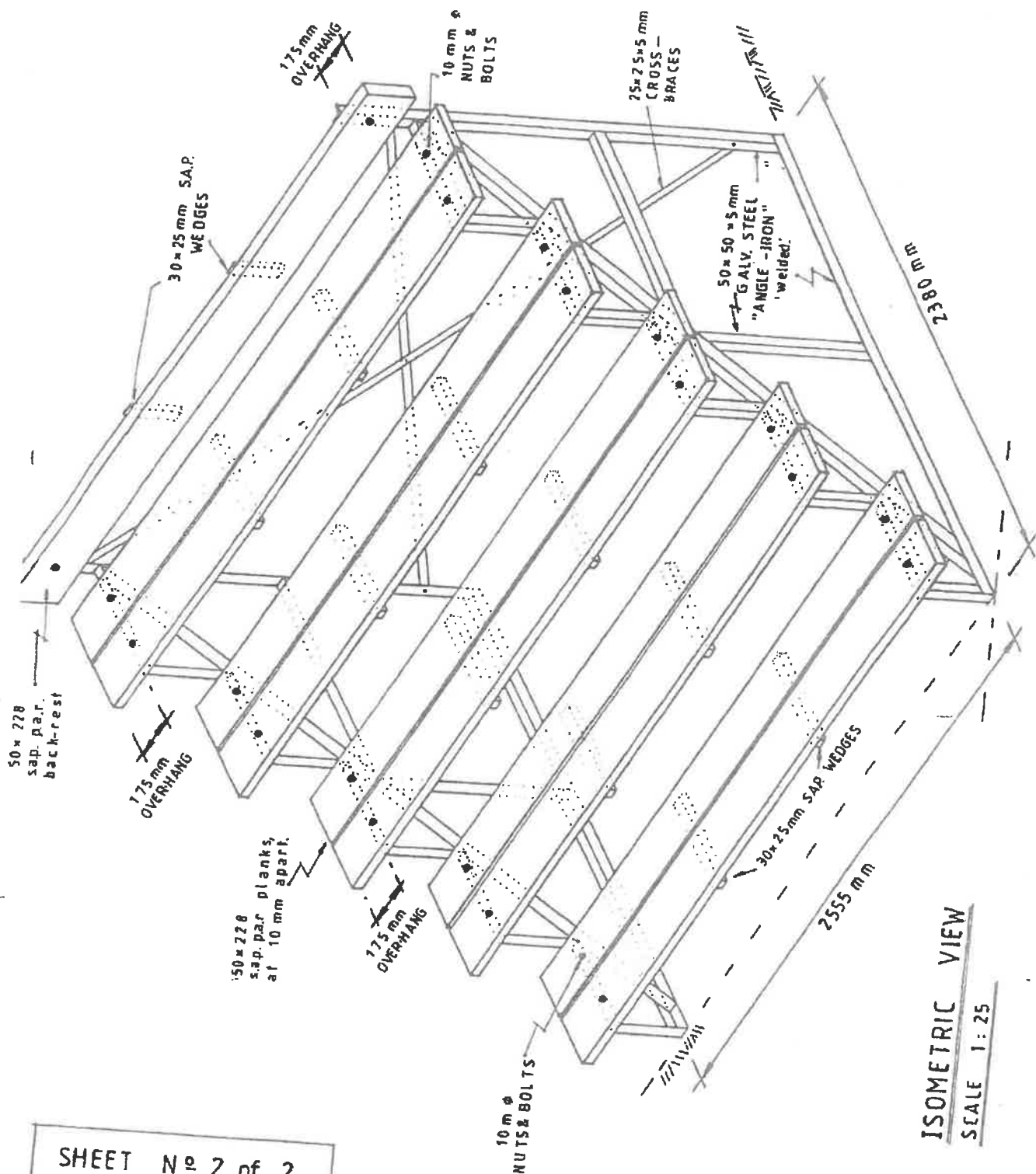
geteken
drawn K. ACKERMANN

nagesien
checked

datum
date

TEKENING N^o: STD
DRAWING No:

Regma



ISOMETRIC VIEW
SCALE 1:25

SHEET No 2 of 2

MUNISIPALITEIT JEFFREYSBAAI / BAY MUNICIPALITY

PROJEK/PROJECT

STANDARD DETAIL of ENGINEERING "GRAND-STANDS"

SHEET No 6 OF SHEETS

skaal
scale 1:25

geteken
drawn K.ACKERMANN

nagesien
checked

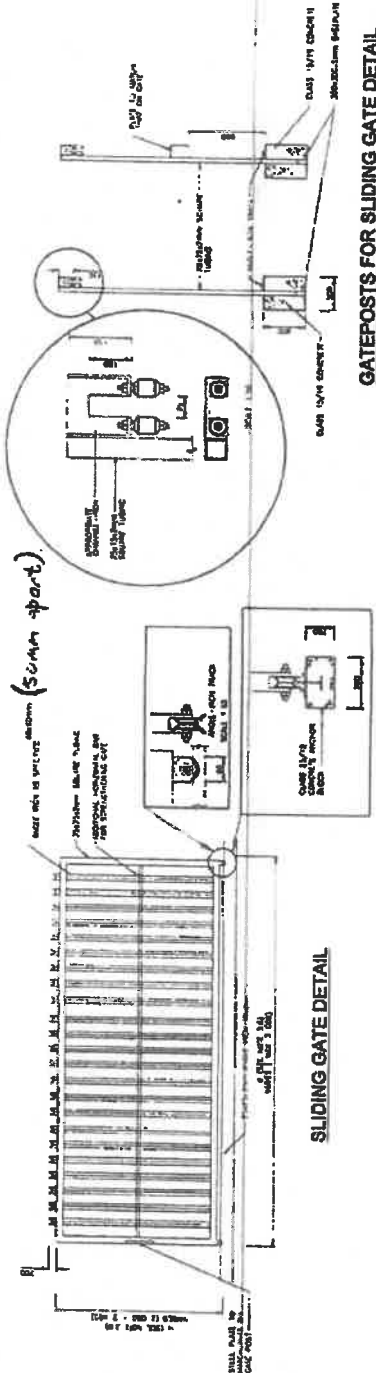
datum
date

TEKENING Nr:
DRAWING No: STD

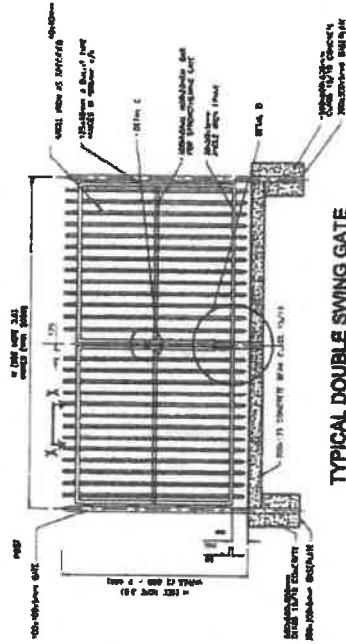
NOTES AND SPECIFICATIONS

1. GENERAL
 - a. All materials and workmanship shall comply with the latest editions of the following specifications:
 - b. Steel: ASTM A36, A572 Gr. 50, A588 Gr. 50.
 - c. Concrete: ACI 308, ACI 309.
 - d. Masonry: ACI 530, ACI 531.
 - e. Paint: SSPC-PA 1, SSPC-PA 2.
 - f. Welding: AWS D1.1, AWS D1.5.
 - g. Fabrication: AWS F4.1, AWS F4.2.
 - h. Erection: AWS E1.1, AWS E1.2.
 - i. Safety: OSHA 1910.66, OSHA 1910.133.
 - j. Environmental: EPA 40 CFR 155.551, EPA 40 CFR 155.552.
 - k. Noise: EPA 241.1, EPA 241.2.
 - l. Vibration: ASCE 7-10, ASCE 7-11.
 - m. Seismic: ASCE 7-10, ASCE 7-11.
 - n. Wind: ASCE 7-10, ASCE 7-11.
 - o. Snow: ASCE 7-10, ASCE 7-11.
 - p. Flood: ASCE 7-10, ASCE 7-11.
 - q. Earthquake: ASCE 7-10, ASCE 7-11.
 - r. Tornado: ASCE 7-10, ASCE 7-11.
 - s. Hurricane: ASCE 7-10, ASCE 7-11.
 - t. Other: ASCE 7-10, ASCE 7-11.
2. MATERIALS
 - a. Steel: ASTM A36, A572 Gr. 50, A588 Gr. 50.
 - b. Concrete: ACI 308, ACI 309.
 - c. Masonry: ACI 530, ACI 531.
 - d. Paint: SSPC-PA 1, SSPC-PA 2.
 - e. Welding: AWS D1.1, AWS D1.5.
 - f. Fabrication: AWS F4.1, AWS F4.2.
 - g. Erection: AWS E1.1, AWS E1.2.
 - h. Safety: OSHA 1910.66, OSHA 1910.133.
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 - k. Vibration: ASCE 7-10, ASCE 7-11.
 - l. Seismic: ASCE 7-10, ASCE 7-11.
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 - n. Snow: ASCE 7-10, ASCE 7-11.
 - o. Flood: ASCE 7-10, ASCE 7-11.
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 - c. Masonry: ACI 530, ACI 531.
 - d. Paint: SSPC-PA 1, SSPC-PA 2.
 - e. Welding: AWS D1.1, AWS D1.5.
 - f. Fabrication: AWS F4.1, AWS F4.2.
 - g. Erection: AWS E1.1, AWS E1.2.
 - h. Safety: OSHA 1910.66, OSHA 1910.133.
 - i. Environmental: EPA 40 CFR 155.551, EPA 40 CFR 155.552.
 - j. Noise: EPA 241.1, EPA 241.2.
 - k. Vibration: ASCE 7-10, ASCE 7-11.
 - l. Seismic: ASCE 7-10, ASCE 7-11.
 - m. Wind: ASCE 7-10, ASCE 7-11.
 - n. Snow: ASCE 7-10, ASCE 7-11.
 - o. Flood: ASCE 7-10, ASCE 7-11.
 - p. Earthquake: ASCE 7-10, ASCE 7-11.
 - q. Tornado: ASCE 7-10, ASCE 7-11.
 - r. Hurricane: ASCE 7-10, ASCE 7-11.
 - s. Other: ASCE 7-10, ASCE 7-11.

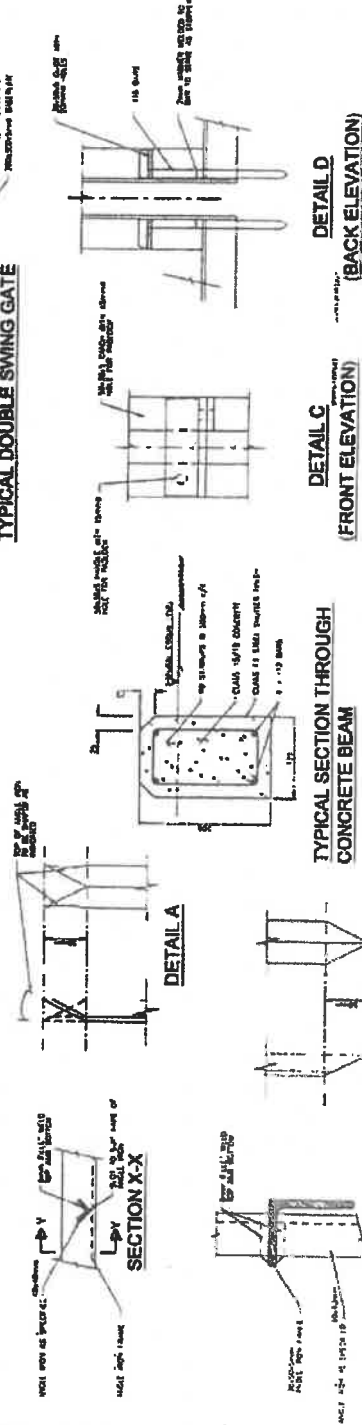
GENERAL LAYOUT PLAN



GATEPOSTS FOR SLIDING GATE DETAIL



TYPICAL DOUBLE SWING GATE



SHEET NO. 7 OF 7 SHEETS

DRAWING NO. G

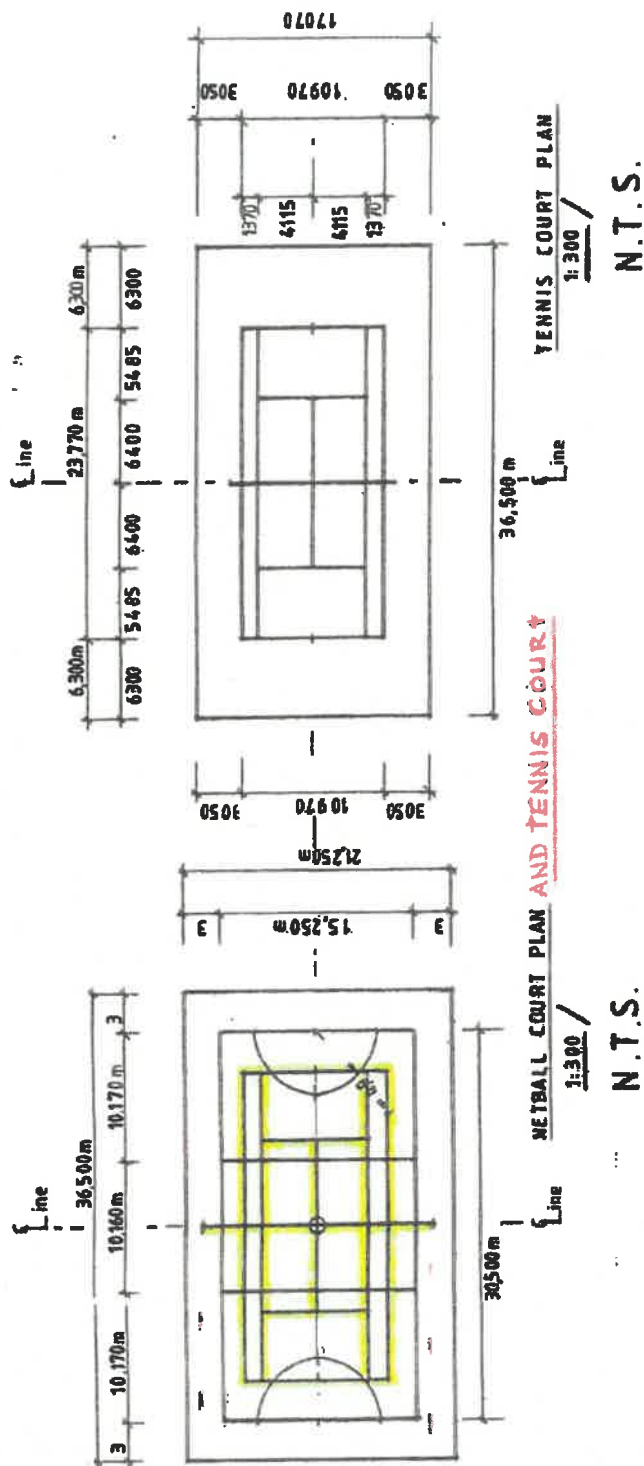
KOUKA MUNICIPALITY

PROPOSED SPORTS RECREATION
PLAYING AREA AND
BUILDINGS ON ERF

SCALE: 1:1000
DATE: JAN. 2010
DRAWN: R. KACERMAN
CHECKED: [Signature]

DETAIL A
DETAIL B
DETAIL C
DETAIL D
DETAIL E
DETAIL F
DETAIL G
DETAIL H
DETAIL I
DETAIL J
DETAIL K
DETAIL L
DETAIL M
DETAIL N
DETAIL O
DETAIL P
DETAIL Q
DETAIL R
DETAIL S
DETAIL T
DETAIL U
DETAIL V
DETAIL W
DETAIL X
DETAIL Y
DETAIL Z

HOLES OR AS AGREED UPON
ON SITE BY
CLIENT



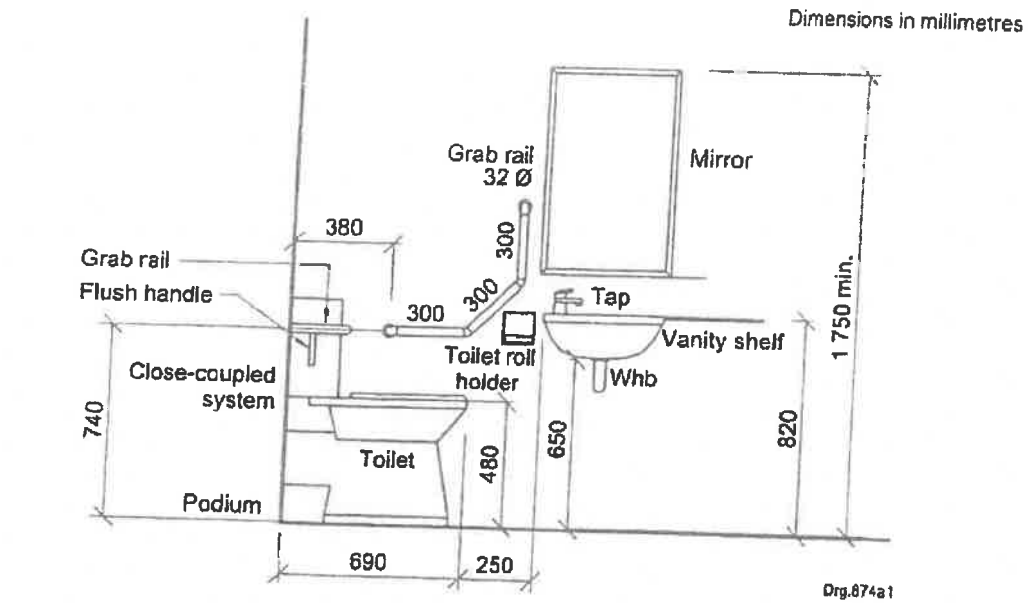
LINE MARKINGS:-

NETBALL COURT MARKINGS = YELLOW

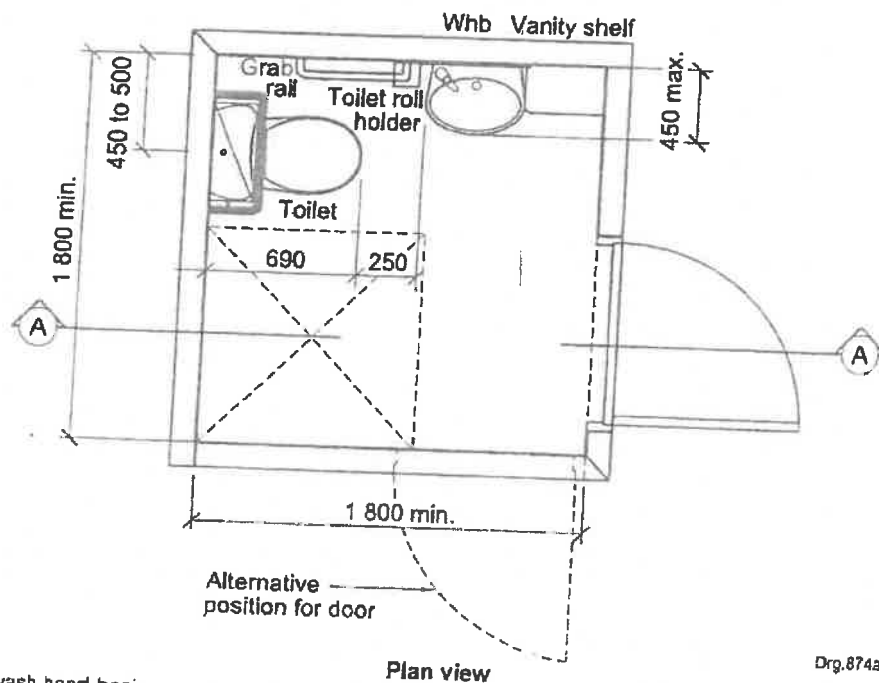
TENNIS COURT MARKINGS = WHITE

LINE WIDTH = 50 MM

LINE WIDTH = 50 MM



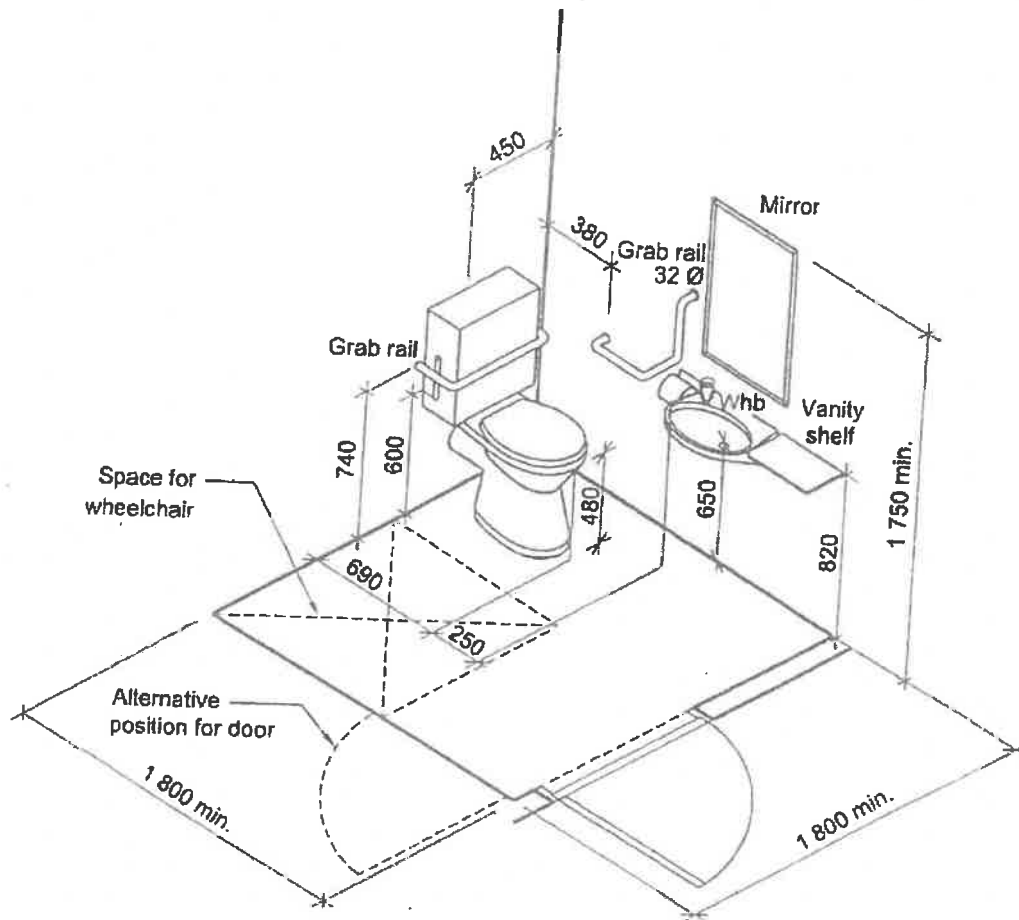
Elevation A-A



Whb = wash hand basin

Figure D.2 — Plan and elevation of a typical facility with a close-coupled toilet system

Dimensions in millimetres

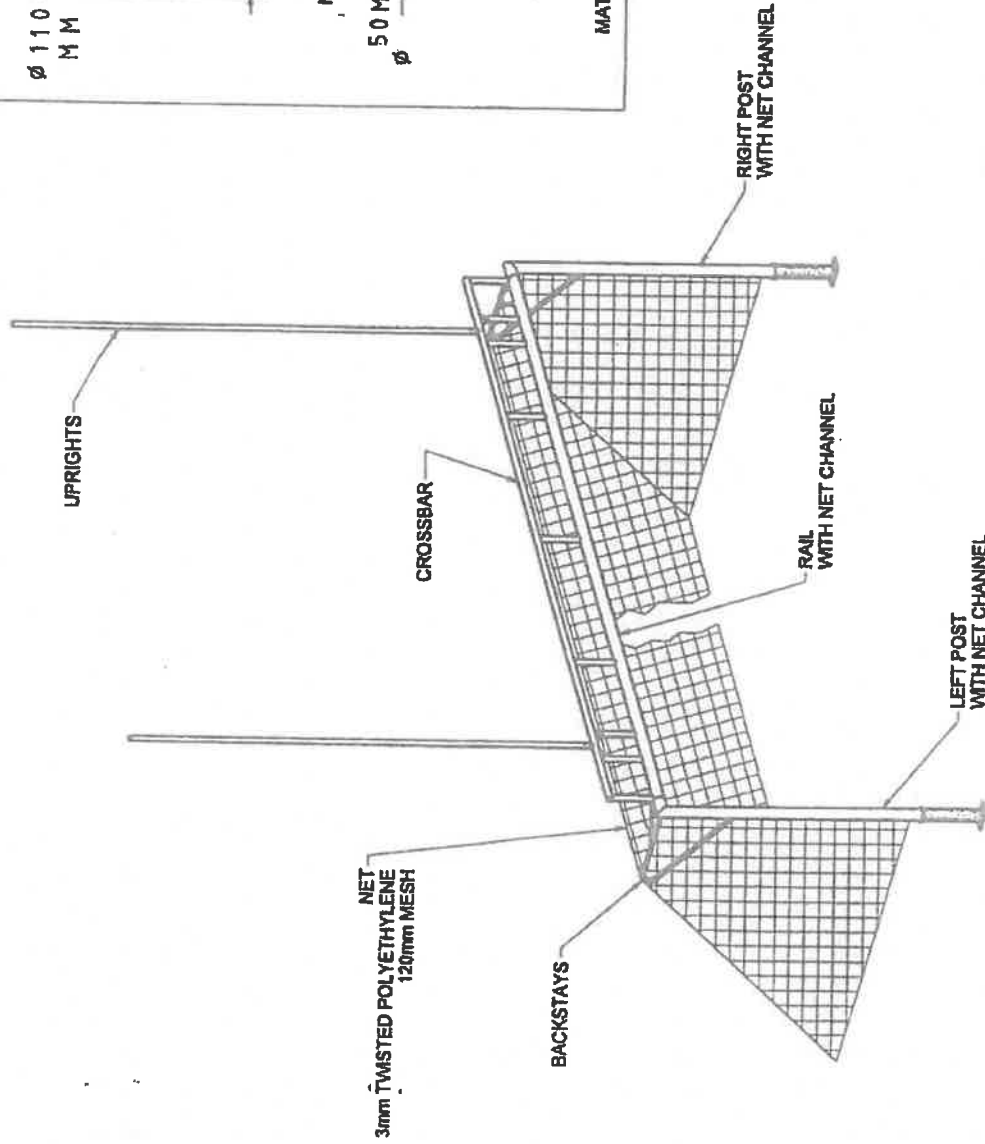
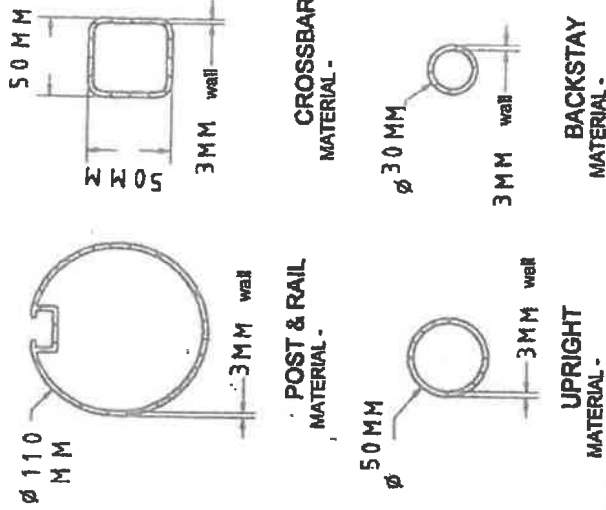


Drg. 674

Whb = wash hand basin

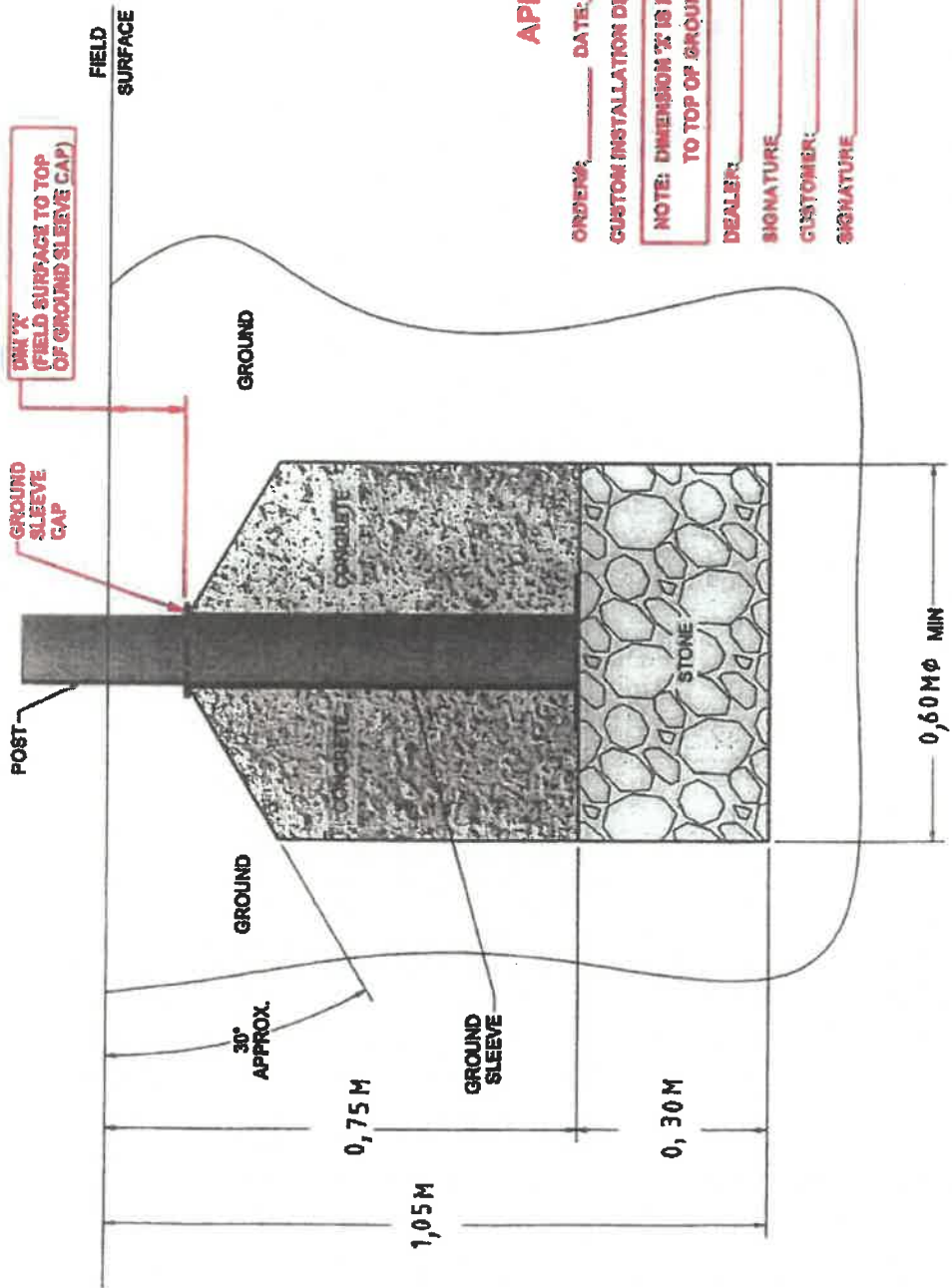
Figure D.1 — Layout of a typical facility with a close-coupled toilet system

MATERIAL DETAILS



GENERAL LAYOUT PLAN

Client: KOUGA MUNICIPALITY	
Project: PROPOSED SPORTS RECREATION PLAYING-AREA AND BUILDINGS ON ERF	
Scale: 1:1000 - 1:300	Checked: ☒ copyright
Design: KACKERMANN	Drawn: KACKERMANN
Date: JAN. 2018	
Drawing No: - G	



APPROVAL

ORDER NO. _____ DATE _____ QUANTITY _____
 CUSTOM INSTALLATION DEPTH (DIM'X) 1 _____ 2 _____
 NOTE: DIMENSION 'X' IS FROM FIELD SURFACE TO TOP OF GROUND SLEEVE CAP
 DEALER: _____ SIGNATURE _____ DATE _____
 CUSTOMER: _____ SIGNATURE _____ DATE _____

GENERAL LAYOUT

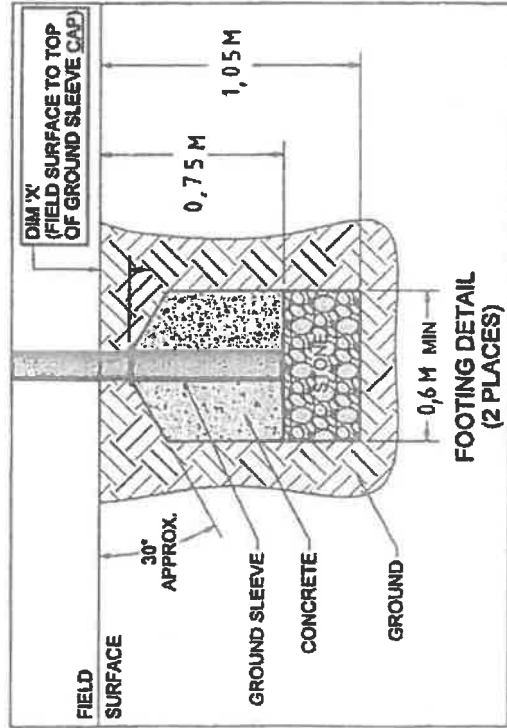
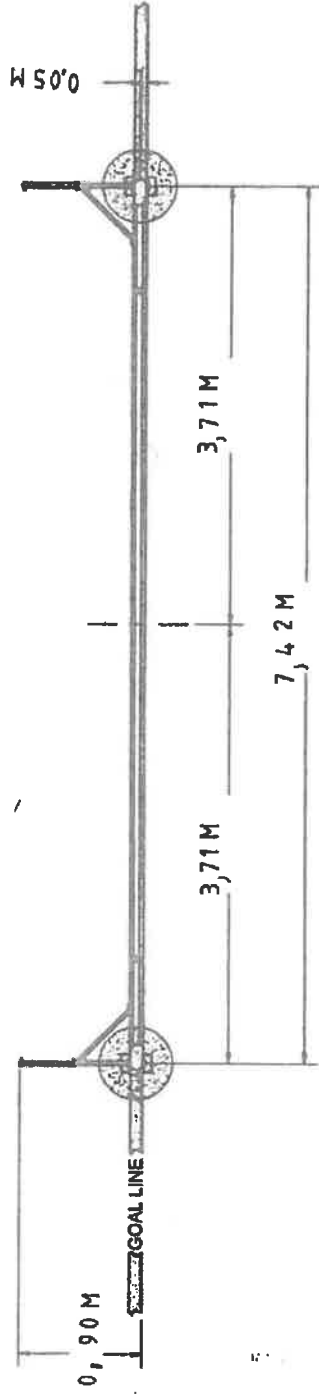
PLAN

SHEET 12 OF SHEETS

Finish Info.

Client - KOUGA MUNICIPALITY	
Project - PROPOSED SPORTS RECREATION PLAYING-AREA AND BUILDINGS ON ERF	
Scale - 1:1000 - 1:300	Checked -
Drawn -	Date -
Drawn - K. ACKERMANN	Date - JAN. 2016
Drawing No - 6	

OVERHEAD VIEW



NOTES:

- 1) DIMENSIONS ARE FOR PLANNING PURPOSES. INSTALLATION MUST BE IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS.

MATERIAL REQUIRED, BUT NOT SUPPLIED

- 0.4 cubic yard - CONCRETE
 - 0.3 cubic yard - CLEAN STONE (1/4" - 3/4")
- ABOVE AMOUNTS ARE PER GOAL INSTALLATION

GENERAL LAYOUT

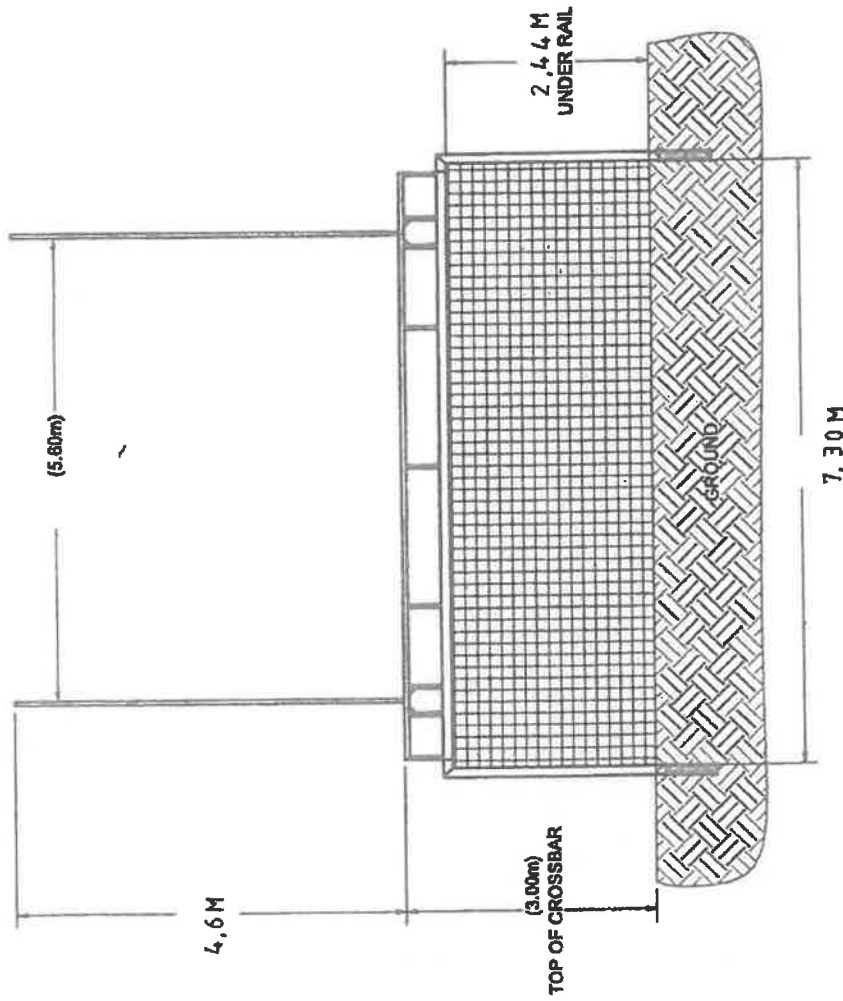
PLAN

SHEET NO. 13 OF SHEETS

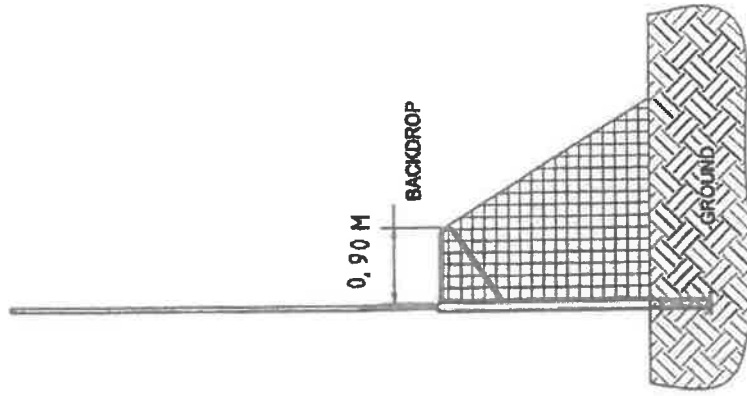
Client	KOUGA MUNICIPALITY
Project	PROPOSED SPORTS RECREATION PLAYING-AREA AND BUILDINGS ON ERF
Scale	1:1000, 1:500
Drawn	K. AGERMANN
Checked	K. AGERMANN
Date	JAN. 2010
Drawing No.	Nº 6

Finish Info.

FRONT VIEW



SIDE VIEW



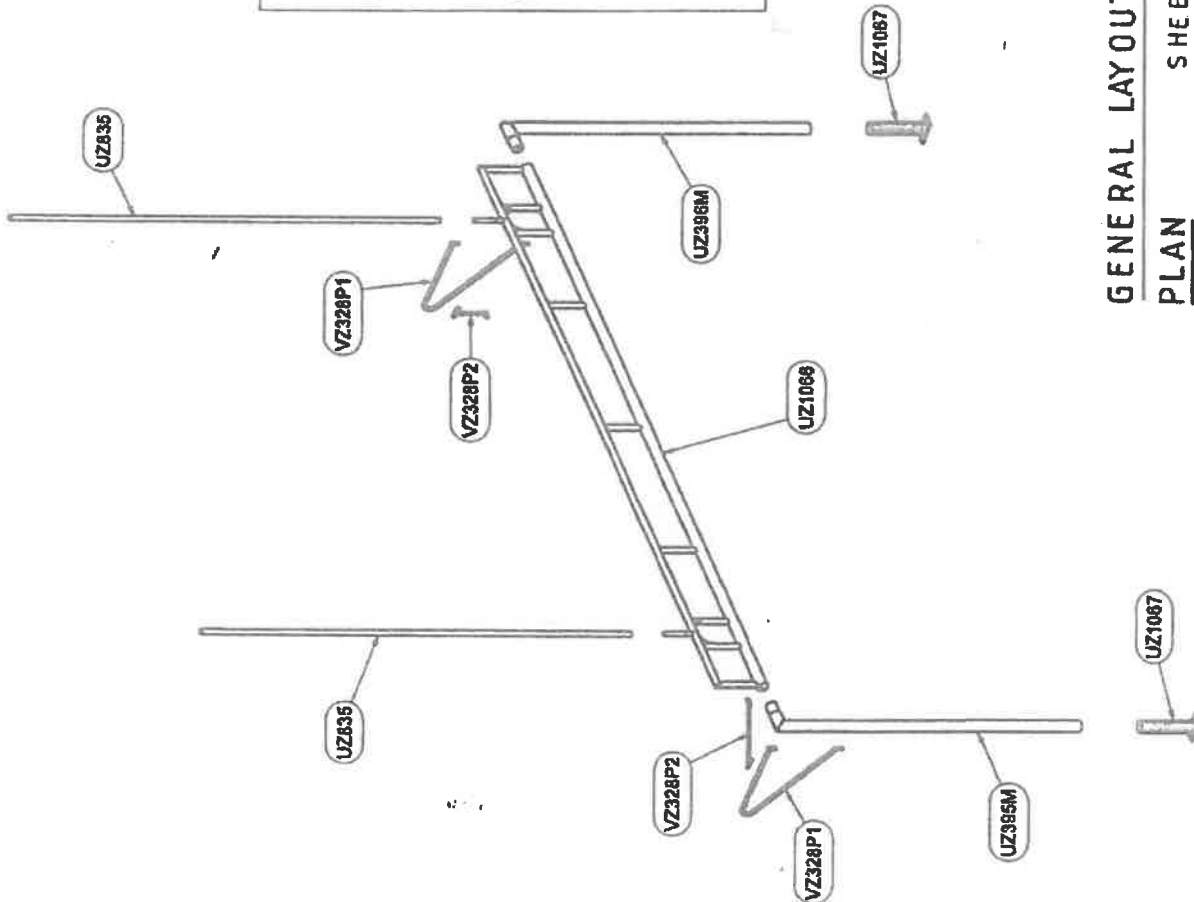
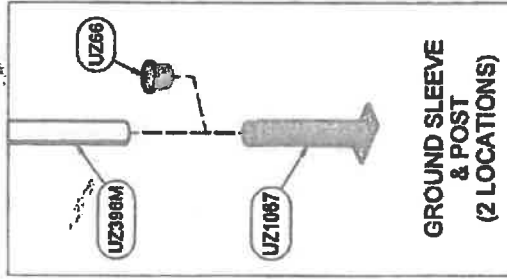
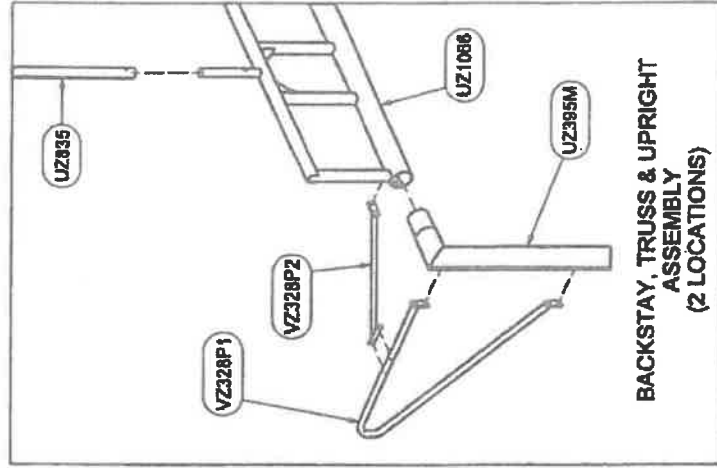
GENERAL LAYOUT
PLAN

SHEET NO 14 OF SHEETS

City: KOUGA MUNICIPALITY	
Project: PROPOSED SPORTS RECREATION PLAYING AREA AND BUILDINGS ON ERF	Copyright: ©
Scale: 1:1000, 1:500	Checked: >
Design: K. ACHERMAN	Drawn: K. ACHERMAN
Date: JAN, 2010	
Drawing No: 1-6	

Parts List	
Part #	Qty
UZ1068	1
UZ395M	1
UZ395M	1
VZ328P2	2
VZ328P1	2
UZ835	2
UZ1067	2
UZ866	2
0050A	1

Description
Truss, Custom Rugby/Soccer
2D301 FRONT POST RIGHT PART (B)
2D301 FRONT POST LEFT PART (A)
BACKSTAY BRACE
BACKSTAY
Upright, 2D301 Football/Soccer
Ground Sleeve
GROUND SLEEVE CAP
NET, 3MM ROPE, 120MM MESH

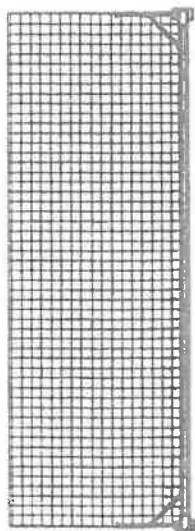


SHEET NO. 15 OF SHEETS

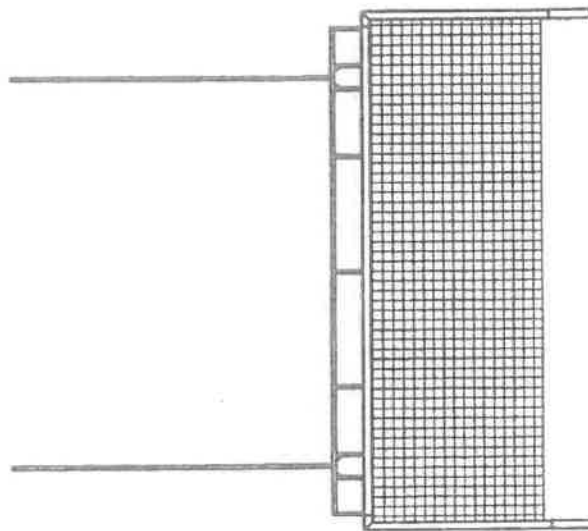
Client	KOUGA MUNICIPALITY
Project	PROPOSED SPORTS RECREATION PLAYING-AREA AND BUILDINGS ON ERF
Scale	1:1000, 1:300
Design	K. ACKERMAN
Drawn	K. ACKERMAN
Date	JAN. 2018
Checked	
Copyright	

Finish Info.

DRAWING NO. 6



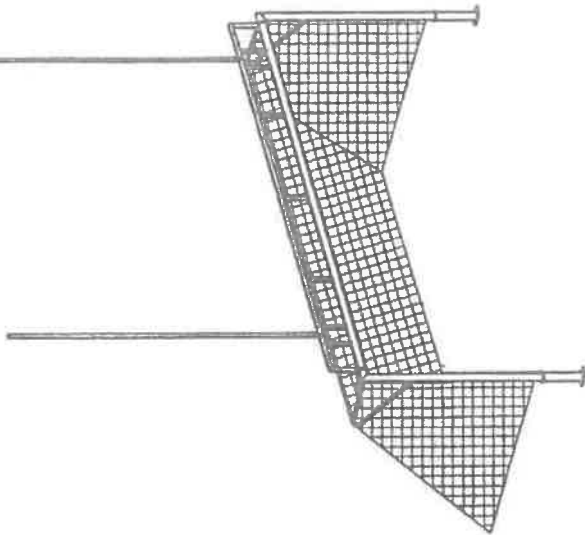
TOP VIEW



FRONT VIEW



RIGHT VIEW



ISOMETRIC VIEW

GENERAL LAYOUT PLAN

SHEET NO 16 OF SHEETS

Client -		KOUGA MUNICIPALITY	
Project -		PROPOSED SPORTS RECREATION PLAYING-AREA AND BUILDINGS ON ERF	
Scale -	1:1000, 1:2000	Checked -	(Signature) Copyright
Drawn -	K. ACKERMANN	Date	JAN: 2016
DRAWING NO :- 6			

TECHNICAL REQUIREMENTS/ SPECIFICATIONS FOR LED LIGHTING.

SPECIFICATIONS DOCUMENT



A II

1.1. REPLACEMENT FITTING FOR 1000HPS FLOOD LIGHT WITH LED FLOODLIGHT:

The luminaire shall be designed in accordance with the following requirements:

- 1.1.1. Design life: In excess of 25 years
- 1.1.2. The replacement (upgrading and service) of the LED unit and the driver/power supply shall be possible without removing the whole luminaire but by means of replacing only the optical/gear compartment by means of a hinging mechanism.
- 1.1.3. The luminaire shall incorporate a temperature sensor which monitors the temperature of the LEDs on the PCBs. Once a critical temperature is reached, the current shall be reduced to a safe temperature level. The temperature sensor shall not completely switch off the LEDs at high temperatures, which shall facilitate maintenance to be undertaken during daylight hours.
- 1.1.4. The luminaire shall incorporate a surge protection device of 20kA minimum.
- 1.1.5. Minimum IP rating of the light compartment, including driver compartment: IP66.
- 1.1.6. The protector shall be smooth, for easy cleaning, and shall be manufactured of tempered glass (IK08).
- 1.1.7. It shall be certified, in terms of IEC 60598, to operate at an ambient temperature of 35°C. The thermal design shall be particularly designed for African exterior conditions, i.e. high temperatures, high pollution, corrosion resistant.
- 1.1.8. The cooling fins shall be designed in such a manner to prevent the accumulation of dirt, thus ensuring the continuous effective cooling. The cooling rib height to width ratio may not exceed 0.7. Additionally the top surface shall be curved in shape.
- 1.1.9. The LED life expectancy shall be 60,000 hours at 80% lumen maintenance. (Documentary evidence from the LED manufacturer, by means of an appropriate datasheet, confirming the statistical correlation, shall be provided).
- 1.1.10. Use of high efficiency LED's (>100 lumens/watt: Absolute photometry) CRI > 70. Documentary evidence of compliance to this clause shall be submitted with the tender.
- 1.1.11. Colour temperature shall be neutral white (4 000K). A report from the LED vendor, for LED's used in the luminaire, shall be submitted, which shall include the following documentary evidence: Measured LED junction temperature for a given test condition and extrapolated for an ambient temperature of 35°C.
- 1.1.12. LED drive current.
- 1.1.13. LED manufacturer data that clearly correlates LED junction temperature and LED drive current to lumen maintenance.
- 1.1.14. The LED datasheets, indicating the Byy, Lxx data, as provided by the LED manufacturer.
- 1.1.15. Documentary evidence, confirming that the failure of one LED will not cause additional LED's to fail.
- 1.1.16. Direct conduction & maximized surface for external heat exchange shall be provided.
- 1.1.17. The luminaire housing shall be constructed of marine grade high pressure die cast LM6 (EN 1706 AC-44300) aluminum. Tenderers shall submit a metallurgical report from an

" B"

independent metallurgist confirming the grade of aluminum for all the luminaires offered. The housing shall be robustly constructed, weather-proof, hail-proof, insect-proof, corrosion proof, ultraviolet light resistant and vandal resistant.

- 1.1.18. The control gear compartment shall be either incorporated into the luminaire housing or be remote mounted onto the luminaire.
- 1.1.19. The power supply connection must take place inside the luminaire.
- 1.1.20. The luminaire manufacturer shall be based in the Republic of South Africa

1 design shall be submitted of each of the following, to ensure minimum lighting levels are obtained, using the most efficient luminaire available for the supplier. The below designs **MUST** be submitted with your pricing.

High Mast Lighting

- Single mast with 8 LED luminaires
- Minimum lighting level of 0.4 lux
- Maintenance factor to be used – 0.8
- Lux levels between the mast must be indicated too

SPECIAL CONDITIONS:

1. Successful supplier must provide all SANS / IEC certificates upon delivery.
2. All spare components must be readily available within South Africa
3. Luminaires must be manufactured within an ISO 9001 accredited factory

150x75mm FIG. 12
RECTANGULAR EDGE KERB

100mm THICK G5 MATERIAL
COMPACTED TO 93% MOD
AASHTO DENSITY.

SEE DETAIL 1

500

150

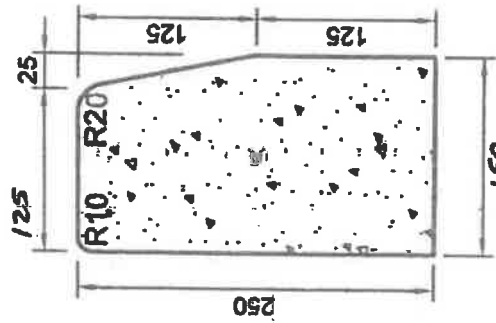
100

150

NOTE: THE FOLLOWING ADDITIONAL LAYERS ARE TO BE ADDED BETWEEN
LAYERS 3 AND 4 DEPENDING ON THE CBR OF INSITU MATERIAL

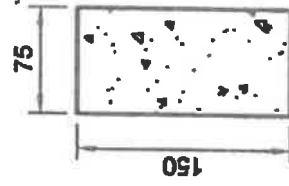
CBR	MATERIAL
>15	NONE.
15-7	G7 COMPACTED TO 93% MOD AASHTO DENSITY
<7	G9 COMPACTED TO 90% MOD AASHTO DENSITY

SHEET NO 19 OF SHEETS



**PRECAST BARRIER KERB
SABS 927 FIG. 4**

SCALE 1:5



**PRECAST UNIT KERB
SABS 927 FIG. 12**

SCALE 1:5

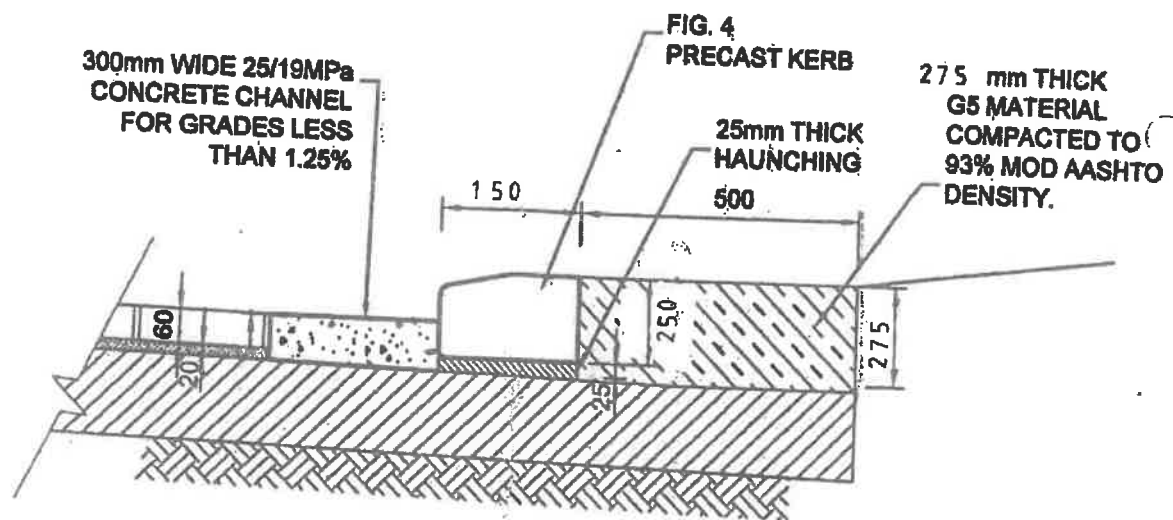
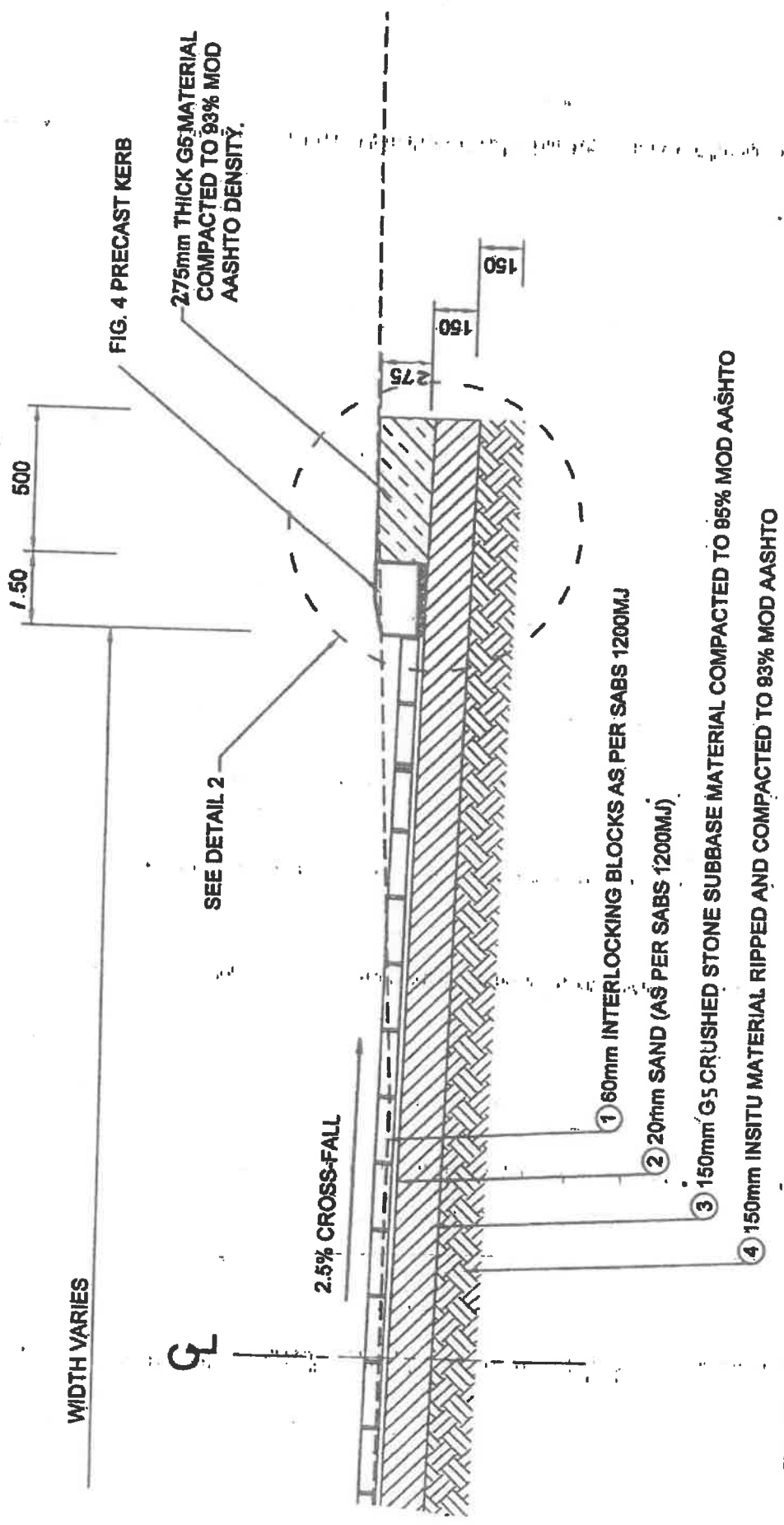


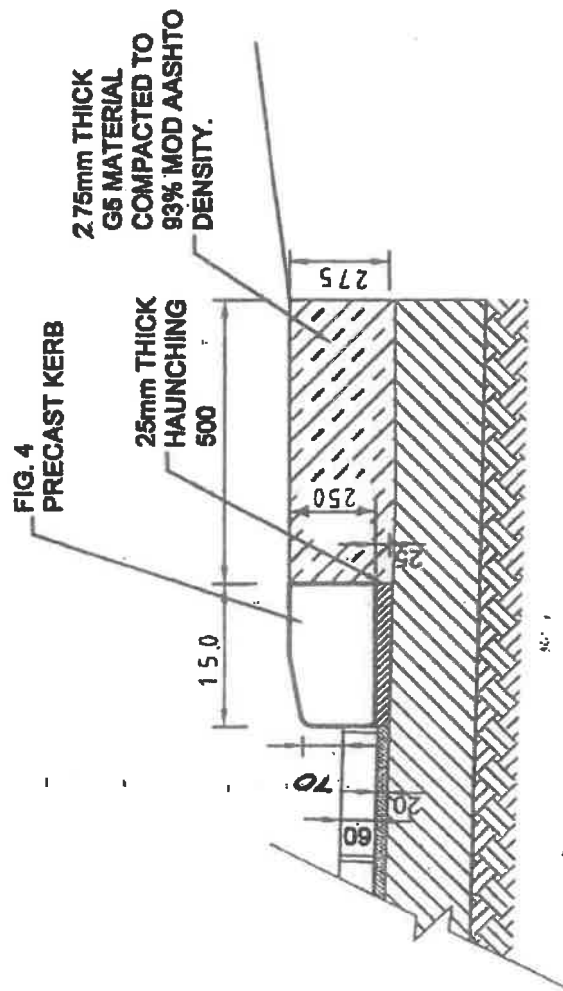
FIG. 4 KERB UNIT WITH 300mm WIDE CHANNEL
SCALE 1:12.5

SHEET NO 21 OF SHEETS

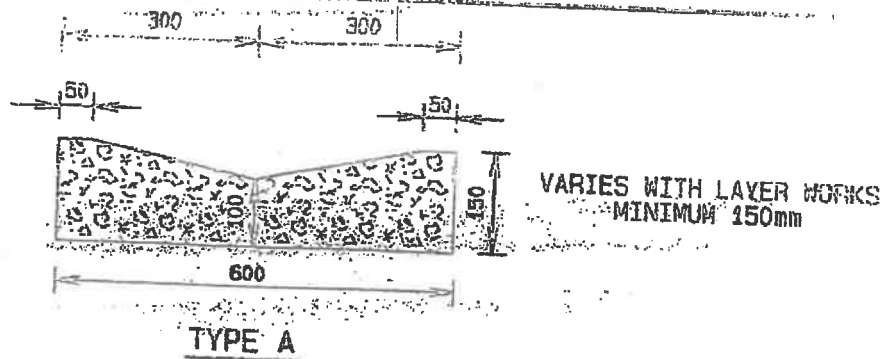


TYPICAL ROAD CROSS SECTION

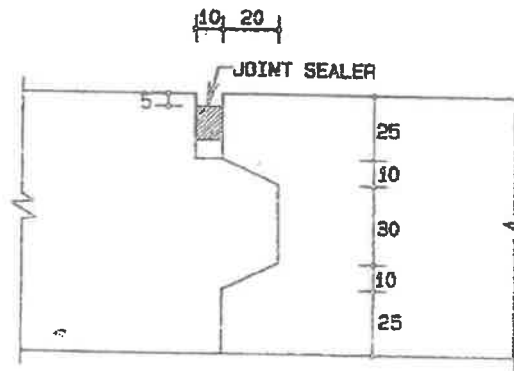
SCALE 1:20



SHEET NO. 24 OF SHEETS



4. JOINT TO BE SEALED USING AN APPROVED SEALANT AS DIRECTED BY THE ENGINEER.



DO NOT SCALE FROM DRAWING

SHEET NO 25 OF SHEETS

NOTES :

30MPa CONCRETE. IN-SITU MATERIAL TO BE OF G5 SUBBASE QUALITY, COMPACTED TO MINIMUM 95% MOD. A.A.S.H.T.O. DENSITY.
FINISH TO BE WOOD FLOATED.
CONTRACTION JOINTS AT MAXIMUM INTERVAL OF 4m.

DATE OF LAST REVISION		STANDARD DETAILS	DRAWING NO.
PREPARED BY :			
CONTRACTS DIVISION		CAST IN-SITU CONCRETE CHANNEL	

1.4.15 Rugby Union

Rugby Union is an outdoor sport played by two teams of 15 players with a spheroid-shaped ball. The aim of the game is to score as many points as possible. The team that scores the greatest number of points is the winner. Points are scored by scoring a try or kicking a goal or conversion.

The game is played on a natural grass field that is 100 metre in length (excluding the in-goal area) and the width may vary but may not be more than 70 metres wide. The in-goal area may not be less than 10 metres and not more than 22 metres deep.

The "H-Shaped" goal posts, which are 5.60 metre apart and have a crossbar situated 3.0 metre above the playing field, are situated on the centre of the goal line.

The field is marked as follows: (See Drawing on next page)

- To the perimeter of the field
- A goal line on each side of the field
- A 22 metre "drop out" line across the width of the field on both sides of the field.
- A halfway line across the width field.
- A 10 metre dotted line across the field on either side of the halfway line.
- A 5 metre dotted line across the field situated 5 metres away from the goal line within the 22 metre "drop out" zone, to both sides of the field.
- A 5 metre dotted line, situated on the inside of the side line on both sides of the field.
- A 15 metre dotted line, situated on the inside of the side lines on both sides of the field.

Flags are positioned at each corner, at the ends of the goal line, at the ends of the 22 metre line and at the ends of the halfway line.

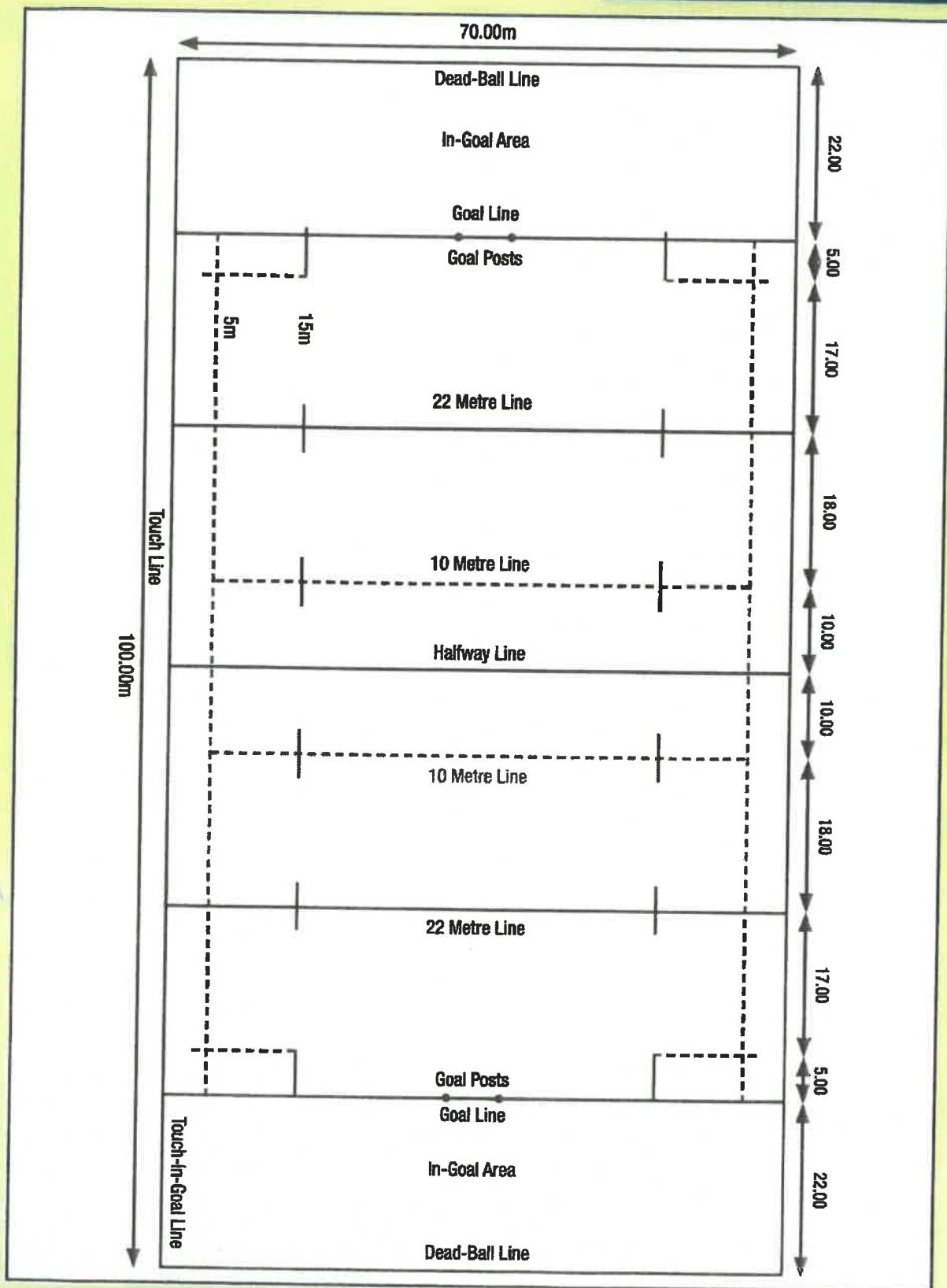
The ball

The ball is oval in shape and is made from leather or synthetic materials and should resist water.

The ball has the following dimensions:

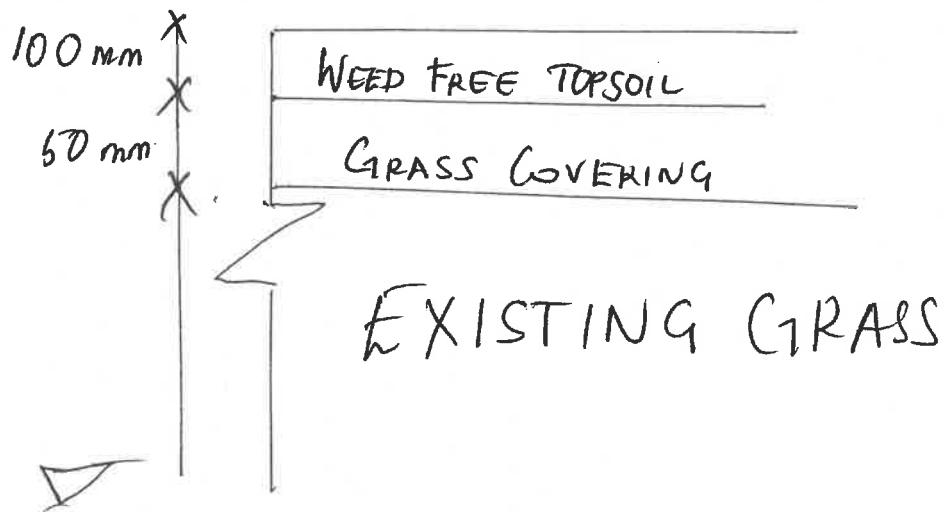
- Length in line 80 – 300 mm
- Circumference (end on) 760 – 790 mm
- Circumference (width) 580 – 620 mm
- Mass 400 – 440 grams
- Pressure at sea level 0.67 – 0.70 kg per cm²

Rugby Field



PITCH (SOCCER/RUGBY FIELD)

LAYERWORKS CROSS-SECTION



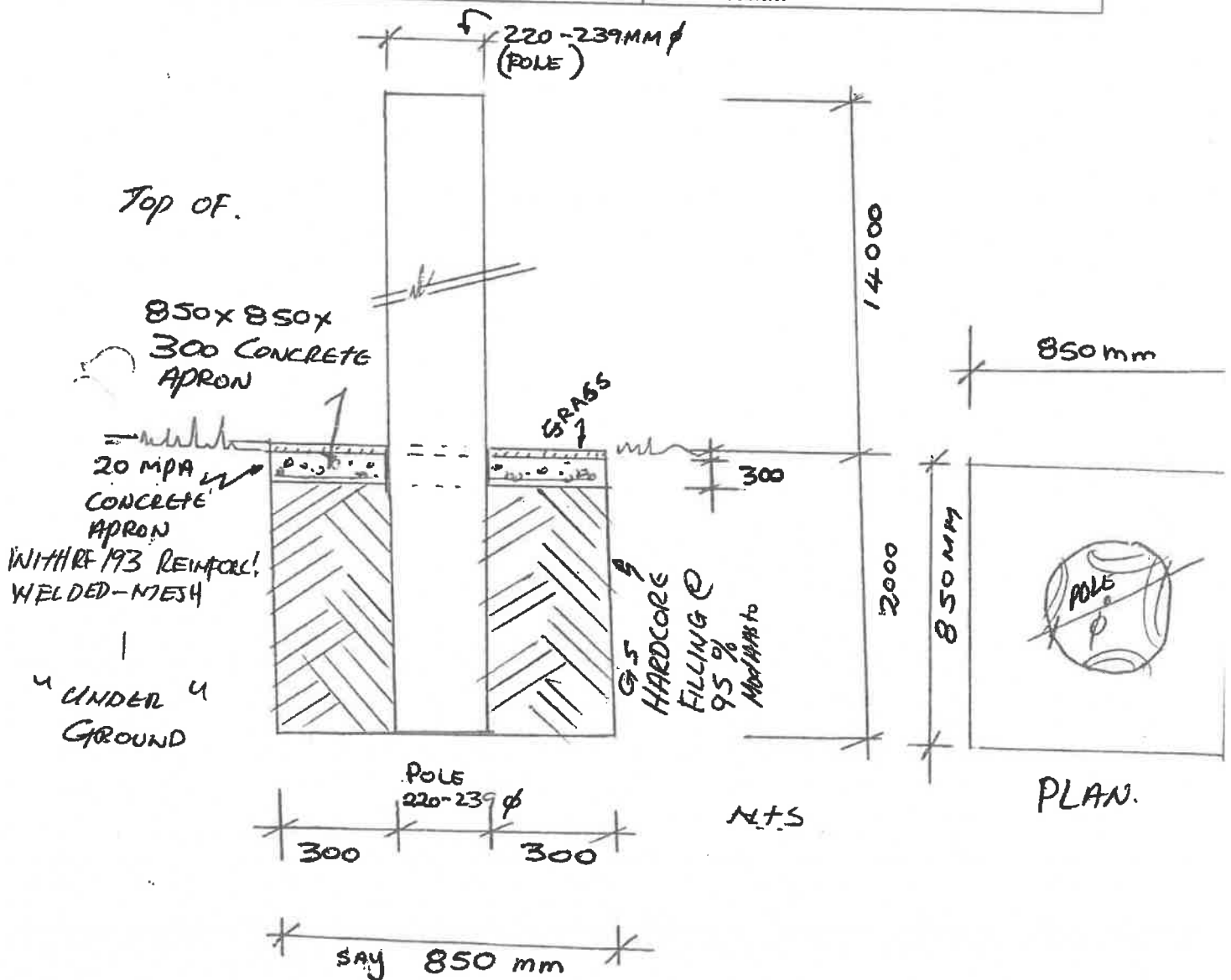
DRAWING N.T.S

High Mast Light Pole Specification

Application:

Eucalyptus poles, kiln dried and pressure treated with Creosote, to SANS 754 specification, for use in high mast lightning installations.

Species	Eucalyptus – grandis – grandis hybrid – saligna – cloeziana
Hazard Class	H4 (ground contact)
Strength	55 MPa/75 MPa
Preservative Specification	SANS 616
Min. Average Retention	115 Kg/m3
Min. Preservative Penetration	15 mm
Length	14m ABOVE NATURAL GROUND LEVEL
Top Diameter	220 – 239mm

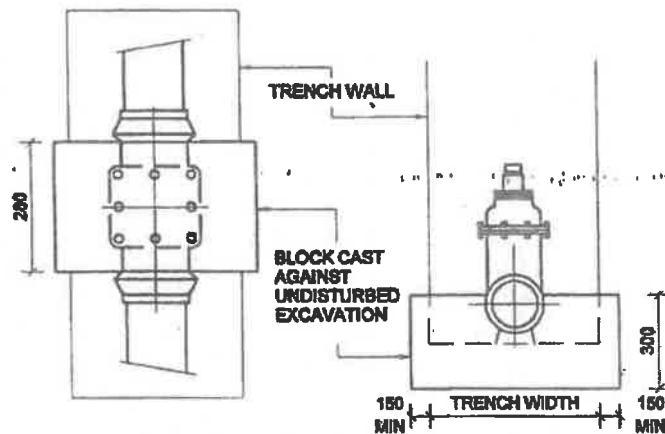


High Mast Light Pole Specification

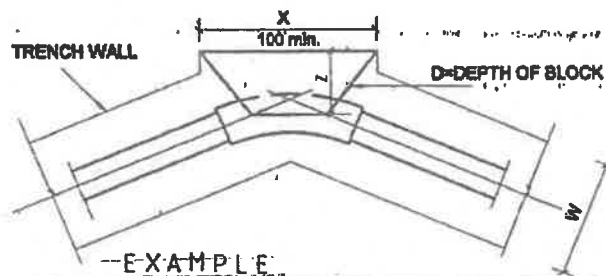
Application:

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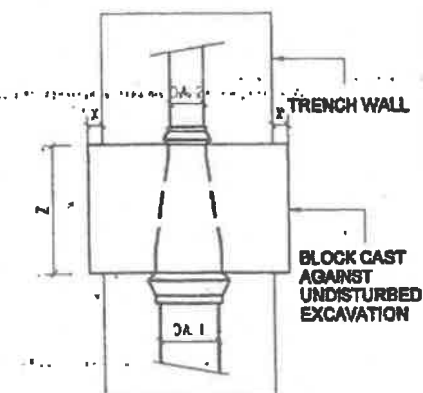
THRUST BLOCK



DAIMETER	11.25 DEGREE			22.5 DEGREE			45 DEGREE		
	D	X	A(m ²)	D	X	A(m ²)	D	X	A(m ²)
200	400	800	0.04	400	800	0.04	400	800	0.09

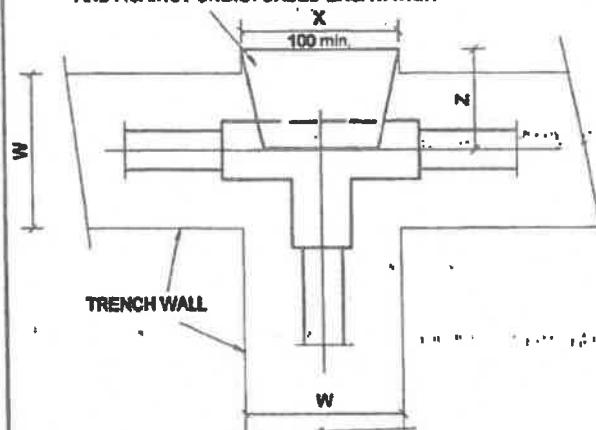
NOTE : Z SHALL BE THE MINIMUM OF X/2 OR W/2

THRUST BLOCK FOR 45, 22.5 AND 11.25 DEGREE BENDS



PIPE DIA.1	PIPE DIA.2	D	X	Z
200	100	400	150	200

BLOCK CAST SYMMETRICALLY ABOUT PLANE CONTAINING AXES OF FITTING AND AGAINST UNDISTURBED EXCAVATION



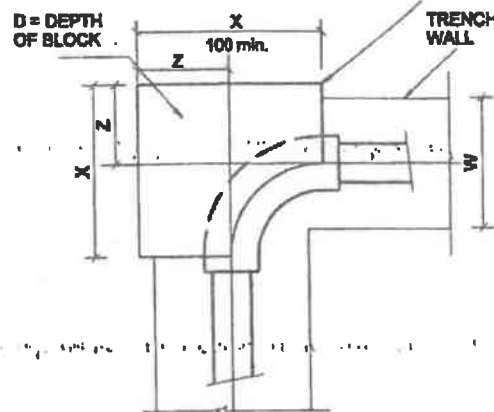
EXAMPLE

DIAMETER	D	X	A(m ²)
200	400	800	0.11

NOTE : Z SHALL BE THE MINIMUM OF X/2 OR W/2

THRUST BLOCK FOR TEE

BLOCK CAST AGAINST UNDISTURBED EXCAVATION



EXAMPLE

DIAMETER	D	X	A(m ²)
200	400	800	0.16

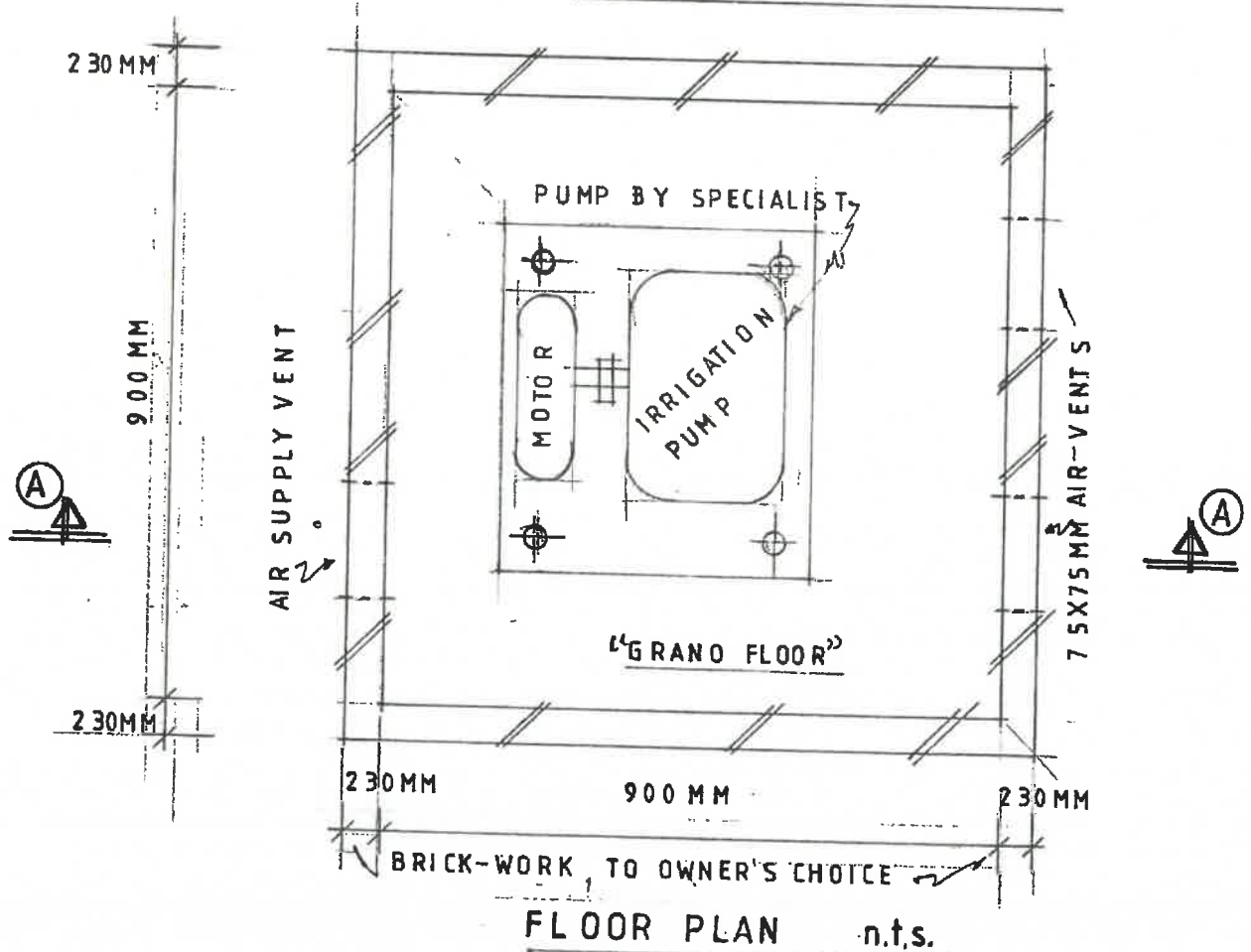
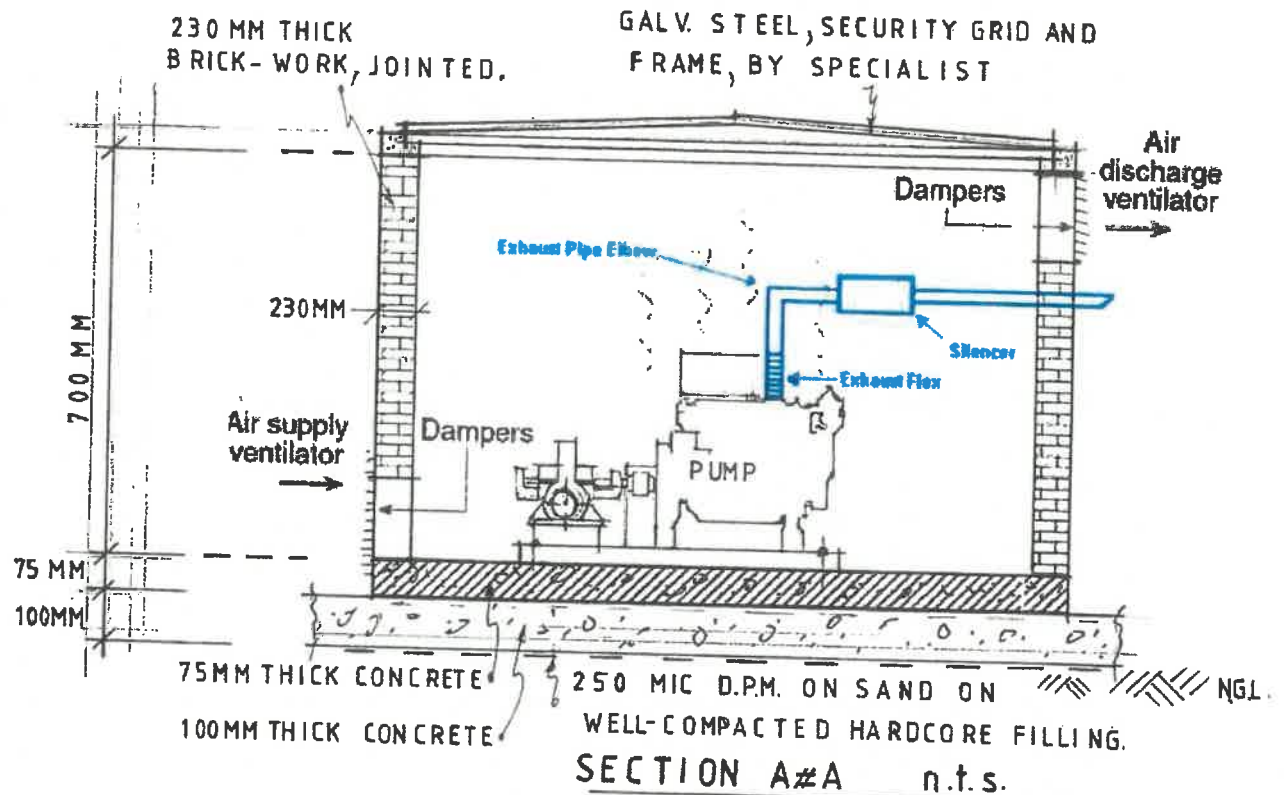
NOTE : Z SHALL BE THE MINIMUM OF X/2 OR W/2

THRUST BLOCK FOR 90 DEGREE BEND

DRAWN: K ACKERMANN

DATE :- SEPT. 2020

IRRIGATION CHAMBER FOR IRRIGATION PUMP AND MOTOR



DRAWING N °

WATER IRRIGATION TO BE CONFIRMED
ON-SITE.