

32/3413-3

P. No. 1150



UNITED REPUBLIC OF TANZANIA

BUGURUNI AREA DAR-ES-SALAAM

STAGE I EXTENSION

LOW COST SANITATION PILOT PROJECT

PERMANENT EMPTYABLE VENTILATED

IMPROVED PIT LATRINE

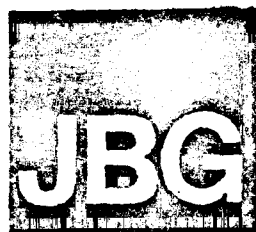
VOLUME III

DRAWINGS

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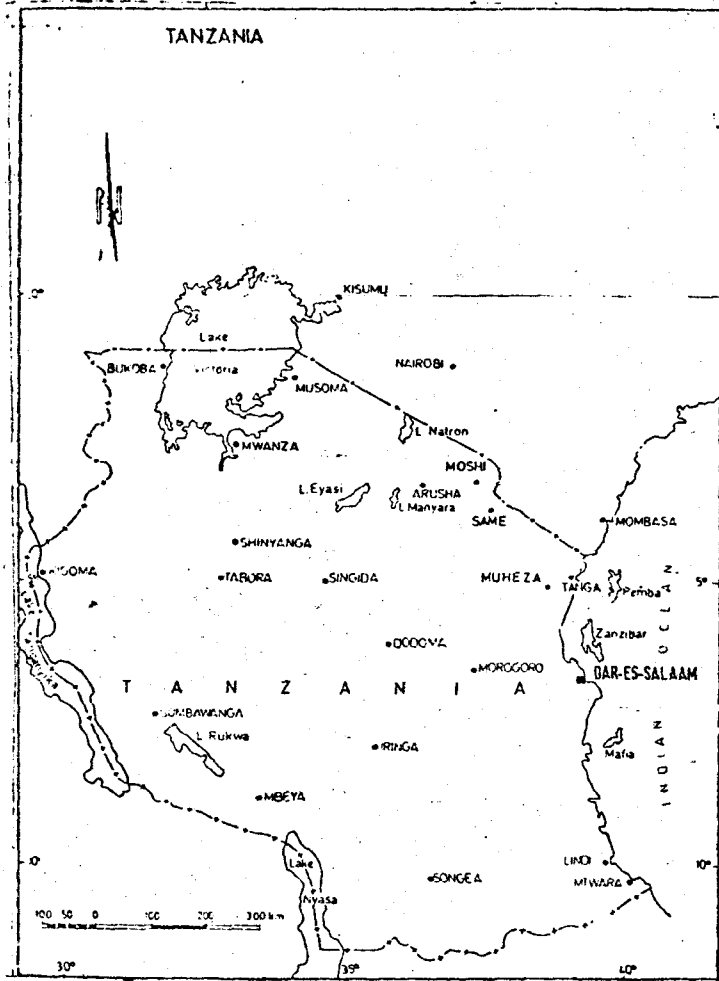
H. P. GAUFF GmbH
P. O. Box 4351
DAR ES SALAAM

AUGUST 1983

MINISTRY OF LANDS, HOUSING AND URBAN DEVELOPMENT
DAR ES SALAAM
TANZANIA

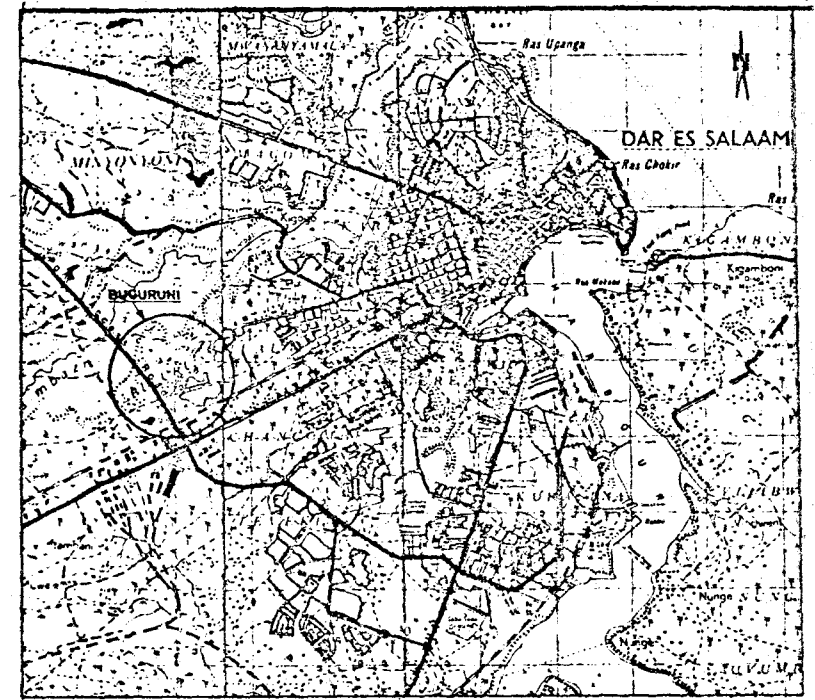
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LIST OF DRAWINGS



LOCATION MAP
SCALE 1:5,000,000

DRAWING Nr.	TITLE
4081/LCS/0	LOCATION MAP, LOCATION PLAN AND LIST OF DRAWINGS.
4081/LCS/1	COMPONENTS FOR CONSTRUCTION OF PERMANENT EMPTYABLE VENTILATED IMPROVED PIT LATRINE, CIRCULAR/SQUARE TYPE DRY OR WET PIT
4081/LCS/2	PERMANENT EMPTYABLE VENTILATED IMPROVED PIT LATRINE, SQUARE TYPE DRY PIT
4081/LCS/3	PERMANENT EMPTYABLE VENTILATED IMPROVED PIT LATRINE, CIRCULAR TYPE DRY PIT
4081/LCS/4	PERMANENT EMPTYABLE VENTILATED IMPROVED PIT MOUND LATRINE, SQUARE TYPE WET PIT
4081/LCS/5	PERMANENT EMPTYABLE VENTILATED IMPROVED PIT MOUND LATRINE, CIRCULAR TYPE WET PIT
4081/LCS/6	PERMANENT EMPTYABLE POUR FLUSH TYPE LATRINE, SQUARE OR CIRCULAR TYPE DRY OR WET PIT
4081/LCS/7	PERMANENT EMPTYABLE VENTILATED IMPROVED LATRINE-BATHING UNIT WITH CORBELLED SUBSTRUCTURE - PIT LINING TO SUPPORT FLOOR SLAB OF BATHING AREA Sheet I of II
4081/LCS/8	PERMANENT EMPTYABLE VENTILATED IMPROVED LATRINE-BATHING UNIT WITH CORBELLED SUBSTRUCTURE - PIT LINING TO SUPPORT FLOOR SLAB OF BATHING AREA Sheet II of II
4081/LCS/9	PERMANENT EMPTYABLE VENTILATED IMPROVED LATRINE-BATHING UNIT WITH SEPARATE RAFT FOUNDATION & SUBSTRUCTURE TO SUPPORT FLOOR SLAB OF BATHING AREA
4081/LCS/10	MOULDS FOR CASTING OF COMPONENTS FOR PERMANENT EMPTYABLE VENTILATED IMPROVED LATRINE
4081/LCS/11	SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS, REFERENCE PLAN
4081/LCS/12	SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS Sheet I of III
4081/LCS/13	SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS Sheet II of III
4081/LCS/14	SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS Sheet III of III



LOCATION PLAN
SCALE 1:50,000

NOTE
TERMINOLOGY:
1. DRY PIT MEANS CONVENTIONAL PIT LATRINE
2. WET PIT IS COMMONLY CALLED A MOUND LATRINE FOR USE IN AREAS OF HIGH GROUND WATER TABLE.

LIBRARY ~~KD 4577~~
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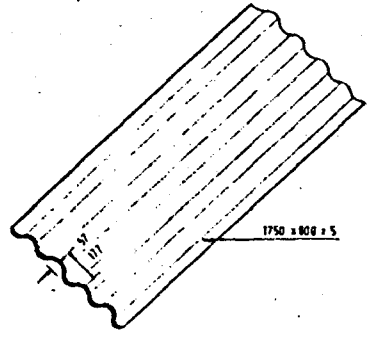
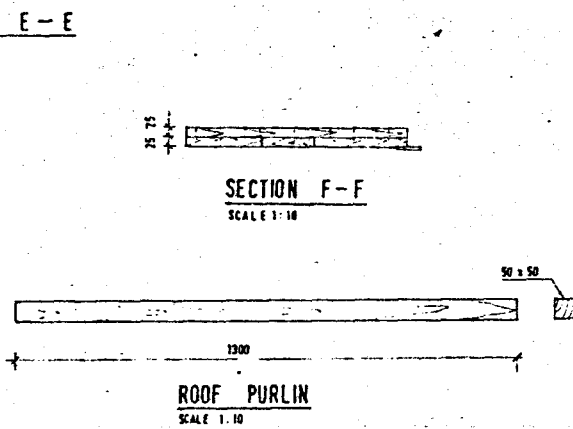
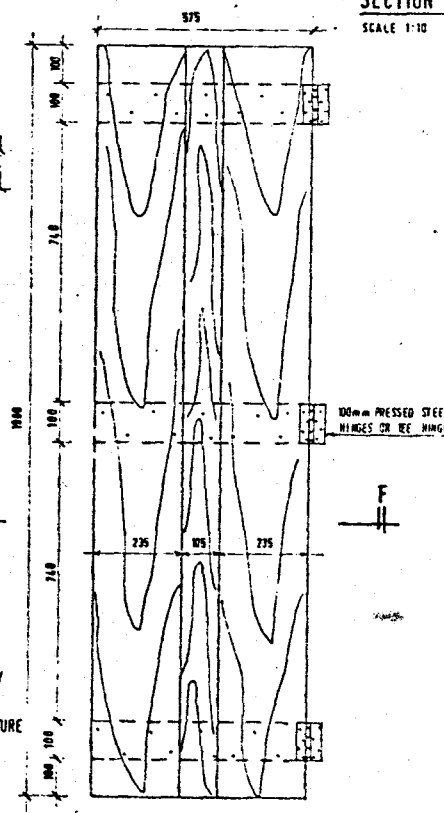
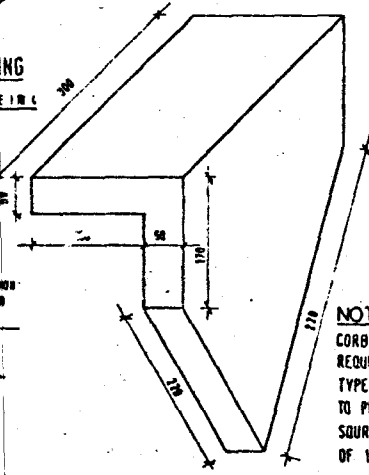
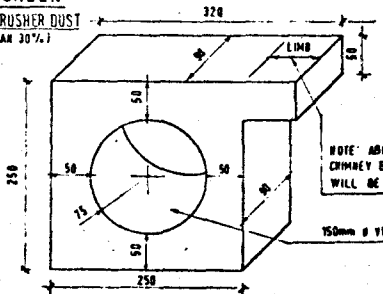
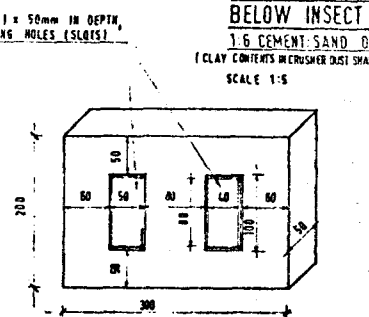
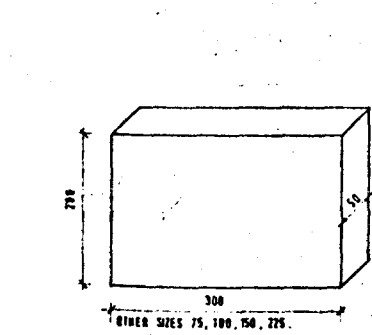
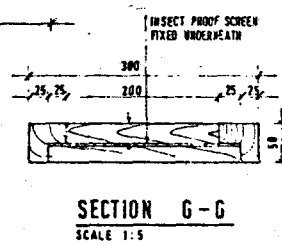
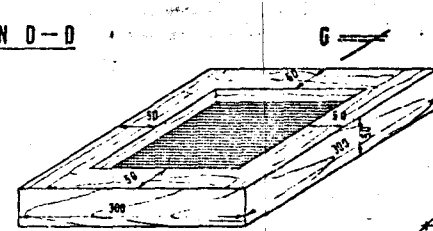
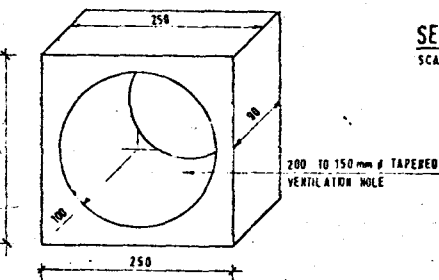
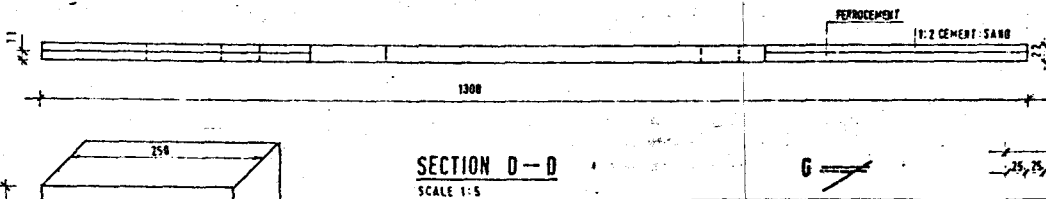
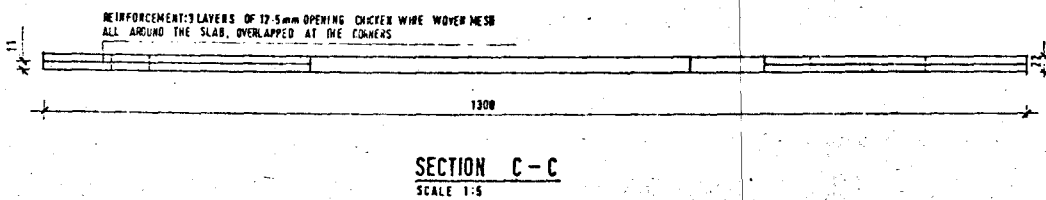
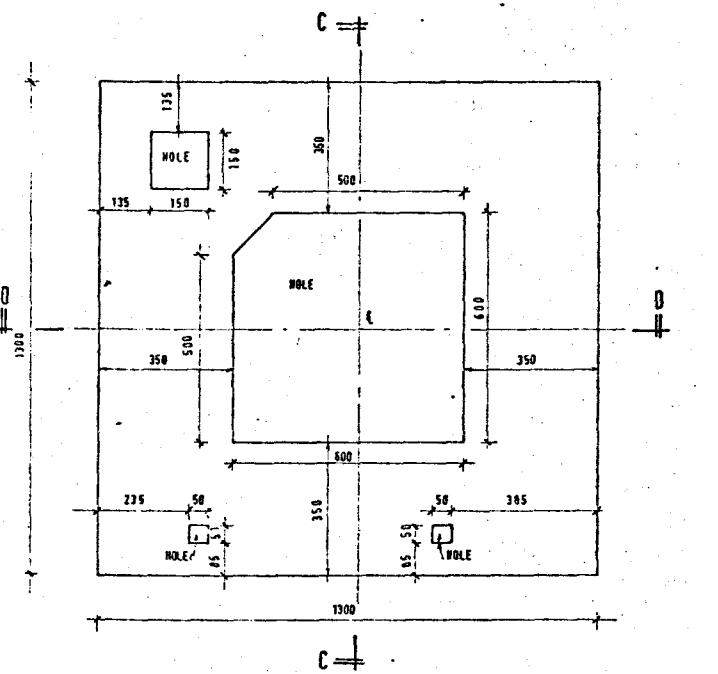
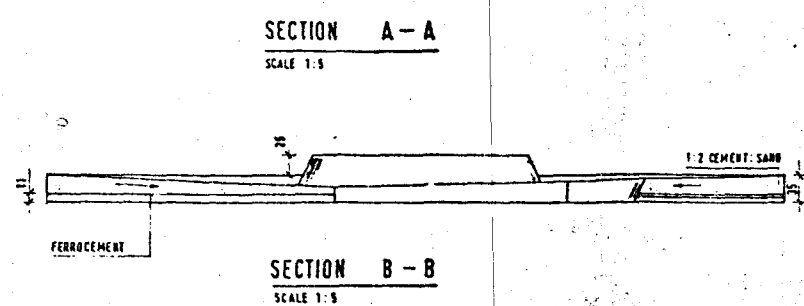
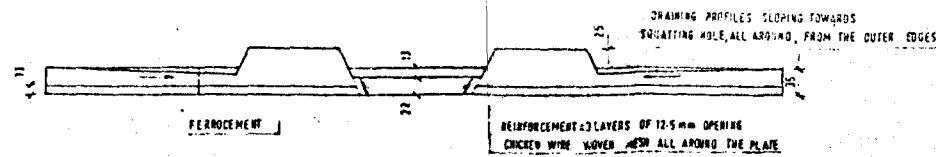
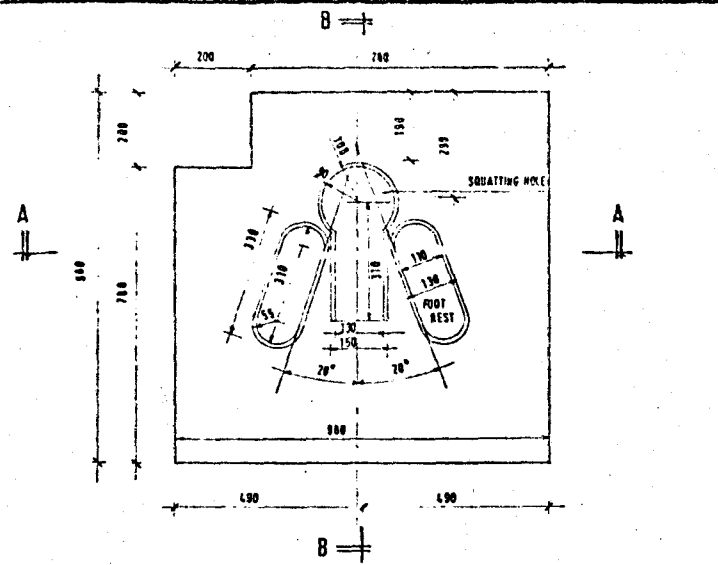
THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF LANDS HOUSING
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DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		AUGUST 1983	FINAL		

H.P. GAUFF GmbH
CONSULTING ENGINEERS
P. O. Box 4351
DAR-ES-SALAAM

LOCATION BY	
DESIGNED BY	E. E. AGGARWAL
DRAWN BY	M. W. M. M. M.
CHECKED BY	M. W. M. M. M.
SCALE	

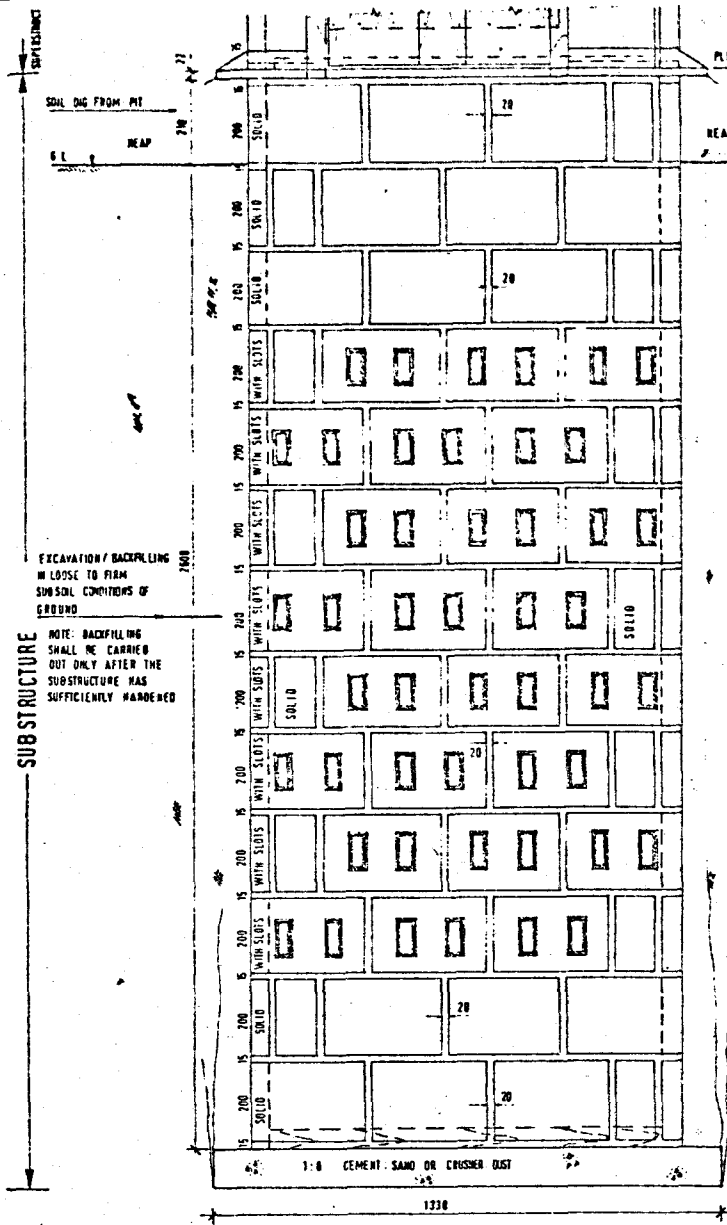
LOW COST SANITATION PILOT PROJECT
LOCATION MAP, LOCATION PLAN AND LIST OF DRAWINGS



- NOTE**
1. STAINLESS STEEL (20 S SWG, 1.23mm² HOLES) PREFERRED MATERIAL
 2. FIBREGLASS WITH PLASTIC COATING WHICH HAS AN ANTI-ULTRA-VIOLET (UV) DAMAGE ADDITIVE-ACCEPTABLE MATERIAL
 3. NYLON OR PLASTIC-ACCEPTABLE MATERIAL
 4. IF NYLON OR PLASTIC IS USED, IT SHOULD BE REPLACED ANNUALLY.

WOODEN DOOR FRAME
TO BE ASSEMBLED AT THE CONSTRUCTION SITE OF THE LATRINE BY THE CONSTRUCTION LABOUR OF THE LATRINE
SCALE 1:10

WOOD TREATMENT - PAINTING SCHEDULE OF COMPONENTS	
WOODEN COMPONENT	SCHEDULE FOR ALL WOODEN SURFACES
DOOR FRAME	TO BE APPLIED WITH 2 COATS OF WOOD PRESERVATIVE CREOSOTE OIL.
DOOR	TO BE APPLIED WITH 2 COATS OF WOOD PRESERVATIVE CREOSOTE OIL, INITIALLY - 3 COATS OF BLACK BITUMEN PAINT, FINALLY
ROOF PURLINS	TO BE APPLIED WITH 2 COATS OF WOOD PRESERVATIVE CREOSOTE OIL.
TIMBER FOR THE INCORPORATING INSECT PROOF SCREEN	TO BE APPLIED WITH 2 COATS OF WOOD PRESERVATIVE CREOSOTE OIL, INITIALLY - 3 COATS OF BLACK BITUMEN PAINT, FINALLY



P.E. V.I.P. LATRINE
SQUARE TYPE DRY PIT - SUBSTRUCTURE FRONT ELEVATION

NOTE: BACKFILLING SHALL BE CARRIED OUT ONLY AFTER THE SUBSTRUCTURE HAS SUFFICIENTLY HARDENED

1st TO 4th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

5th TO 10th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

11th TO 15th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

16th TO 20th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

21st TO 25th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

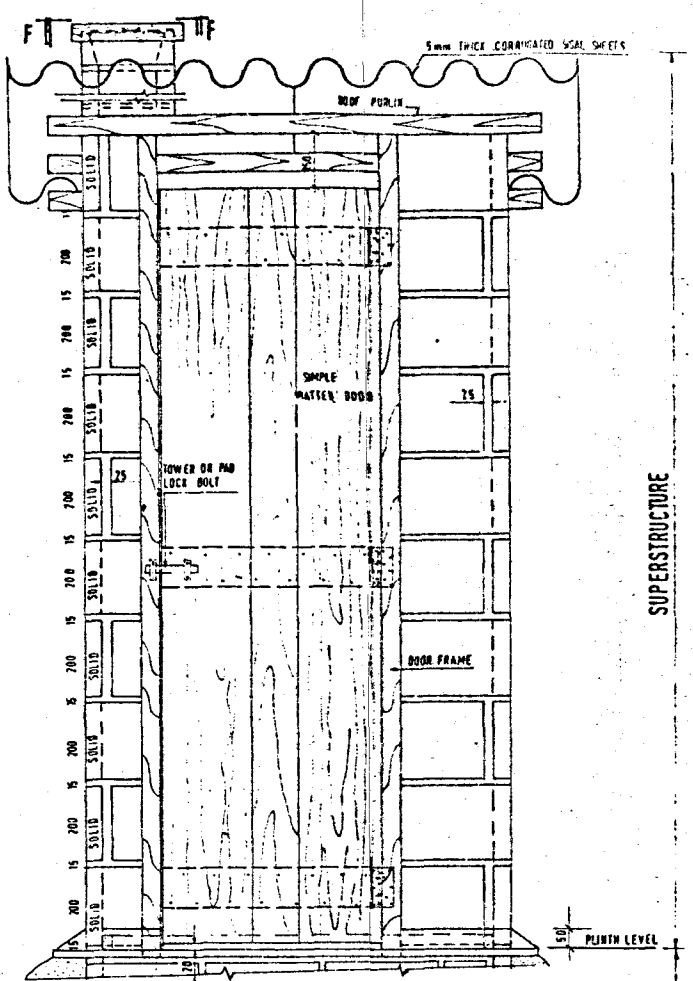
26th TO 30th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

31st TO 35th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

36th TO 40th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

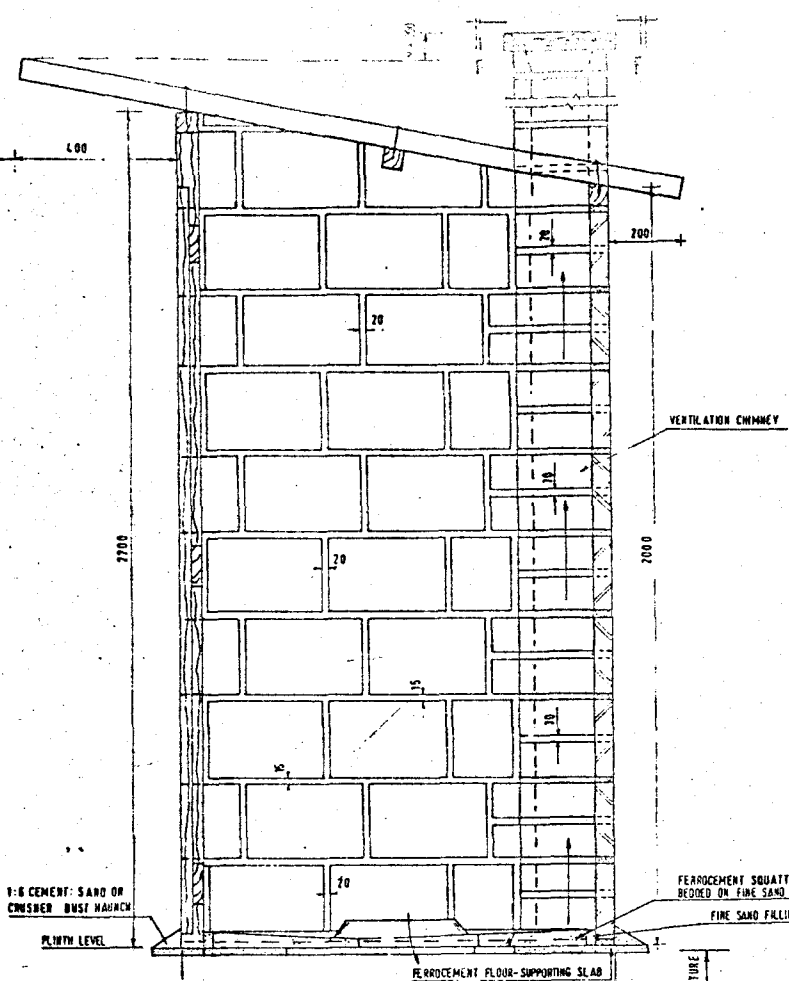
41st TO 45th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

46th TO 50th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES

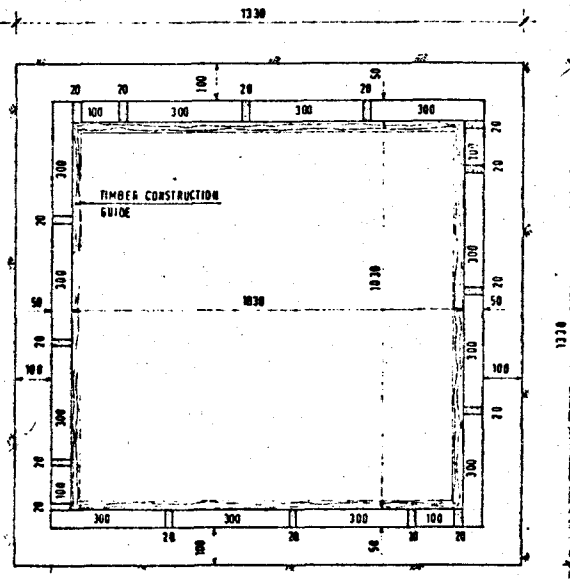
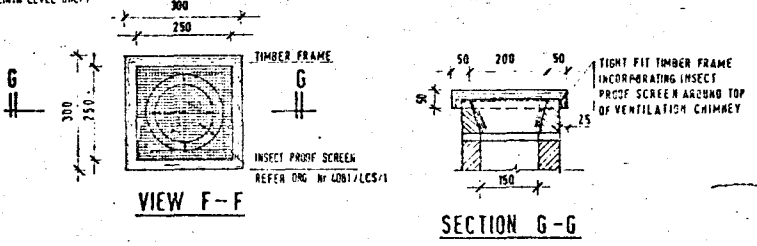


P.E. V.I.P. LATRINE
SQUARE TYPE DRY PIT - SUPERSTRUCTURE FRONT ELEVATION

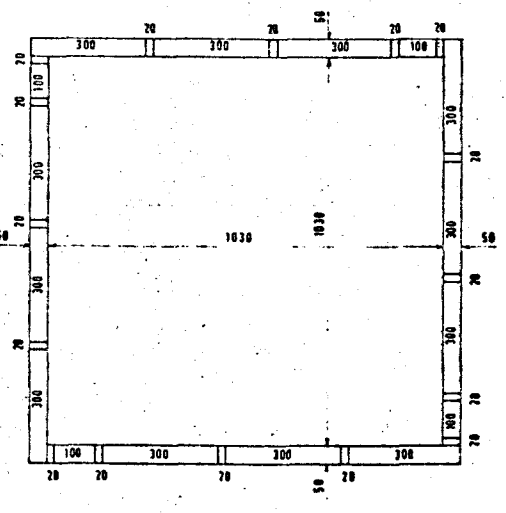
NOTE: 1. DOOR FRAME TO BE FIXED SIMULTANEOUSLY WITH THE CONSTRUCTION OF SUPERSTRUCTURE WALLS.
2. ROOF PURLINS TO BE FIXED TIGHTLY SECURED TO THE SUPERSTRUCTURE WALLS BY USING BITUMEN PAINTED STRAP IRON OR GALVANISED WIRE.
3. FOR RELEVANT COMPONENTS FOR CONSTRUCTION REF. DNG. NO. 6001/LCS/1
4. THIS LATRINE SHALL BE USED IN AREAS WITH GROUND STABILITY SATISFACTORY TO GOOD



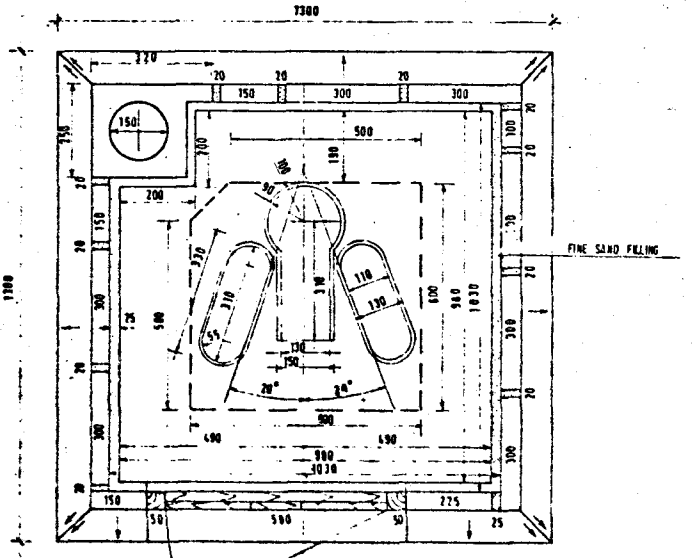
SECTION E-E
(SHOWS UP TO PLINTH LEVEL ONLY)



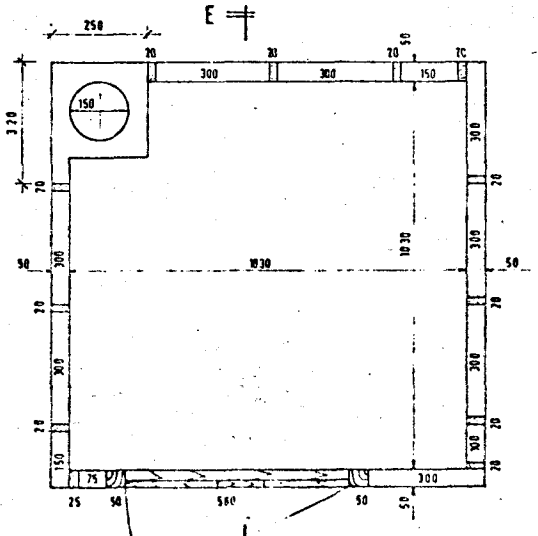
P.E. V.I.P. LATRINE
SQUARE TYPE DRY PIT - SUBSTRUCTURE FOUNDATION PLAN



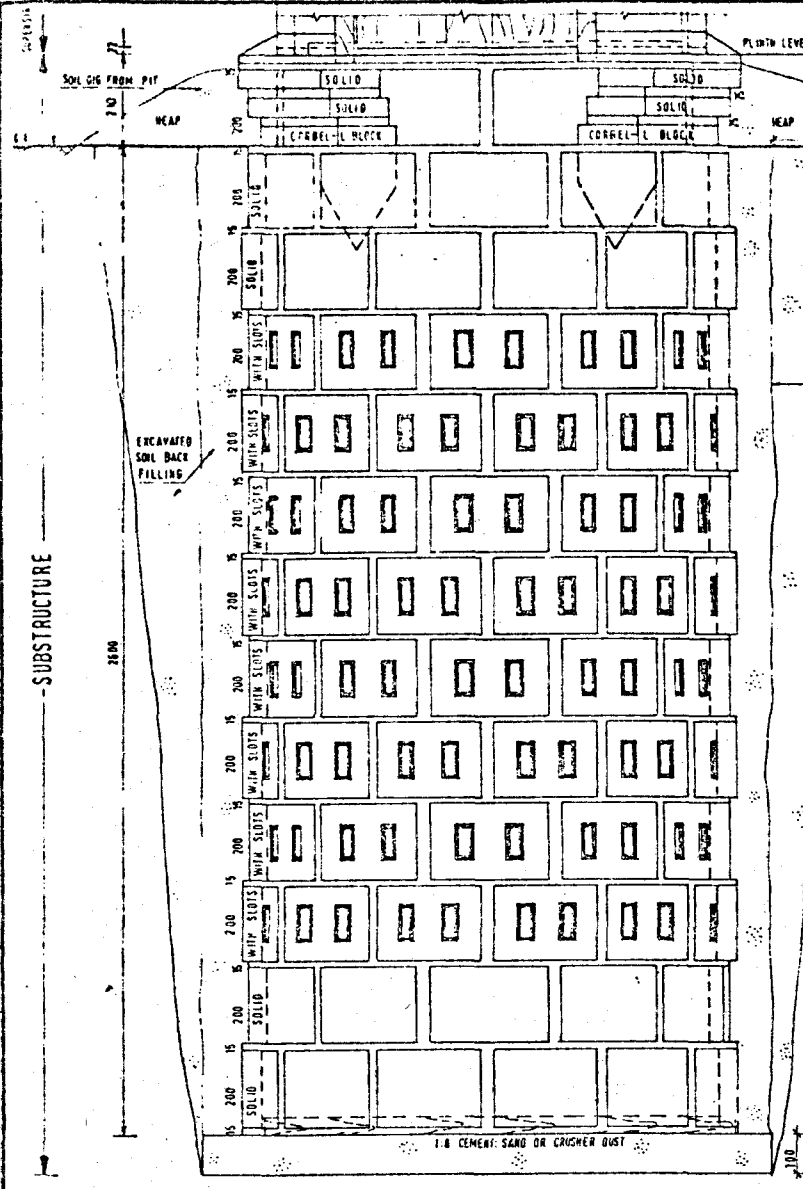
P.E. V.I.P. LATRINE
SQUARE TYPE DRY PIT - SUBSTRUCTURE PLAN



P.E. V.I.P. LATRINE
SQUARE TYPE DRY PIT - SUPERSTRUCTURE PLAN AT PLINTH



P.E. V.I.P. LATRINE
SQUARE TYPE DRY PIT - SUPERSTRUCTURE PLAN



P.E., V.I.P. LATRINE
CIRCULAR TYPE DRY PIT—SUBSTRUCTURE FRONT ELEVATION

1st TO 13th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES.

NOTE: BACK FILLING SHALL BE CARRIED OUT ONLY AFTER THE SUBSTRUCTURE WAS SUFFICIENTLY BARBERED.

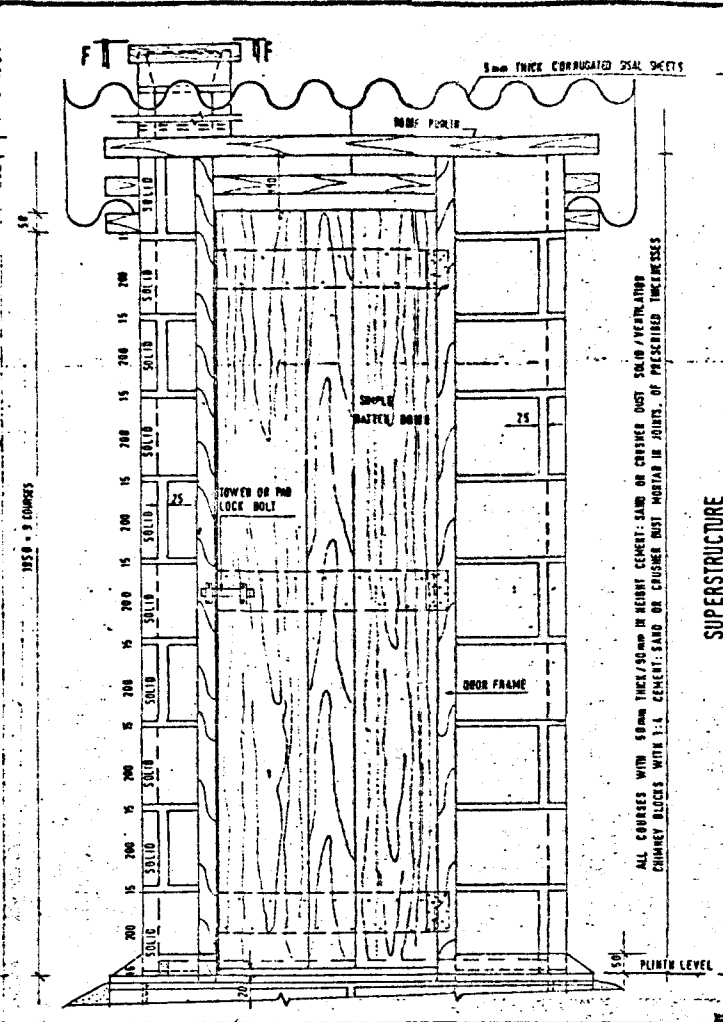
EXCAVATION/BACKFILLING IN ORDER TO FIRM UNSOIL CONDITIONS OF GROUND.

NOTE: BACK FILLING SHALL BE CARRIED OUT ONLY AFTER THE SUBSTRUCTURE WAS SUFFICIENTLY BARBERED.

1st TO 10th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES.

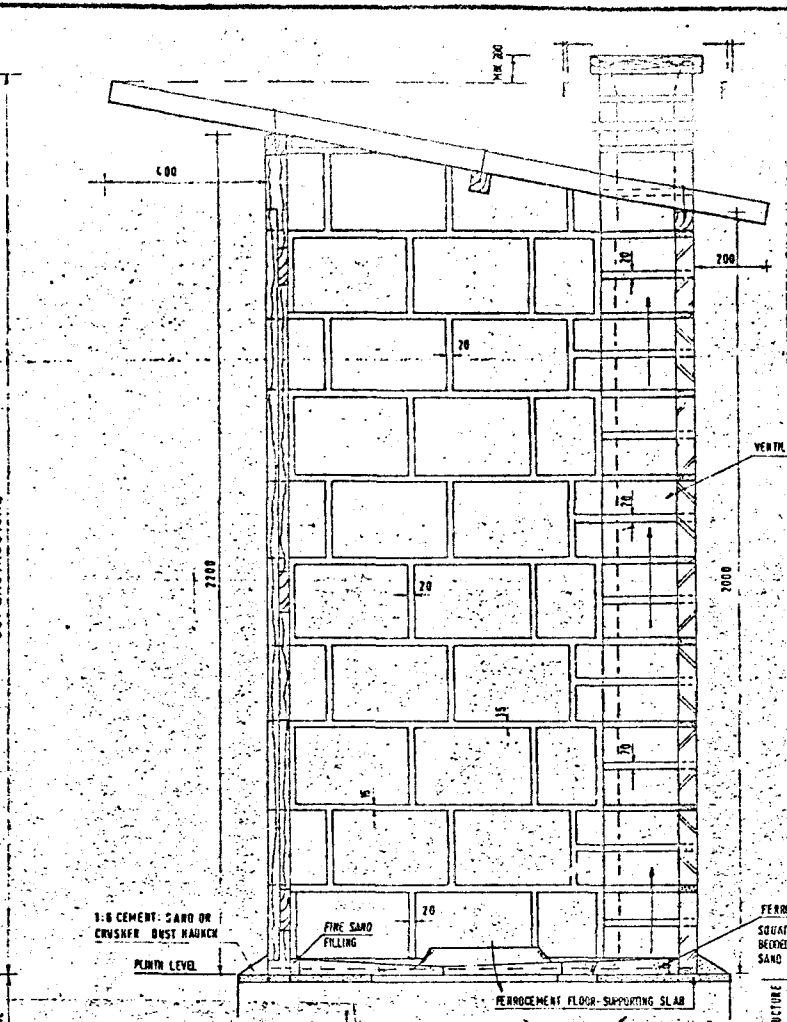
1st TO 10th COURSES WITH LEACHING HOLES WITH 3 CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES.

1st TO 10th COURSES WITH 50mm THICK CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESCRIBED THICKNESSES.

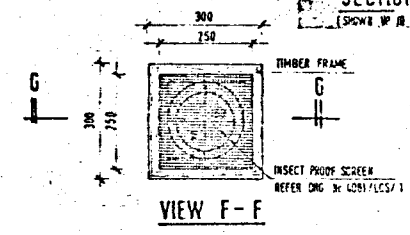


P.E., V.I.P. LATRINE
CIRCULAR TYPE DRY PIT—SUPERSTRUCTURE FRONT ELEVATION

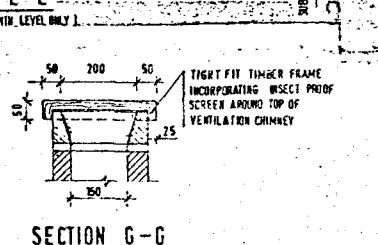
- NOTE:
- DOOR FRAME TO BE FIXED SIMULTANEOUSLY WITH THE CONSTRUCTION OF SUPERSTRUCTURE WALLS.
 - ROOF PURLINS TO BE FIRMLY SECURED TO THE SUPERSTRUCTURE WALLS BY USING BITUMEN PAINTED STRAP IRON OR GALVANISED WIRE.
 - FOR RELEVANT COMPONENTS FOR CONSTRUCTION REF. DIAG. NO. 4081/LCS/1
 - THIS LATRINE SHALL BE USED IN AREAS WITH GROUND STABILITY POOR OR VERY POOR.



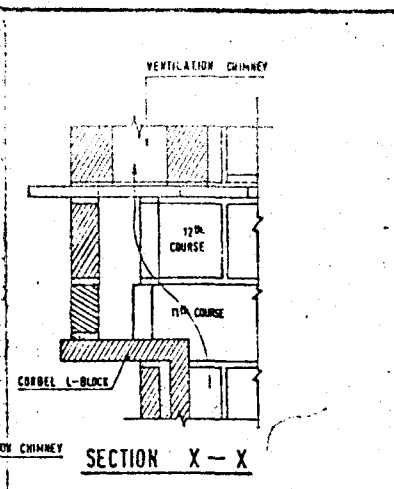
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(SHOWS UP TO PLINTH LEVEL ONLY)



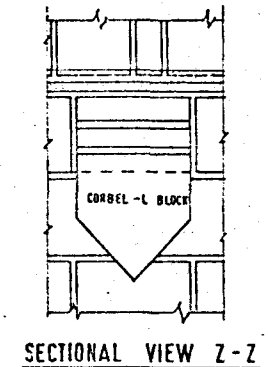
VIEW F-F



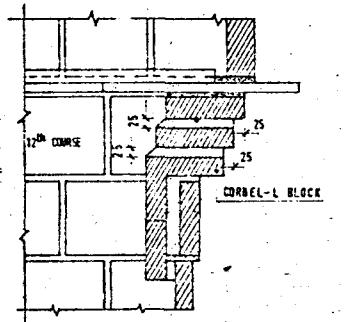
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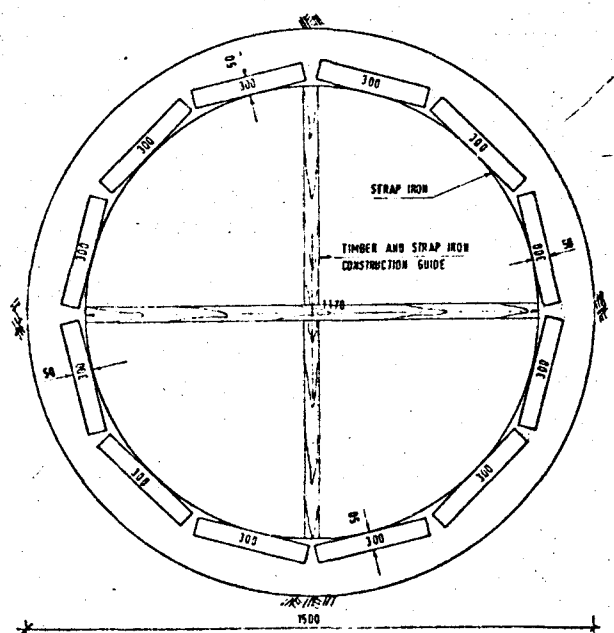
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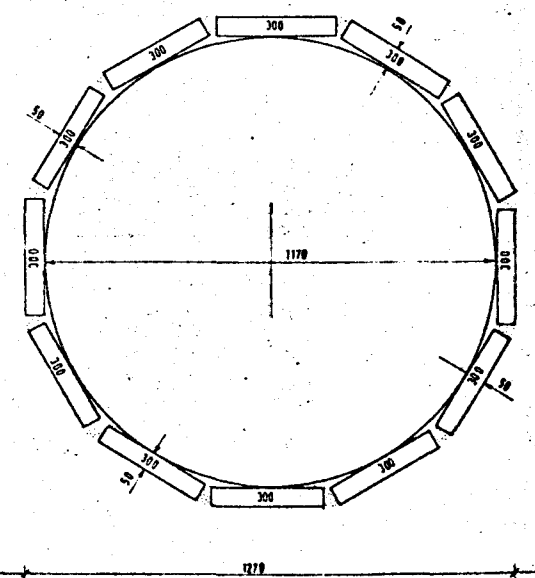
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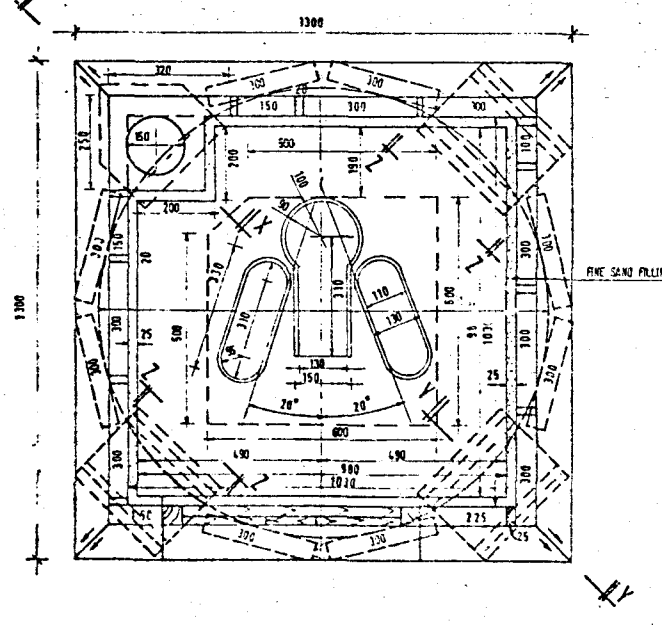
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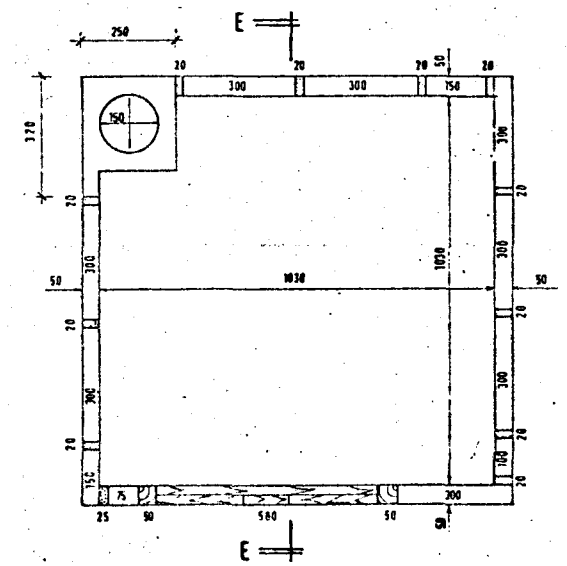
P.E., V.I.P. LATRINE
CIRCULAR TYPE DRY PIT—SUBSTRUCTURE FOUNDATION PLAN



P.E., V.I.P. LATRINE
CIRCULAR TYPE DRY PIT—SUBSTRUCTURE PLAN

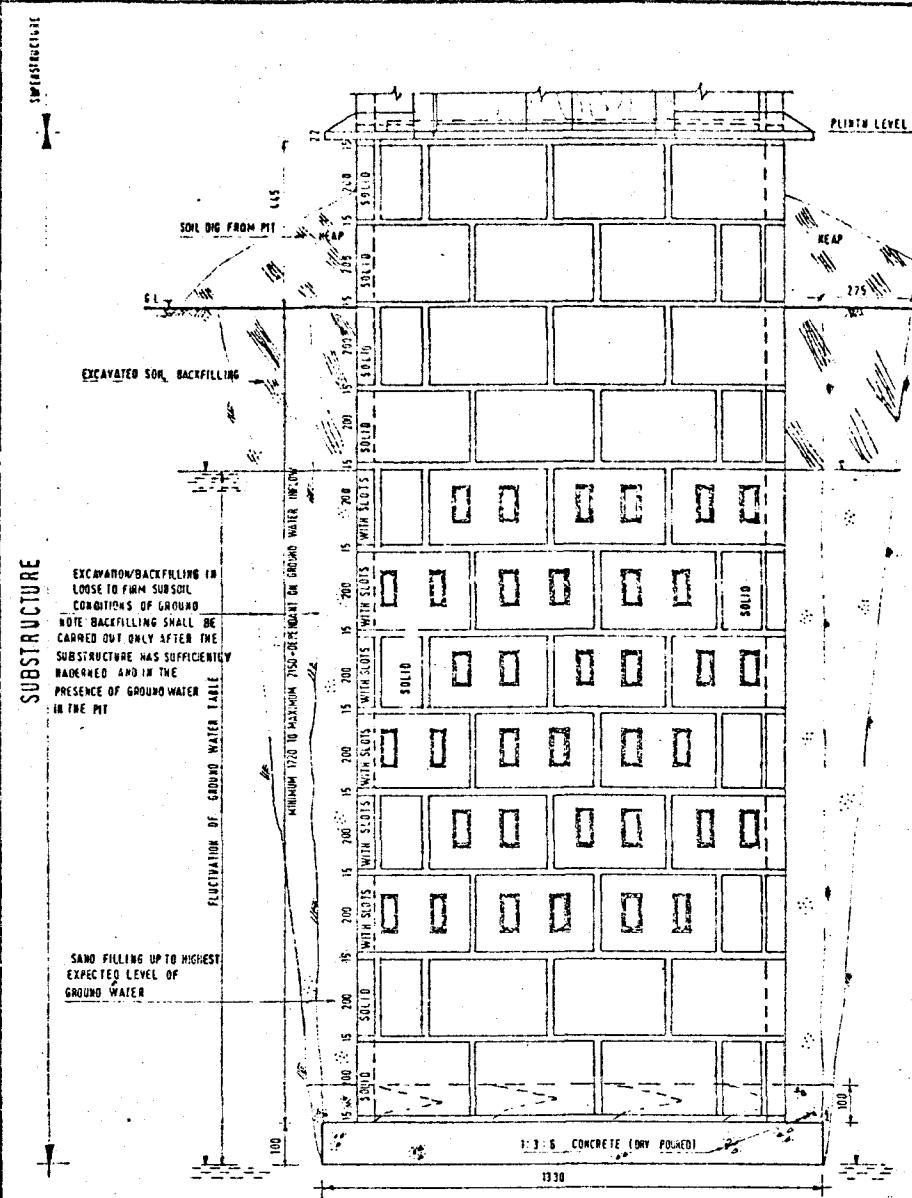


P.E., V.I.P. LATRINE
CIRCULAR TYPE DRY PIT—SUPERSTRUCTURE PLAN AT PLINTH LEVEL

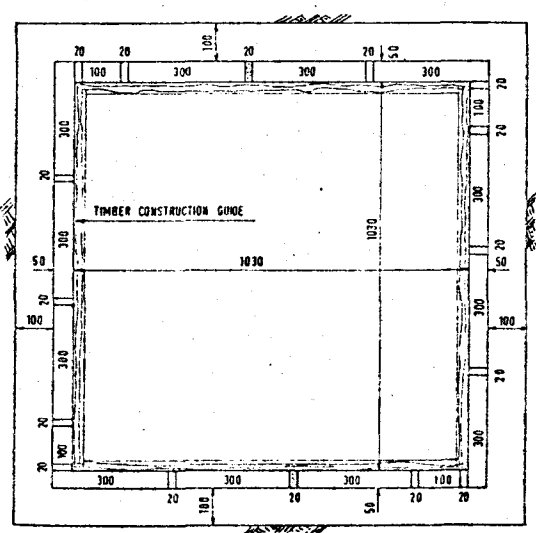


P.E., V.I.P. LATRINE
CIRCULAR TYPE DRY PIT—SUPERSTRUCTURE PLAN

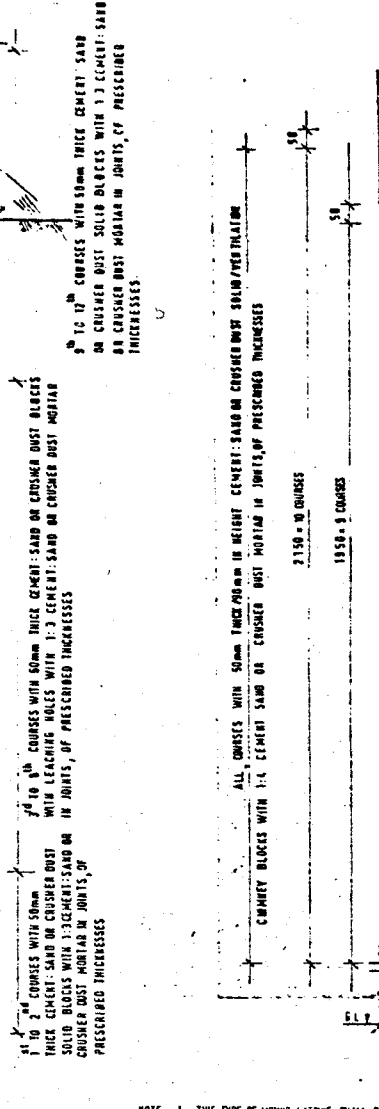
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DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		Aug. 1993	FINAL		



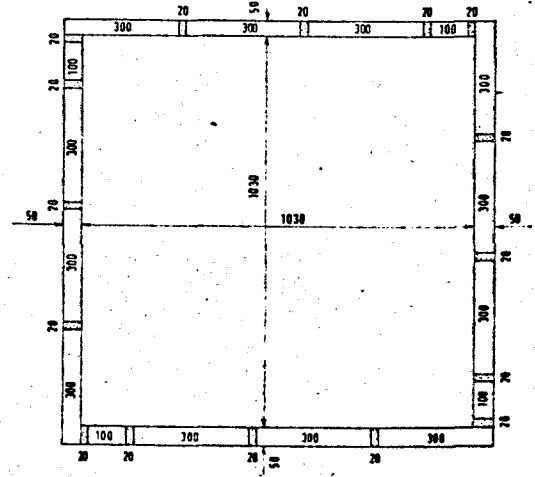
P.E. V.I.P. LATRINE
SQUARE TYPE WET PIT - SUBSTRUCTURE FRONT ELEVATION



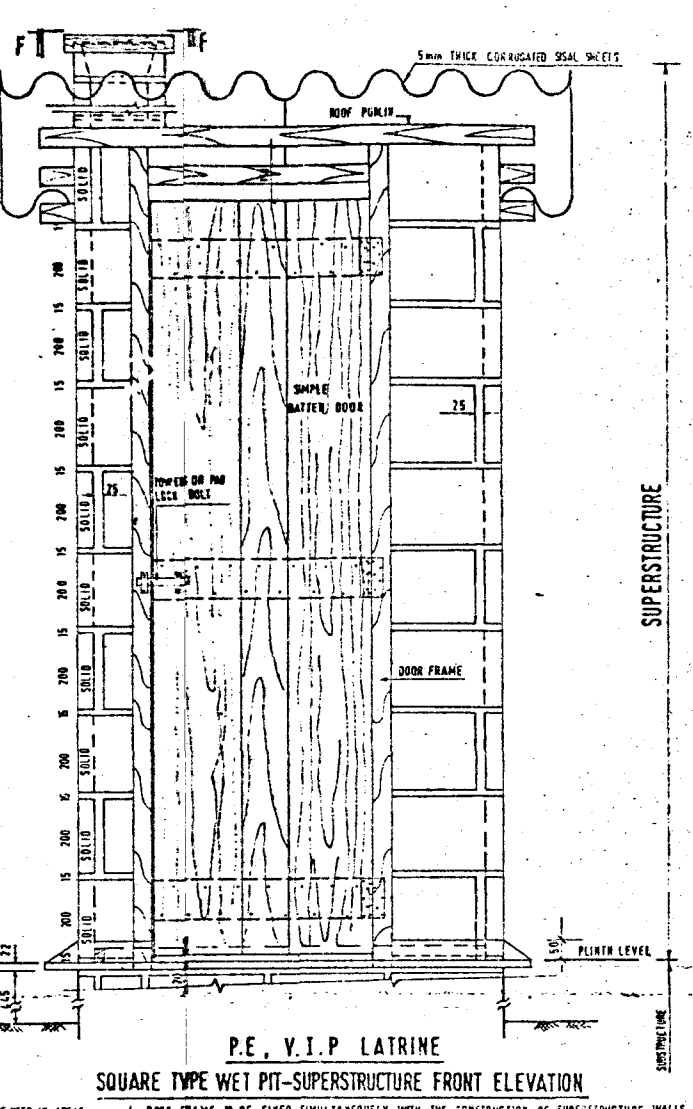
PE V.I.P. LATRINE
SQUARE TYPE WET PIT - SUBSTRUCTURE FOUNDATION PLAN



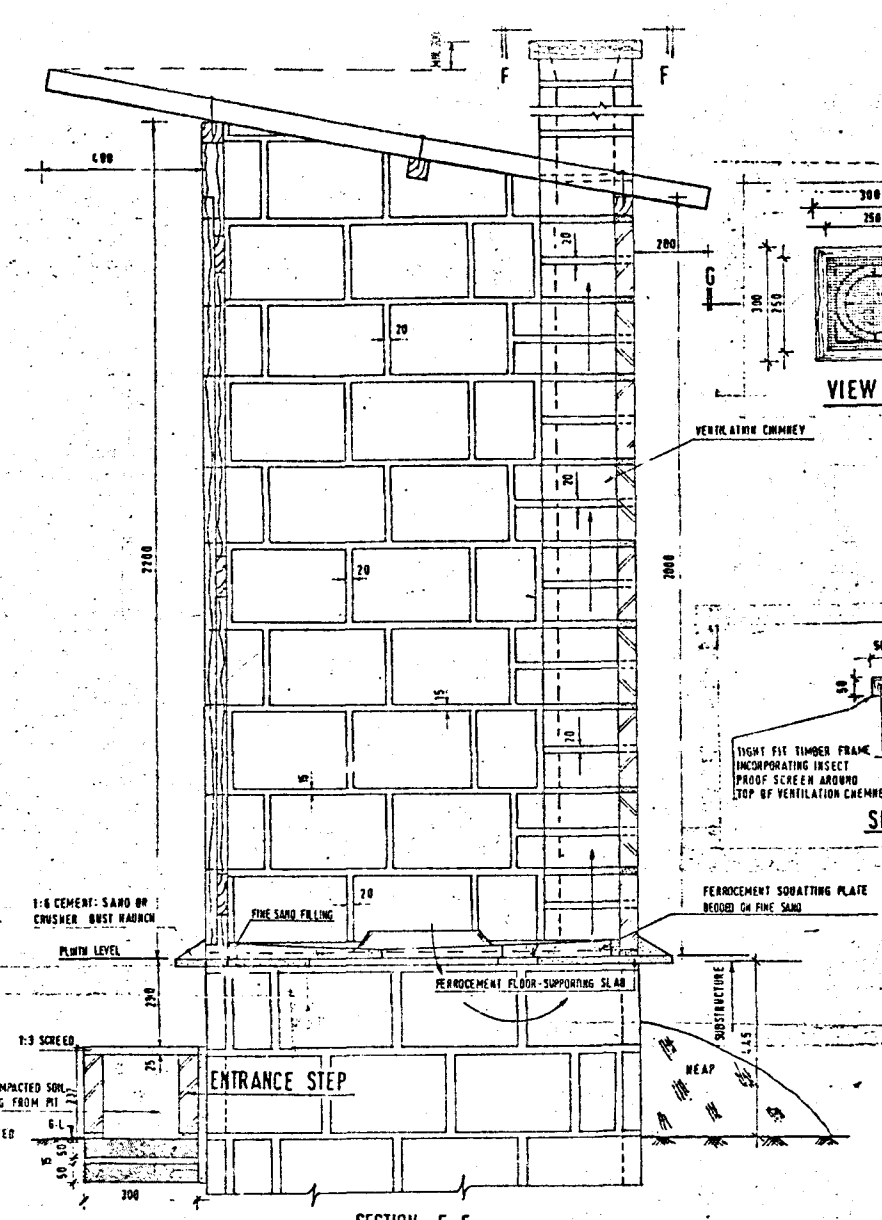
P.E. V.I.P. LATRINE
SQUARE TYPE WET PIT - SUPERSTRUCTURE FRONT ELEVATION



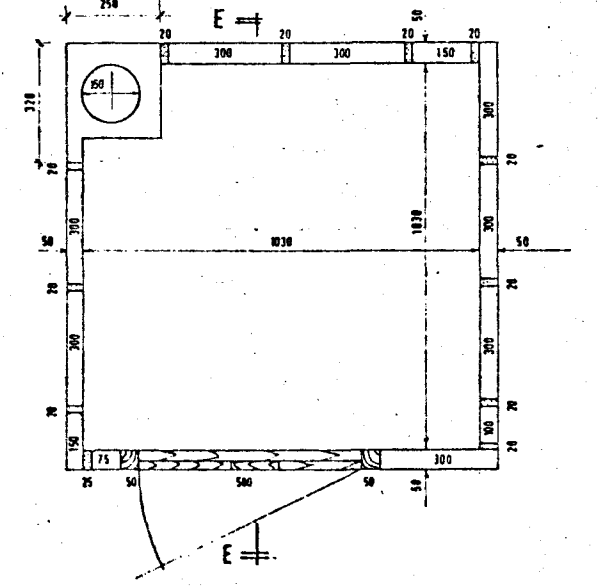
P.E. V.I.P. LATRINE
SQUARE TYPE WET PIT - SUBSTRUCTURE PLAN



P.E. V.I.P. LATRINE
SQUARE TYPE WET PIT - SUPERSTRUCTURE PLAN AT PLINTH

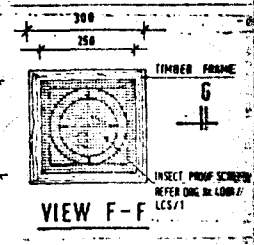


SECTION E-E

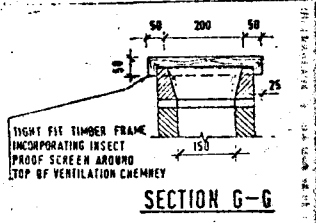


P.E. V.I.P. LATRINE
SQUARE TYPE WET PIT - SUPERSTRUCTURE PLAN

- NOTE:
1. THIS TYPE OF MOUND LATRINE SHALL BE USED IN AREAS OF HIGH GROUND WATER TABLE AND WITH GROUND STABILITY SATISFACTORY TO GOOD.
 2. CONSTRUCTION OF THE LATRINE SHALL BE CARRIED OUT, PREFERABLY IN THE DRY SEASON TO ATTAIN THE MAXIMUM DEPTH OF 2150.
 3. DEPTH OF THE SUBSTRUCTURE SHOWN HERE CORRESPOND TO MAX. 2150 BELOW GROUND LEVEL. IN ORDER TO ATTAIN MIN. DEPTH OF 1720 COURSES WITH BLOCKS WITH SLOTS SHALL BE REDUCED TO 4 (IN TOTAL) AND COURSES WITH SOLID BLOCKS SHALL REMAIN THE SAME.
 4. DOOR FRAME TO BE FIXED SIMULTANEOUSLY WITH THE CONSTRUCTION OF SUPERSTRUCTURE WALLS.
 5. ROOF PURLINS TO BE FIXED (TIGHTLY SECURED) TO THE SUPERSTRUCTURE WALLS BY USING BRUEN PAINTED STRAP 30MM OR GALVANISED WIRE.
 6. ENTRANCE STEP NOT SHOWN IN FRONT ELEVATION
 7. FOR RELEVANT COMPONENTS FOR CONSTRUCTION REF. DRG. NO. 6041/LCS/1



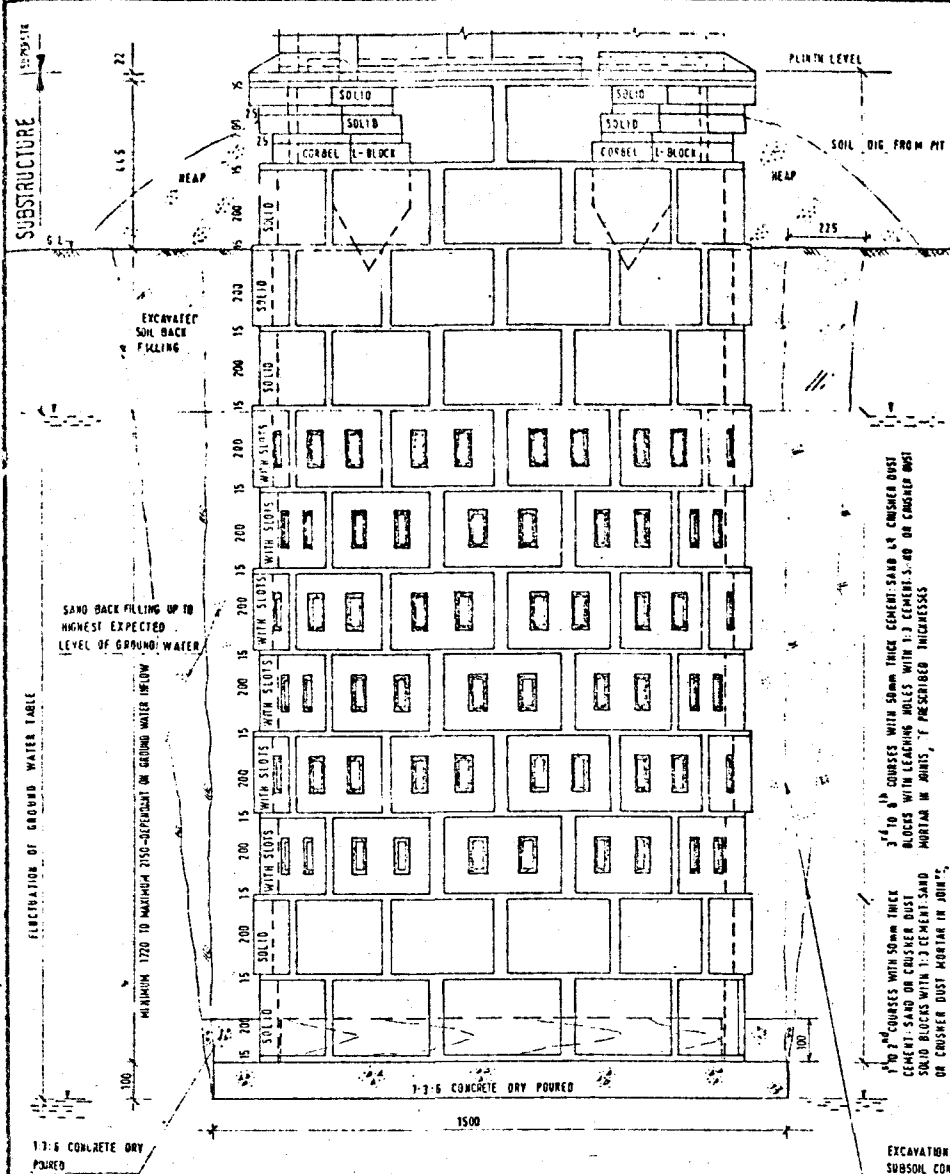
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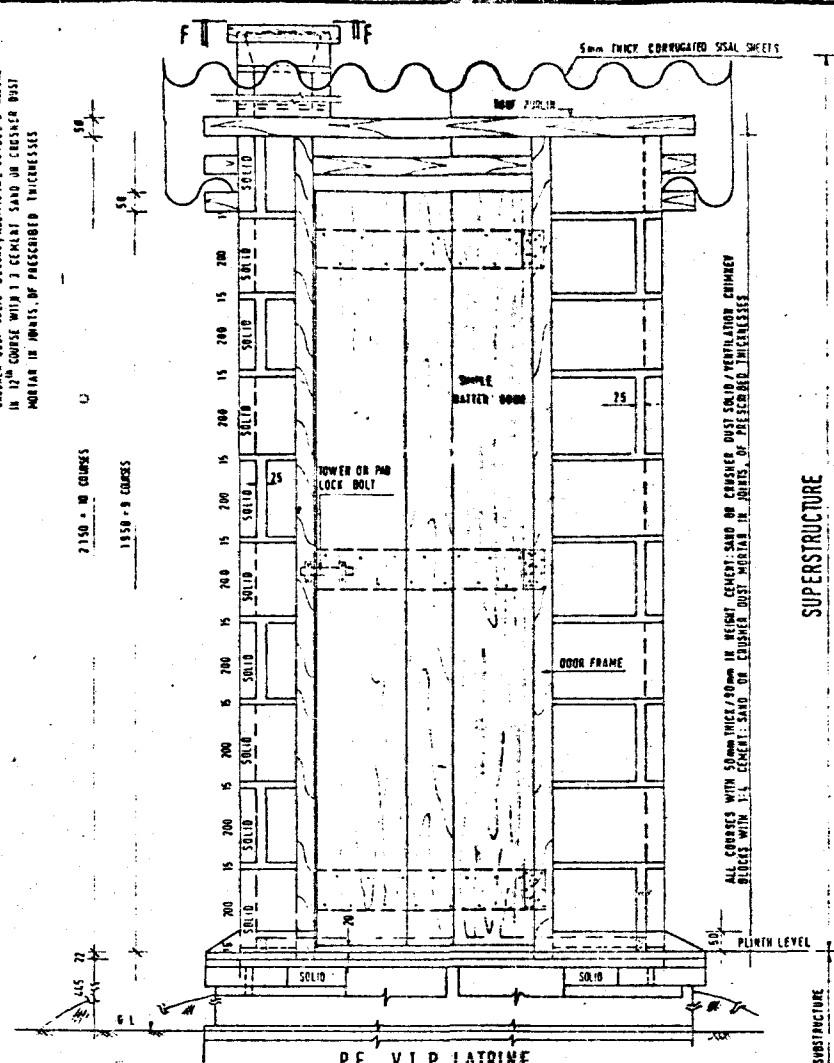
SECTION G-G

REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		DEC. 1993	FINAL		

LOCATION BY	DESIGNED BY	CHECKED BY
APPROVED BY	E. K. AGGARWAL	M. K. AGGARWAL
	DRAWN BY	
	N. L. WAFERRE	

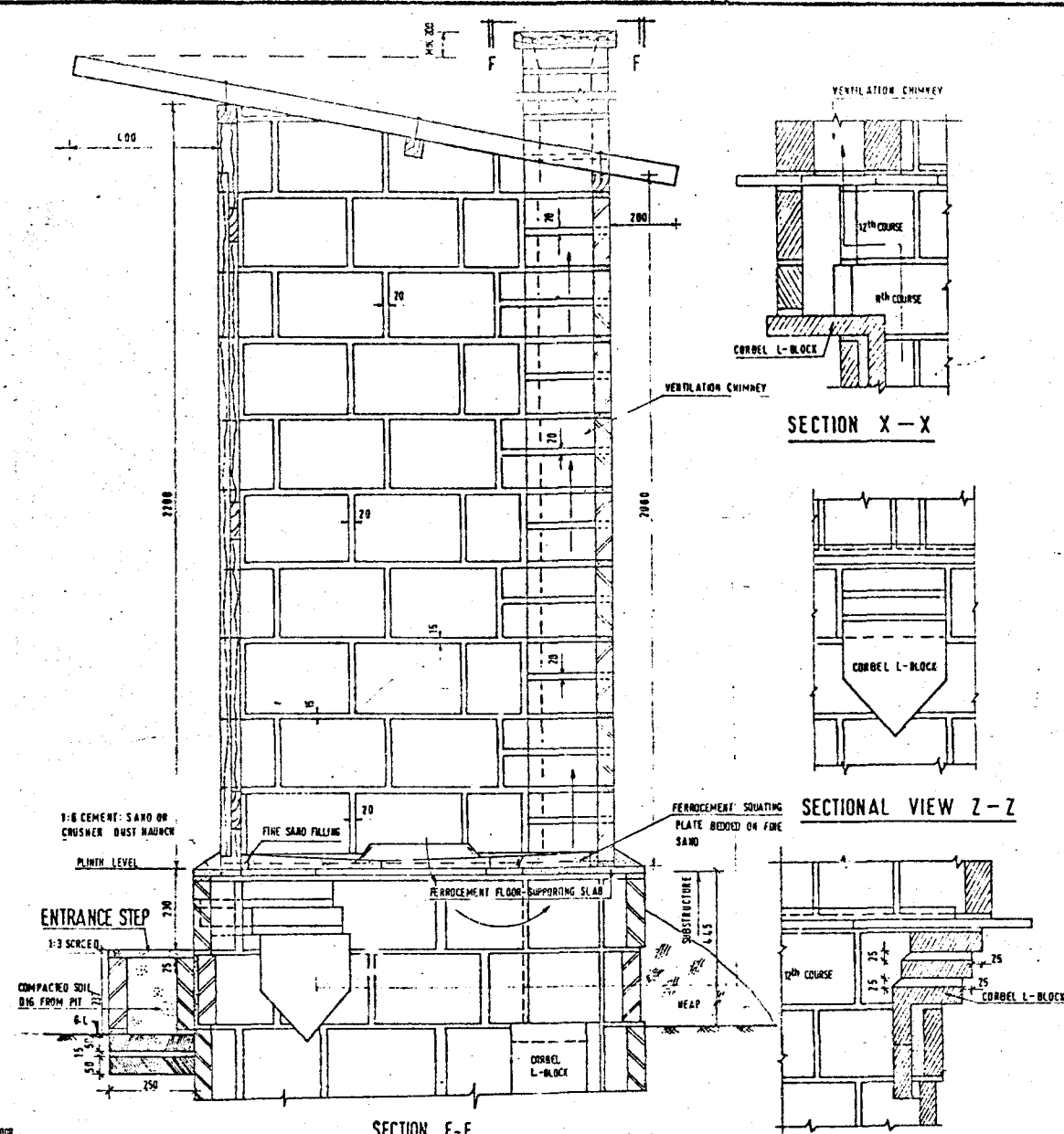


P.E. V.I.P. LATRINE
CIRCULAR TYPE WET PIT - SUBSTRUCTURE FRONT ELEVATION
 (ENTRANCE STEP NOT SHOWN IN FRONT ELEVATION)



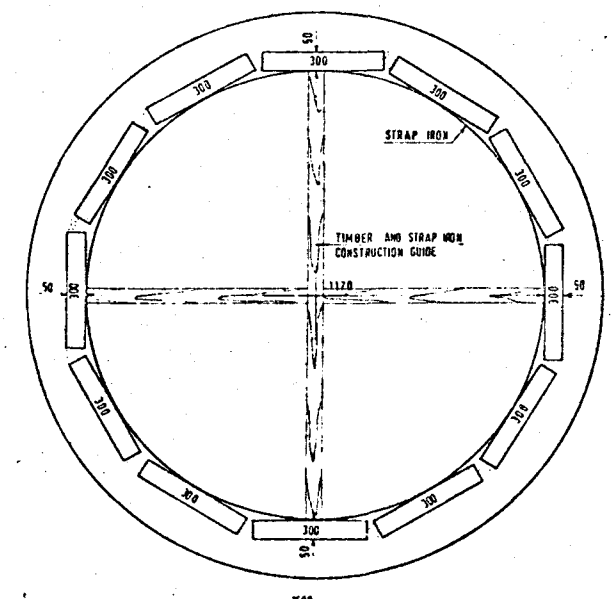
P.E. V.I.P. LATRINE
CIRCULAR TYPE WET PIT - SUPERSTRUCTURE FRONT ELEVATION

- NOTE: 1. DOOR FRAME TO BE FIXED SIMULTANEOUSLY WITH THE CONSTRUCTION OF SUPERSTRUCTURE WALLS.
 2. ROOF PURLINS TO BE FIXED TIGHTLY SECURED TO THE WALLS BY USING BUTTERED PAINTED STRAP IRON OR GALVANISED WIRE.
 3. FOR RELEVANT COMPONENTS FOR CONSTRUCTION REF. TO: COM/1/CS/1
 4. ENTRANCE STEP NOT SHOWN IN FRONT ELEVATION.
 5. THIS TYPE OF MOUND LATRINE SHALL BE USED IN AREAS OF HIGH GROUND WATER TABLE WITH GROUND STABILITY POOR OR VERY POOR.
 6. CONSTRUCTION OF THE LATRINE SHALL BE CARRIED OUT, PREFERABLY IN THE DRY SEASON TO ATTAIN THE MAXIMUM DEPTH OF 2150.
 7. DEPTH OF THE SUBSTRUCTURE SHOWN HERE CORRESPOND TO MAX. 2150. BELOW GROUND LEVEL IN ORDER TO ATTAIN MIN. DEPTH OF 1720 - COURSES WITH ALUMINA BRICKS SHALL BE REDUCED IN 1 IN TOTAL 1 AND COURSES WITH SOLID BLOCKS SHALL REMAIN THE SAME.

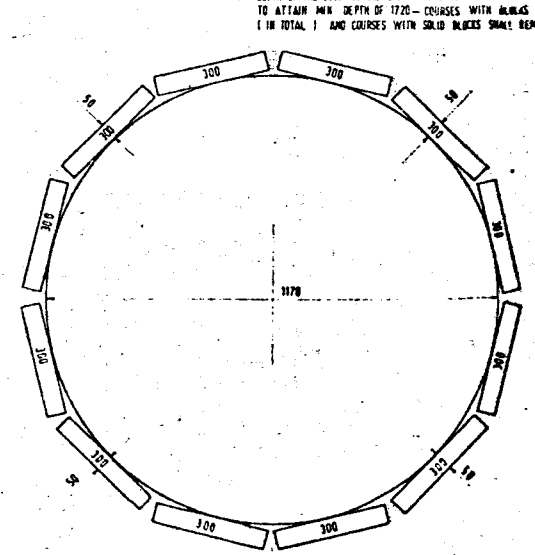


SECTION E-E

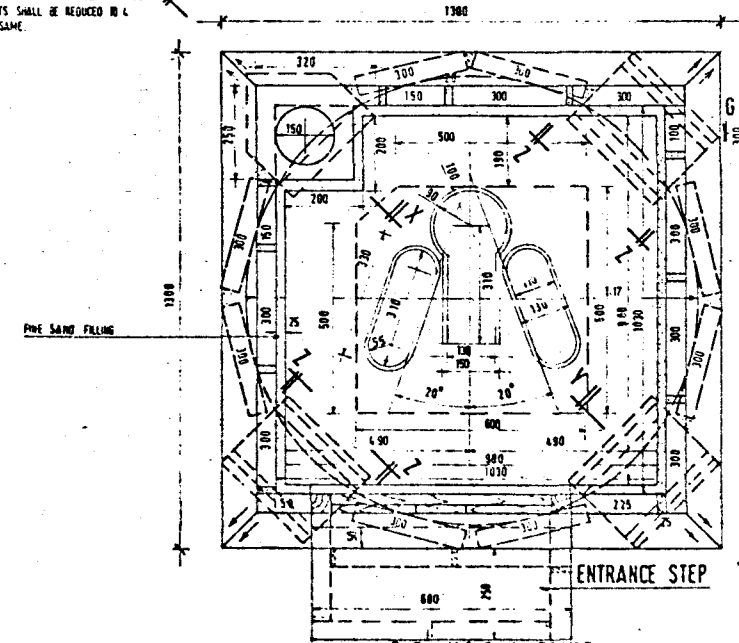
SECTION Y-Y



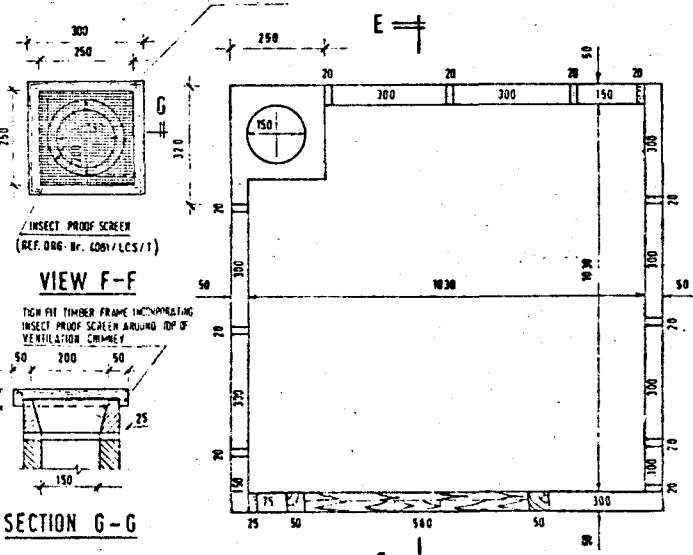
P.E. V.I.P. LATRINE
CIRCULAR TYPE WET PIT - SUBSTRUCTURE FOUNDATION PLAN



P.E. V.I.P. LATRINE
CIRCULAR TYPE WET PIT - SUBSTRUCTURE PLAN



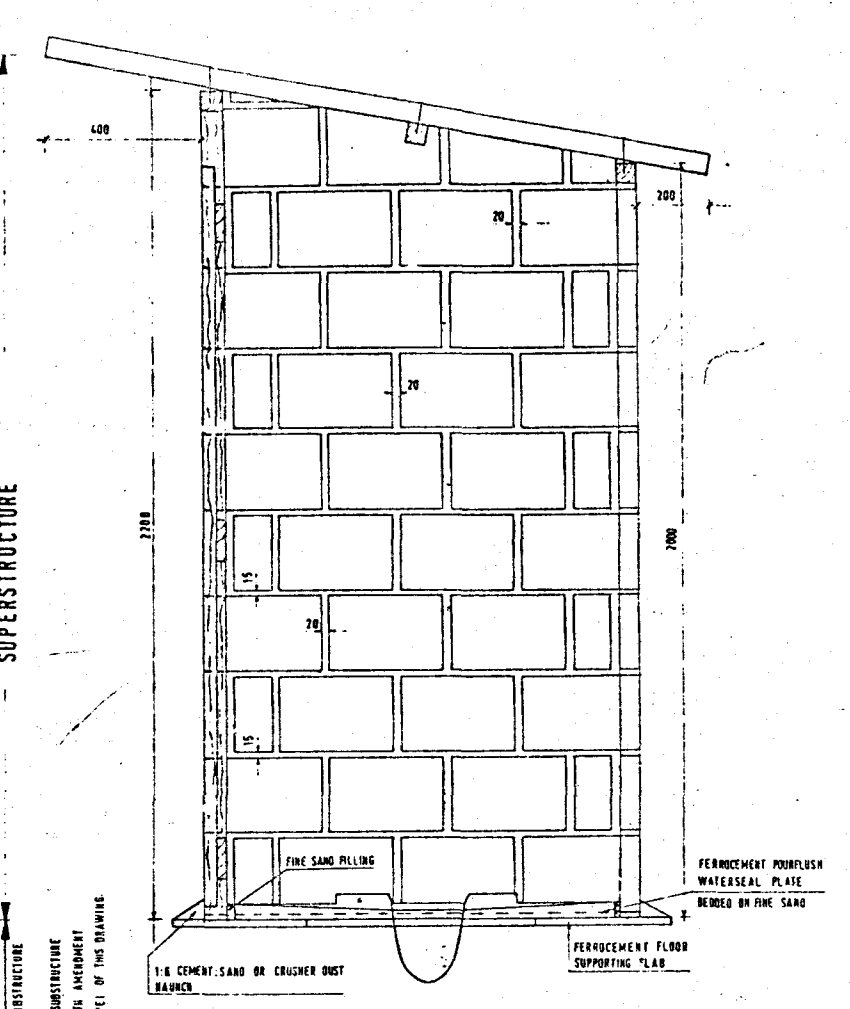
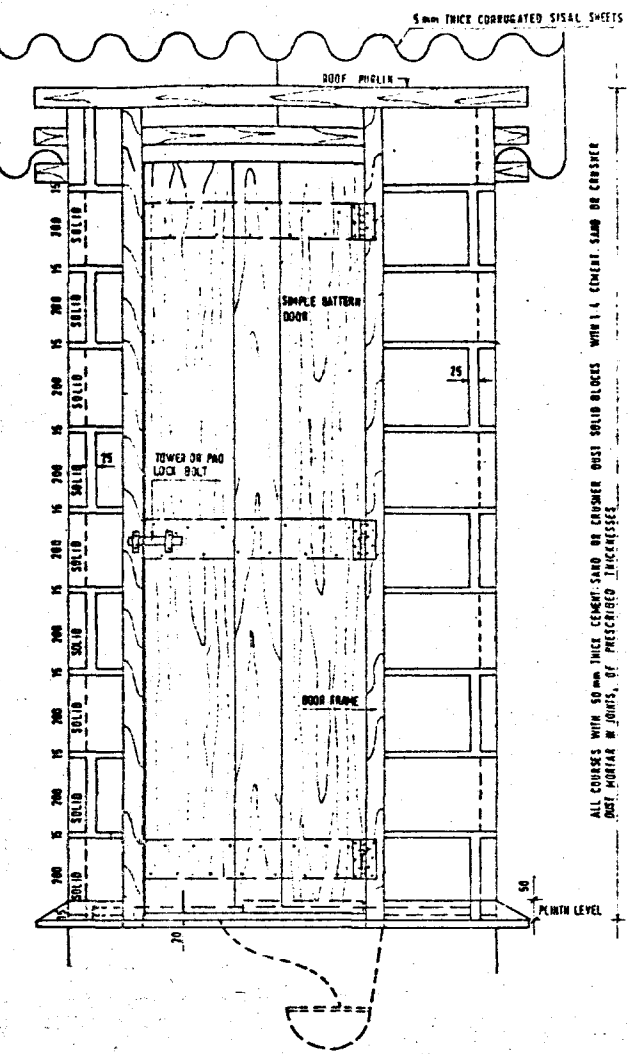
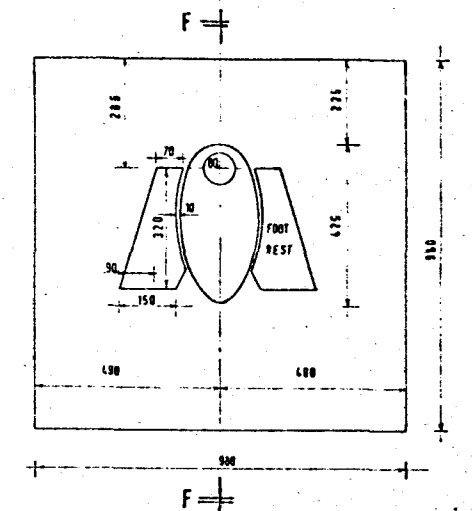
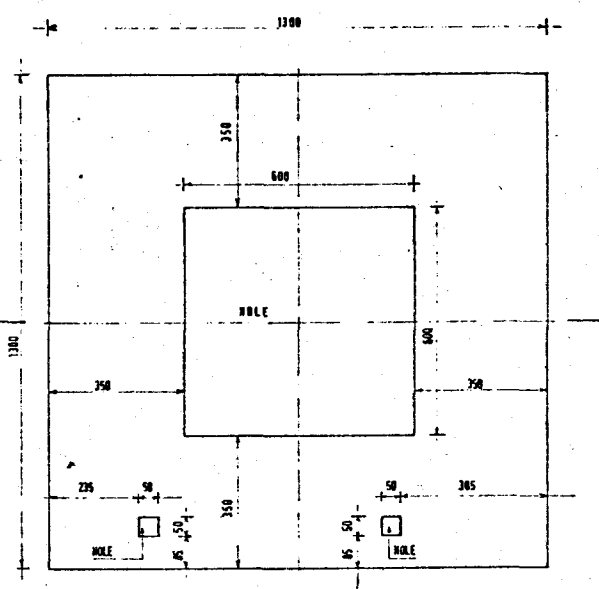
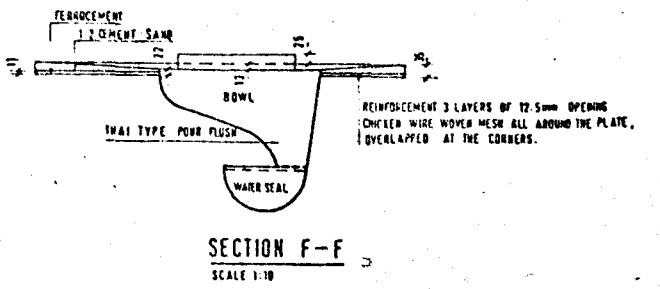
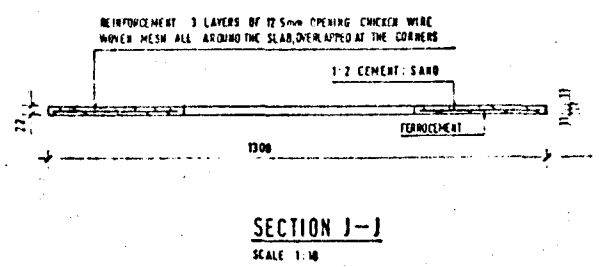
P.E. V.I.P. LATRINE
CIRCULAR TYPE WET PIT - SUPERSTRUCTURE PLAN AT PLINTH LEVEL



P.E. V.I.P. LATRINE
CIRCULAR TYPE WET PIT - SUPERSTRUCTURE PLAN

REFERENCE DRAWINGS	REVISIONS	VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION
AUGUST 1993	FINAL		

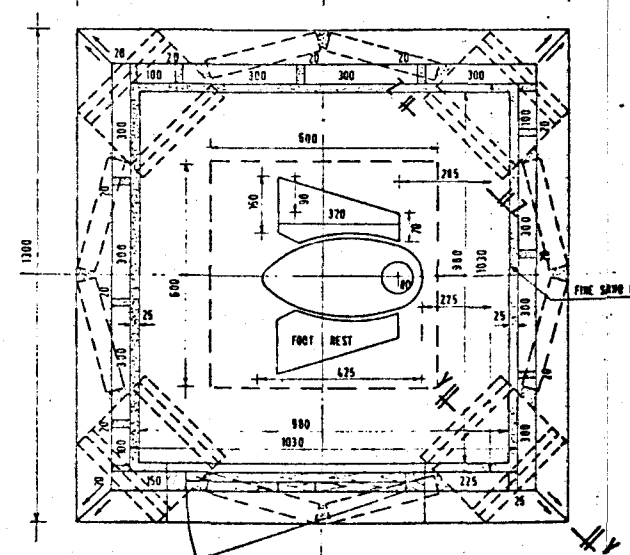
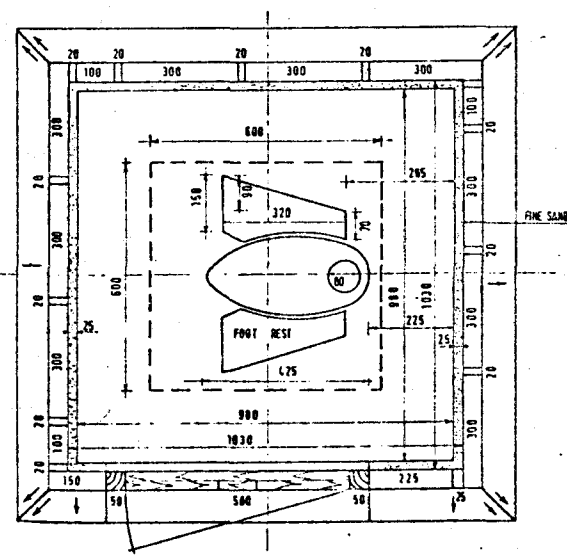
LOCATION BY	
SURVEYED BY	
DESIGNED BY	E. H. AGGARWAL
DRAWN BY	H. L. MAFEMBE
CHECKED BY	H. H. AGGARWAL



P.E. LATRINE WITH POUR FLUSH
CIRCULAR OR SQUARE TYPE DRY OR WET PIT
SUPERSTRUCTURE FRONT ELEVATION.
SCALE 1:10

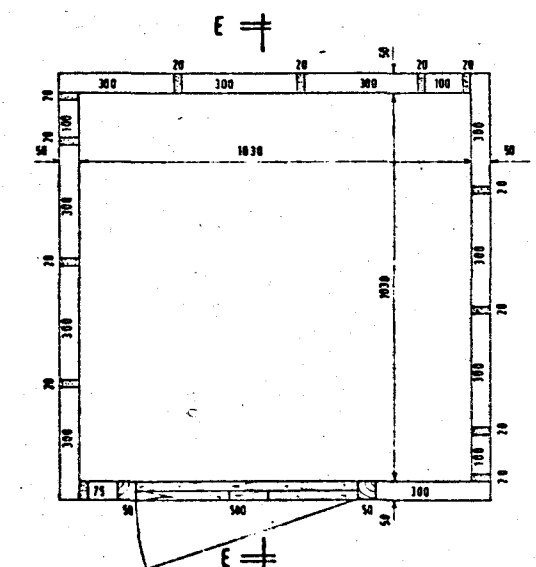
PLAN
FERROCEMENT FLOOR - SUPPORTING SLAB
(IMPERVIOUS AND HARD IN TEXTURE, TOP SURFACE TO BE SMOOTH FINISHED)
SCALE 1:10
NOTE: ALL OTHER COMPONENTS FOR CONSTRUCTION, NOT SHOWN HERE IN SOLID BLOCK, BLOCK WITH LEACHING HOLES, CORBEL L-BLOCK, WOODEN DOOR FRAME, SIMPLE WOODEN BATTEN DOOR, ROOF PURLIN, CORRUGATED SISAL CEMENT SHEET ARE THE SAME AS SHOWN IN DRAWING 4001/LCS/1.

PLAN
FERROCEMENT POUR FLUSH WATERSEAL PLATE
(IMPERVIOUS AND HARD IN TEXTURE, TOP SURFACE TO BE SMOOTH FINISHED)
SCALE 1:10



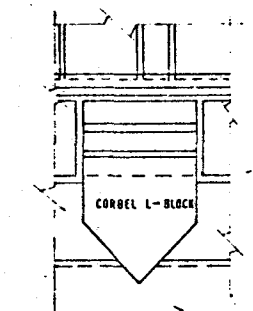
P.E. LATRINE WITH POUR FLUSH
SQUARE TYPE DRY OR WET PIT - SUBSTRUCTURE, SUPERSTRUCTURE.
PLAN AT PLINTH LEVEL
SCALE 1:10

P.E. LATRINE WITH POUR FLUSH
CIRCULAR TYPE DRY OR WET PIT - SUBSTRUCTURE, SUPERSTRUCTURE.
PLAN AT PLINTH LEVEL
SCALE 1:10

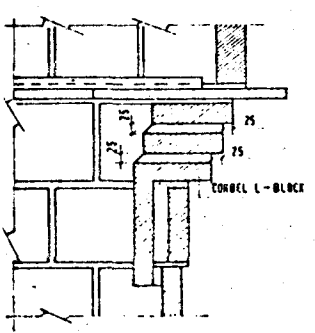


P.E. LATRINE WITH POUR FLUSH
SQUARE & CIRCULAR TYPE, DRY OR WET PIT
SUPERSTRUCTURE PLAN
SCALE 1:10

SECTION E-E
(SHOWN UP TO PLINTH LEVEL ONLY)



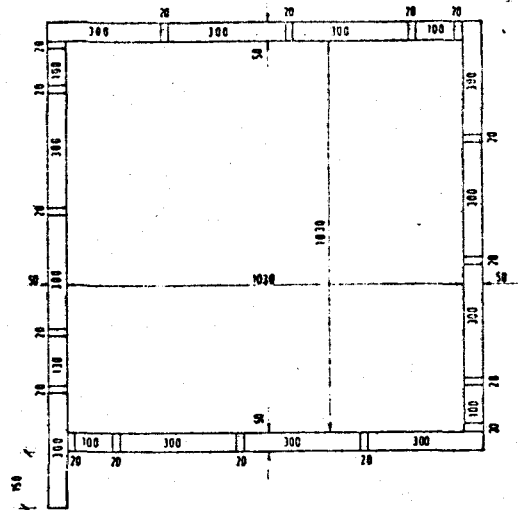
SECTIONAL VIEW Z-Z



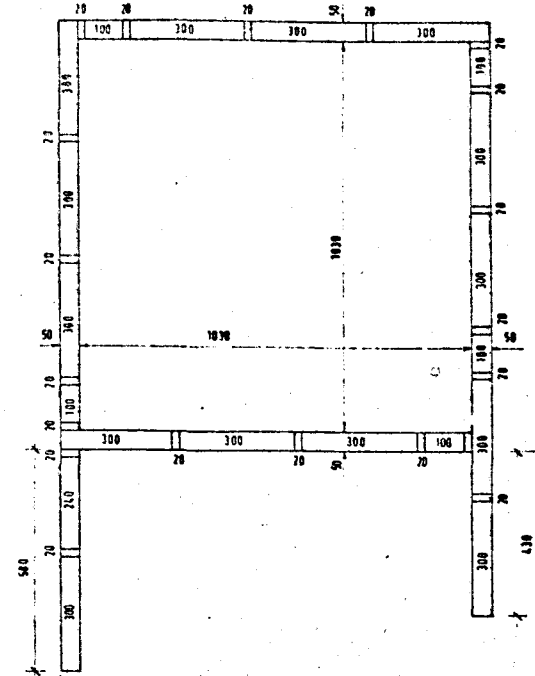
SECTION Y-Y

REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION

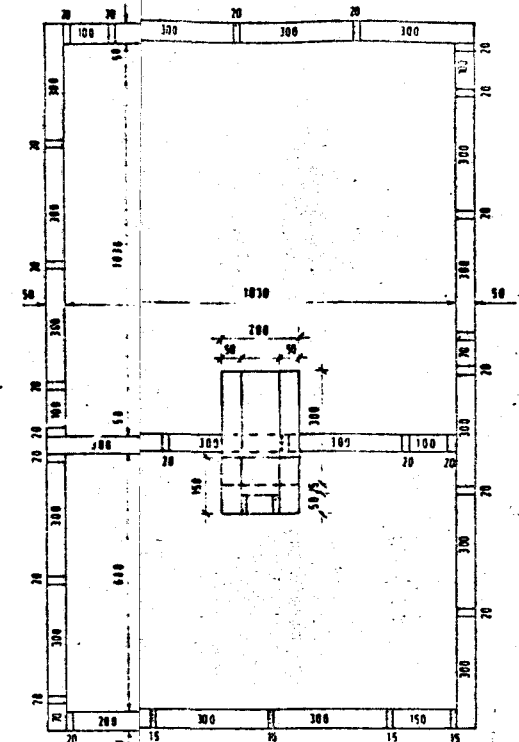
LOCATION BY	
SURVEYED BY	
DESIGNED BY	E. J. AGGARWAL
DRAWN BY	R. L. WAPENBAE
CHECKED BY	M. H. AGGARWAL



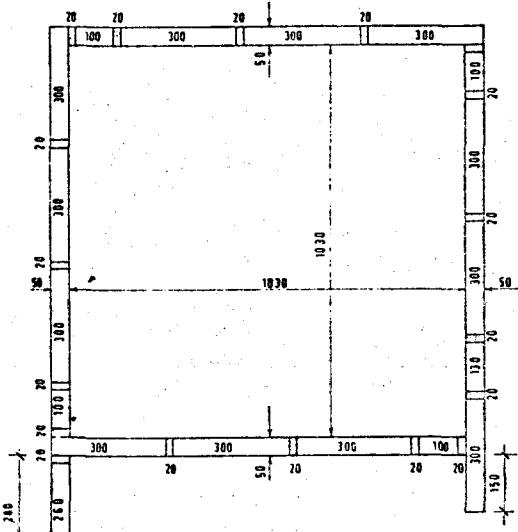
PLAN 8th COURSE - DRY PIT
PLAN 7th COURSE - WET PIT
SCALE 1:10



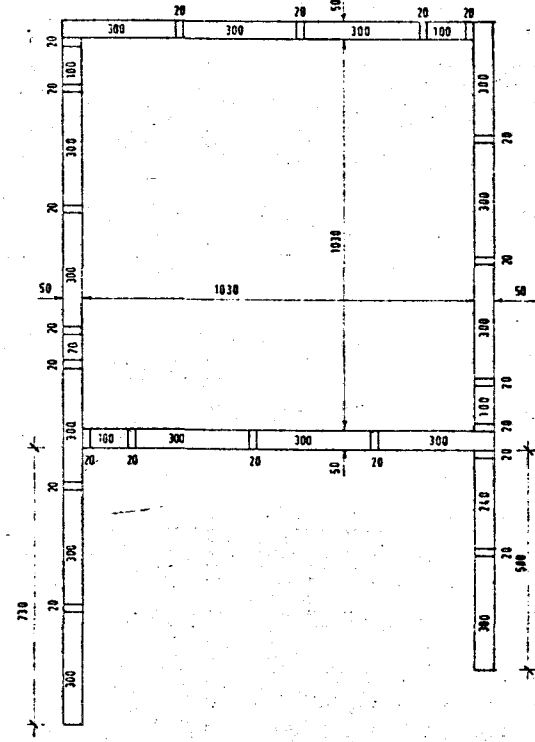
PLAN 11th COURSE - DRY PIT
PLAN 10th COURSE - WET PIT
SCALE 1:10



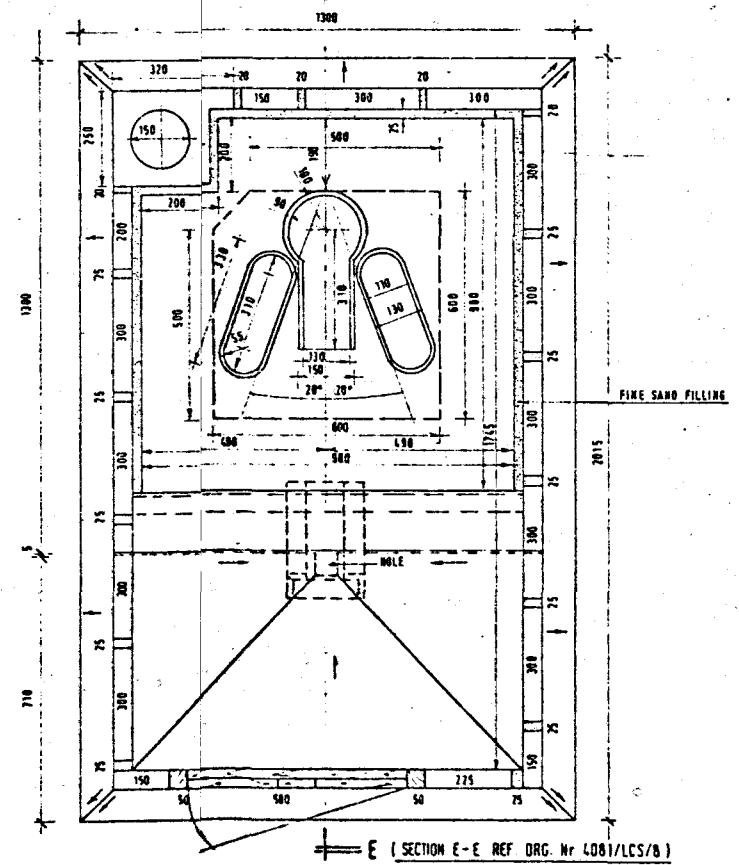
PLAN 13th COURSE - DRY PIT
PLAN 12th COURSE - WET PIT
SCALE 1:10



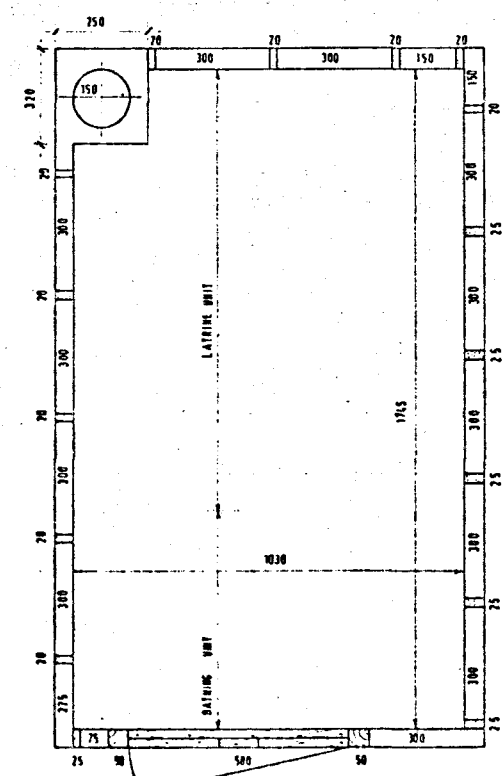
PLAN 9th COURSE - DRY PIT
PLAN 8th COURSE - WET PIT
SCALE 1:10



PLAN 12th COURSE - DRY PIT
PLAN 11th COURSE - WET PIT
SCALE 1:10



P.E. V.I.P. LATRINE - BATHING UNIT
SQUARE TYPE DRY OR WET PIT - SUBSTRUCTURE / SUPERSTRUCTURE
PLAN AT PLINTH LEVEL
SCALE 1:10



P.E. V.I.P. LATRINE - BATHING UNIT
SQUARE TYPE DRY OR WET PIT SUPERSTRUCTURE PLAN
SCALE 1:10

- NOTE:
1. FOR SUBSTRUCTURE BELOW 6th COURSE OF DRY PIT REF. DRG. Nr. 4081/LCS/2
 2. FOR SUBSTRUCTURE BELOW 9th COURSE OF WET PIT REF. DRG. Nr. 4081/LCS/4
 3. CONNECTING DRAWING Nr. 4081/LCS/8
 4. FOR RELEVANT COMPONENTS FOR CONSTRUCTION REF. DRG. Nr. 4081/LCS/8 & 1

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF LANDS HOUSING
AND URBAN DEVELOPMENT
URBAN PLANNING DIVISION

REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		AUGUST 1983	FINAL		

H.P. GAUFF GmbH

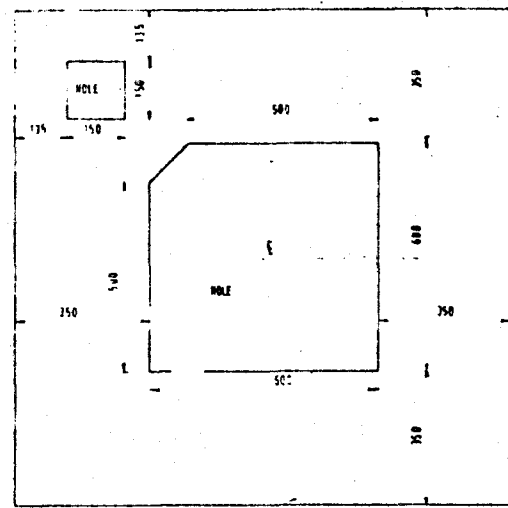
CONSULTING ENGINEERS
P.O. Box 4351
DAR-ES-SALAAM

LOCATION BY	
SURVEYED BY	
DESIGNED BY	E. K. AGGARWAL
DRAWN BY	R. L. HAPEMBE
CHECKED BY	M. N. ANANDH
DATE	

SCALE: 1:10
ALL DIMENSIONS ARE IN MILLIMETRES

LOW COST SANITATION PILOT PROJECT

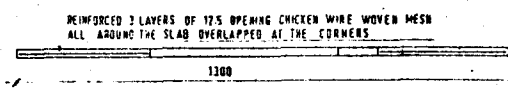
PERMANENT EMPTYABLE VENTILATED IMPROVED LATRINE -
BATHING UNIT WITH CORBELLED SUBSTRUCTURE - PIT LINING
TO SUPPORT FLOOR SLAB OF BATHING AREA



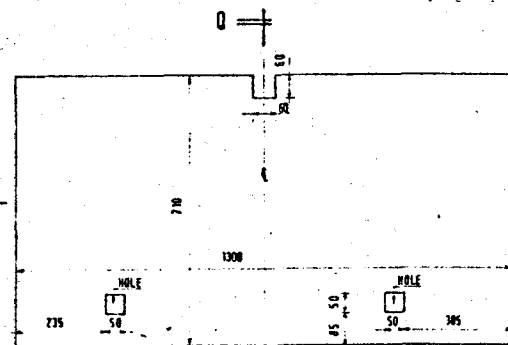
PLAN
FEROCEMENT FLOOR - SUPPORTING SLAB
(IMPERVIOUS AND HARD IN TEXTURE, TOP SURFACE TO BE SMOOTH FINISHED)



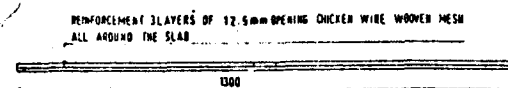
SECTION D-D
SCALE 1:10



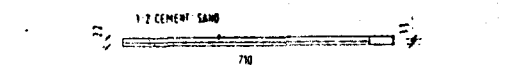
SECTION C-C
SCALE 1:10



PLAN
FEROCEMENT FLOOR - SUPPORTING SLAB - BATHING PLATE
(IMPERVIOUS AND HARD IN TEXTURE, TOP SURFACE TO BE SMOOTH FINISHED)

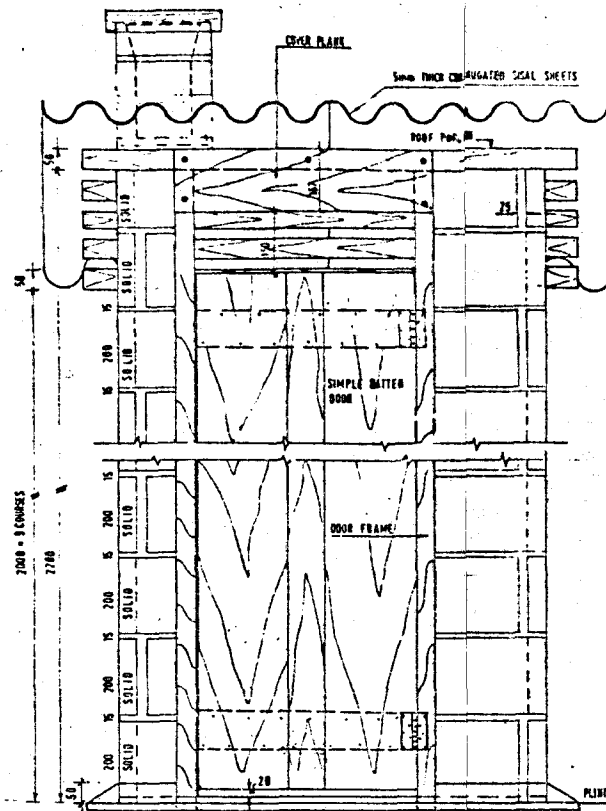


SECTION P-P
SCALE 1:10

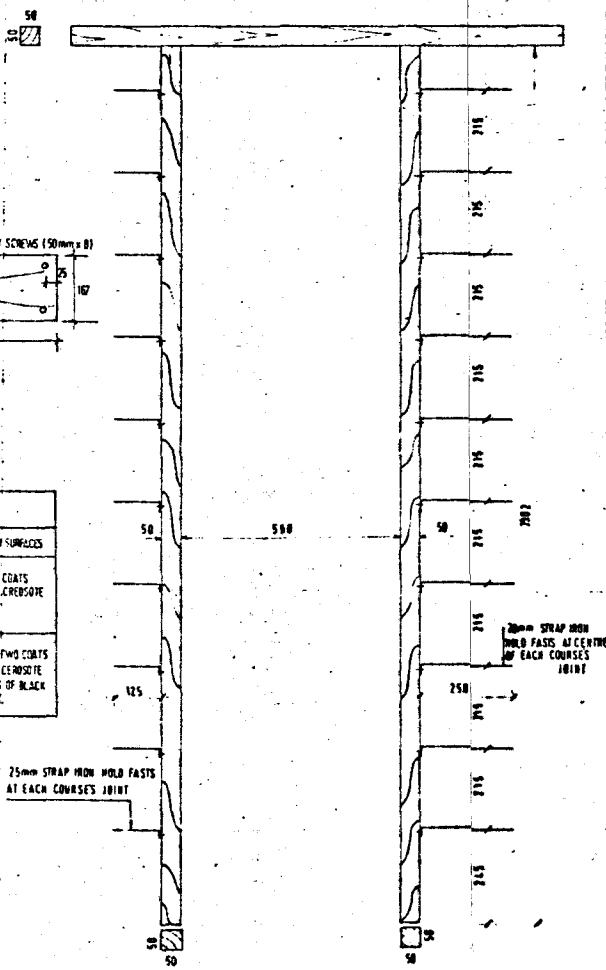


SECTION Q-Q

ALL COURSES WITH 50mm THICK/50mm IN HEIGHT CEMENT SAND OR CRUSHER DUST MIXTURE IN JOINTS, OF PRESCRIBED THICKNESSES WITH 1.4 CEMENT SAND OR CRUSHER DUST MIXTURE IN JOINTS, OF PRESCRIBED THICKNESSES

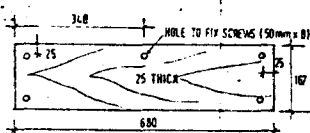


SUPERSTRUCTURE FRONT ELEVATION
SCALE 1:10



WOODEN DOOR FRAME
SCALE 1:10

TO BE ASSEMBLED AT THE CONSTRUCTION SITE
ON THE LATHING BY THE CONSTRUCTION WORKER OF THE LOCALITY



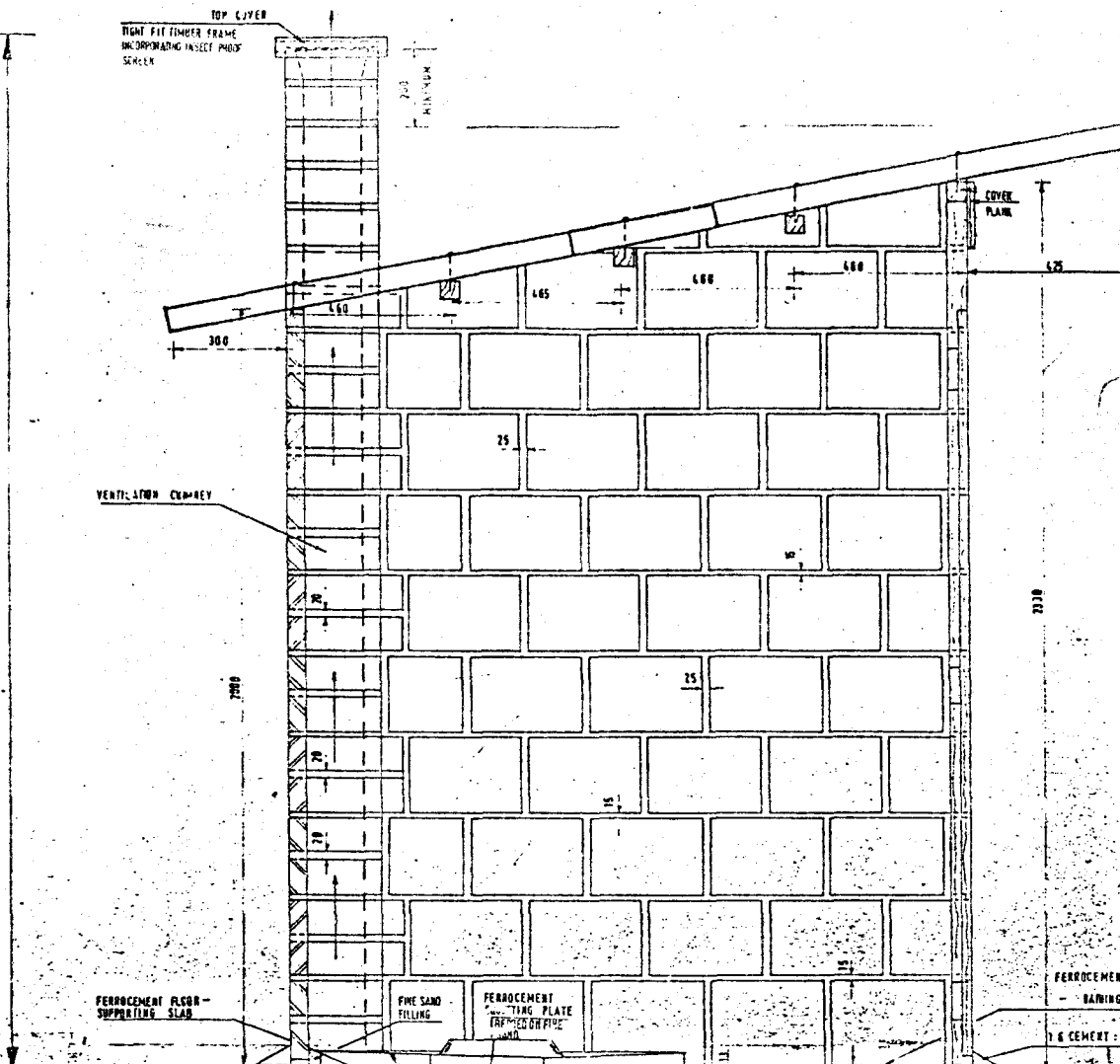
SOFT WOOD - COVER PLANK
SCALE 1:10

WOOD TREATMENT - PAINTING SCHEDULE OF COMPONENTS	
WOOD COMPONENT	SCHEDULE FOR ALL WOODEN SURFACES
DOOR FRAME DOOR ROOF PURLINS COVER PLANK	TO BE APPLIED WITH 2 COATS OF WOOD PRESERVATIVE, CREOSOTE OR...
TIMBER FRAME INCORPORATING INSECT PROOF SCREEN	TO BE APPLIED WITH TWO COATS OF WOOD PRESERVATIVE CREOSOTE OIL INITIALLY - 2 COATS OF BLACK BITUMEN PAINT FINALLY.

SUPERSTRUCTURE

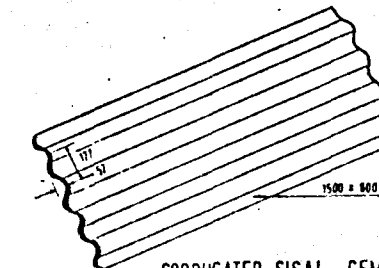
SUPERSTRUCTURE

SUBSTRUCTURE



SECTION E-E
SCALE 1:10
REF. DRG. No. 4401/LCS/77

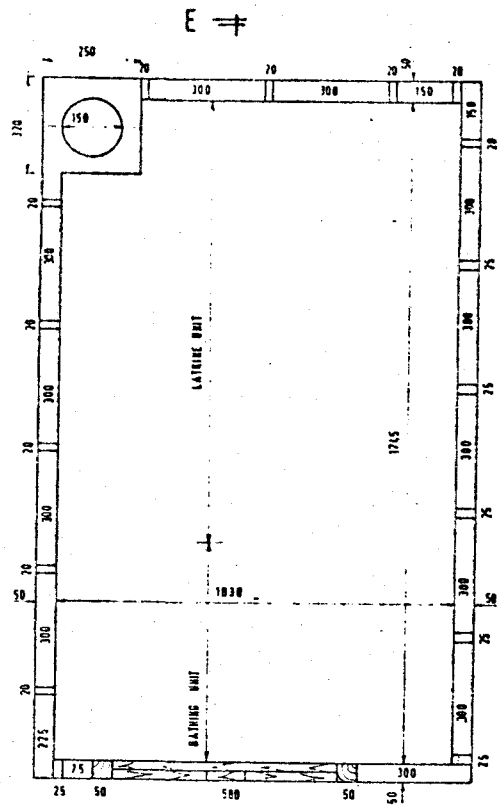
- NOTE:**
- ALL OTHER COMPONENTS FOR CONSTRUCTION, NOT SHOWN HERE IN SOLID BLOCK, BLOCK WITH LEACHING HOLES, VENTILATION CHIMNEY BLOCKS, ROOF PURLINS, SIMPLE WOODEN BATTEN DOOR, TIMBER FRAME INCORPORATING INSECT PROOF SCREEN ARE THE SAME AS SHOWN IN DRG. 4401/LCS/77
 - CORRECTING DRAWING BY 4401/LCS/77
 - ALL THE COURSES OF SUBSTRUCTURE SHALL BE BUILT WITH 1:3 CEMENT SAND OR CRUSHER DUST MIXTURE IN JOINTS
 - THIS LATHING - BATHING UNIT SHALL ONLY BE USED WHERE THE SUN - SOIL CAPACITY TO ABSORB WATER LEACHED OUT FROM THE PIT EXCEEDS THE ADDITIONAL WATER ADDED, ESTIMATED AT 25 LITRES/CAPITA/DAY FROM THE BATHING FACILITY



CORRUGATED SISAL CEMENT SHEET

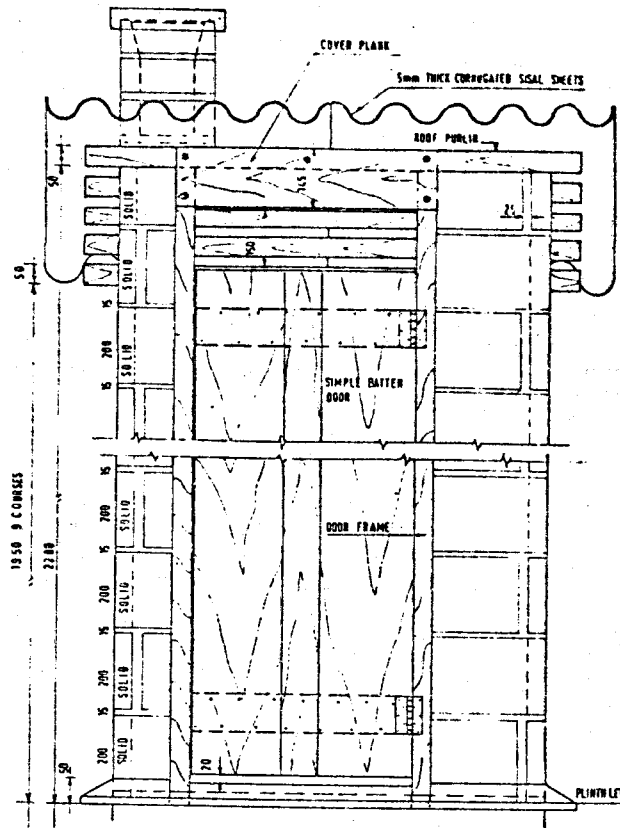
REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		AUGUST 1983	FINAL		

LOCATION BY	
SURVEYED BY	
DESIGNED BY	R. R. AGGARWAL
DRAWN BY	R. L. HAPENBE
CHECKED BY	M. H. APPROVED



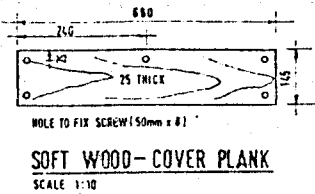
P.E. V.I.P. LATRINE — BATHING UNIT
 SQUARE & CIRCULAR TYPE, DRY OR WET PIT
 SUPERSTRUCTURE PLAN
 SCALE 1:10

ALL COURSES WITH 50mm THICK/50mm IN HEIGHT CEMENT SAND OR CRUSHER DUST SAND VENTILATING CHIMNEY BLOCKS WITH 1:4 CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS, OF PRESTRIED TECHNIQUES

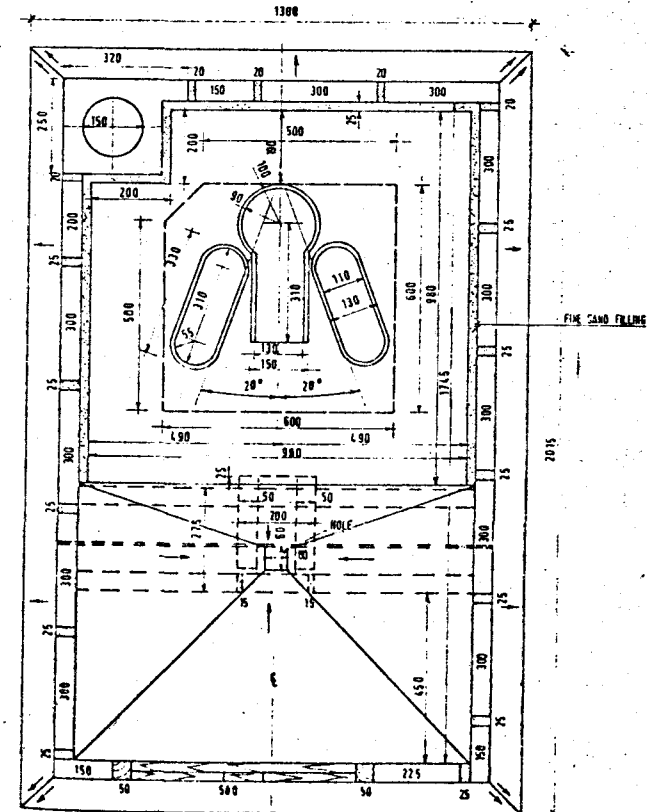


P.E. V.I.P. LATRINE — BATHING UNIT
 CIRCULAR OR SQUARE TYPE DRY OR WET PIT
 SUPERSTRUCTURE FRONT ELEVATION
 SCALE 1:10

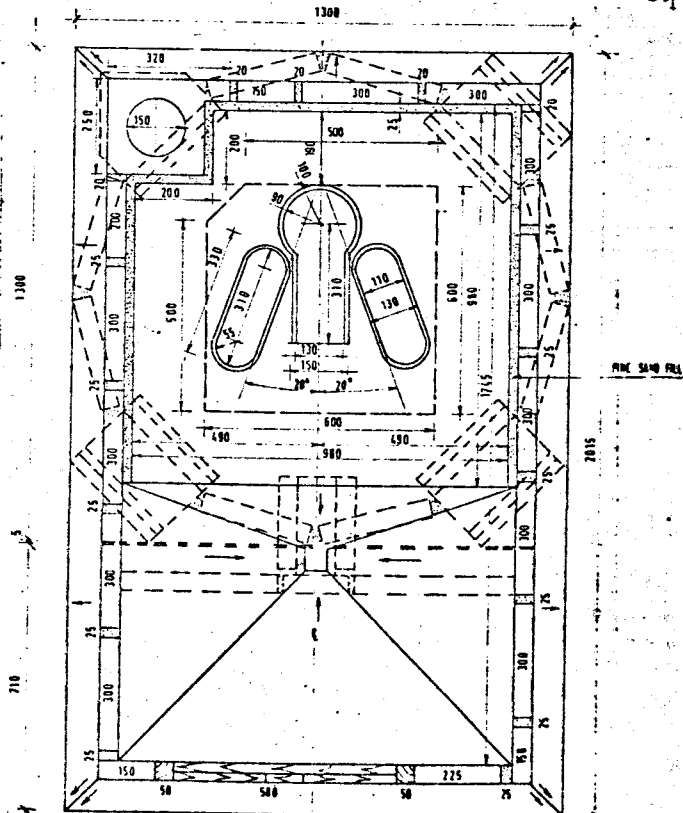
SUPERSTRUCTURE
SUBSTRUCTURE



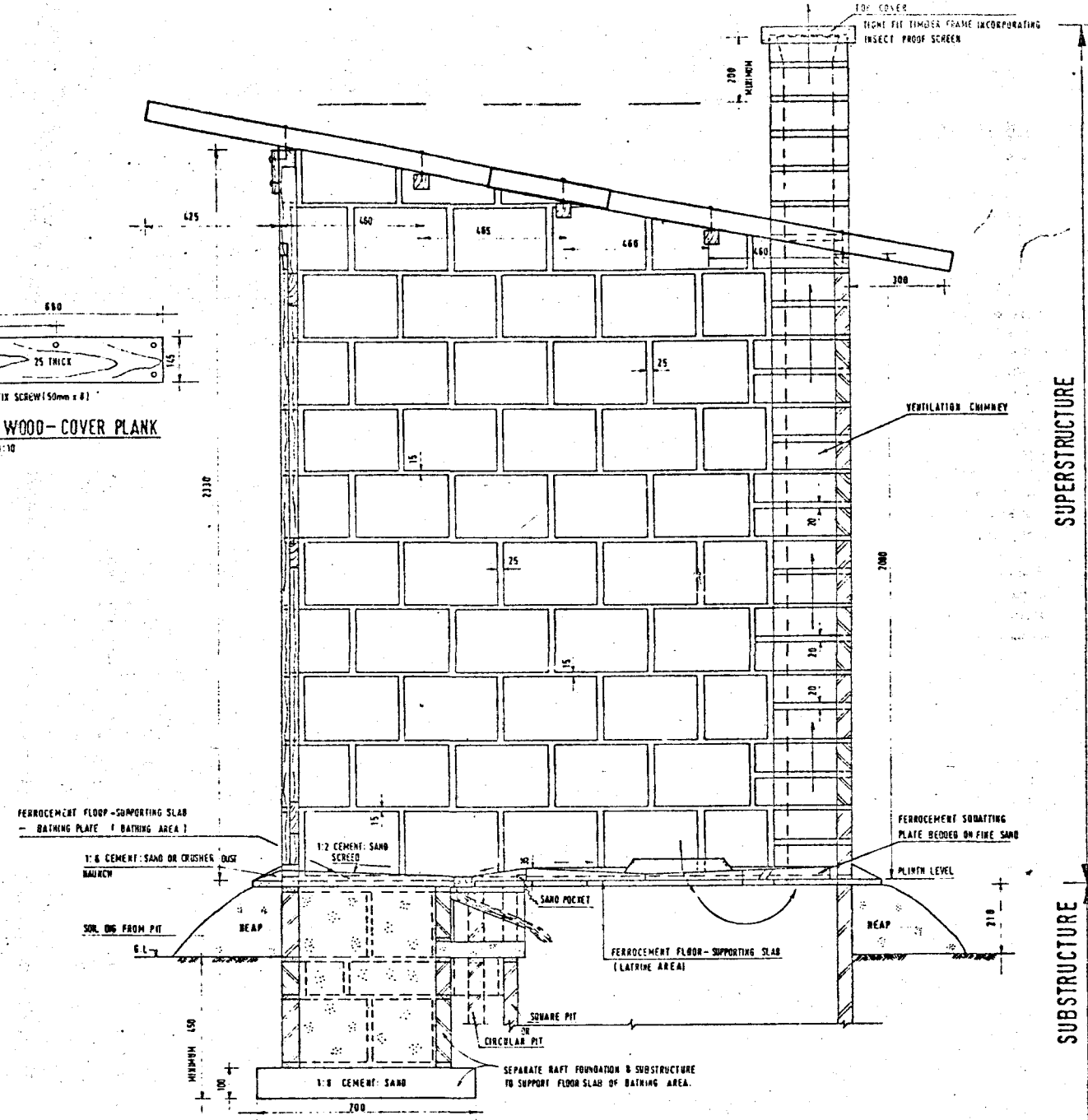
SOFT WOOD — COVER PLANK
 SCALE 1:10



P.E. V.I.P. LATRINE — BATHING UNIT
 SQUARE TYPE DRY OR WET PIT — SUBSTRUCTURE, SUPERSTRUCTURE
 PLAN AT PLINTH LEVEL
 SCALE 1:10



P.E. V.I.P. LATRINE — BATHING UNIT
 CIRCULAR TYPE DRY OR WET PIT — SUBSTRUCTURE, SUPERSTRUCTURE
 PLAN AT PLINTH LEVEL
 SCALE 1:10



SECTION E-E
 SCALE 1:10

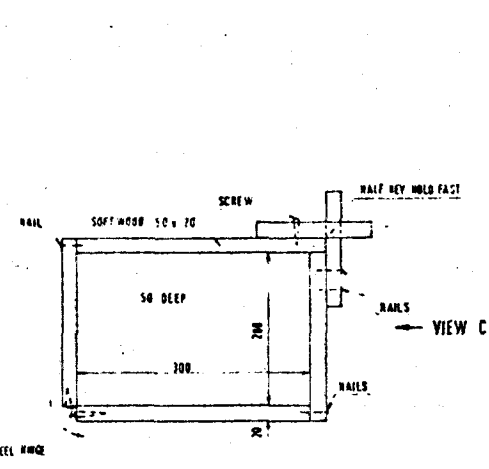
SUPERSTRUCTURE
SUBSTRUCTURE

FOR SQUARE TYPE DRY OR WET PIT SUBSTRUCTURE REF. DMS. NO. L001/LCS/1, 2 & 3
 FOR CIRCULAR TYPE DRY OR WET PIT SUBSTRUCTURE REF. DMS. NO. L001/LCS/1, 4 & 5

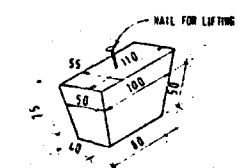
- NOTE: FOR RELEVANT COMPONENTS FOR CONSTRUCTION REF. DMS. NO. L001/LCS/1 & 8
- 1.0. FOR FERROCEMENT FLOOR-SUPPORTING SLAB, FERROCEMENT FLOOR-SUPPORTING SLAB — BATHING PLATE AND WOODEN DOOR FRAME — REF. DMS. L001/LCS/8
 - 1.1. FOR SOLID BLOCK, BLOCK WITH LEADING HOLES, VENTILATION CHIMNEY BLOCKS, CORREL L-BLOCK, SIMPLE WOODEN BATTER DOOR, ROOF PURLIN AND TIMBER FRAME INCORPORATING INSECT PROOF SCREEN — REF. DMS. L001/LCS/1
 2. ALL COURSES OF THE SUBSTRUCTURE SHALL BE BUILT WITH 1:3 CEMENT SAND OR CRUSHER DUST MORTAR IN JOINTS.
 3. THIS LATRINE — BATHING UNIT SHOULD ONLY BE USED WHERE THE SUB-SOIL CAPACITY TO ABSORB WATER LEACHED OUT FROM THE PIT EXCEEDS THE ADDITIONAL WATER ADDED, ESTIMATED, AT 25 LITRES / CAPITA / DAY FROM THE BATHING FACILITY

REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		08/01/1993	FINAL		

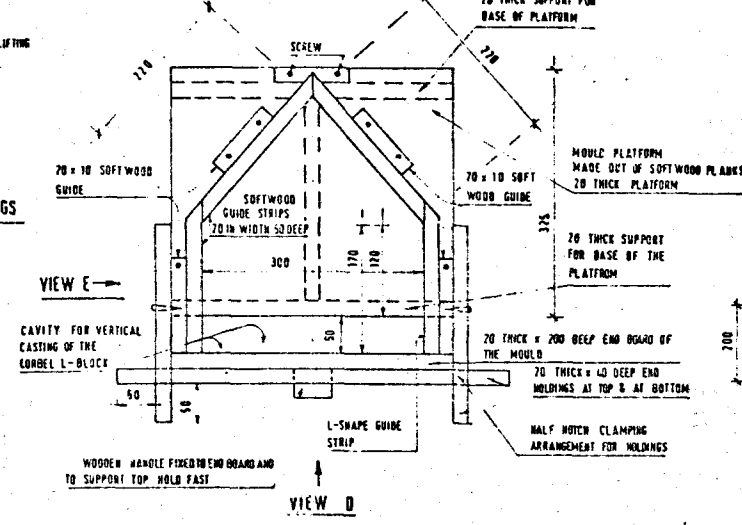
LOCATION BY	
SURVEYED BY	
DESIGNED BY	E. E. AGGARWAL
DRAWN BY	R. L. MAFEMBE
CHECKED BY	M. H. AGGARWAL



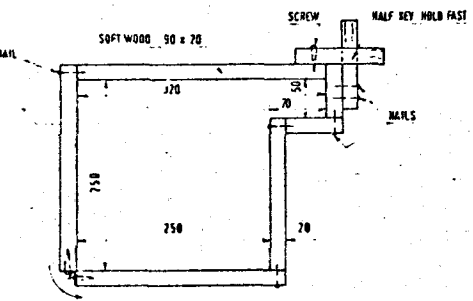
MASTER MOULD FOR CASTING OF SOLID BLOCKS AND BLOCKS WITH LEACHING HOLES
SCALE 1:5



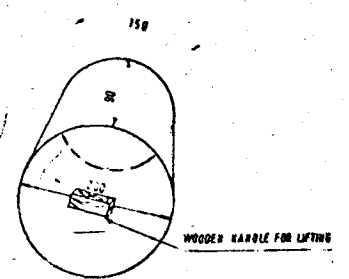
2 N^r SOFT WOOD TAPERED PLUGS TO CAST BLOCK WITH LEACHING HOLES.
SCALE 1:5



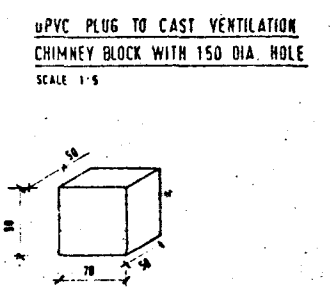
WOODEN MOULD FOR CASTING OF CORBEL L-BLOCK
SCALE 1:5



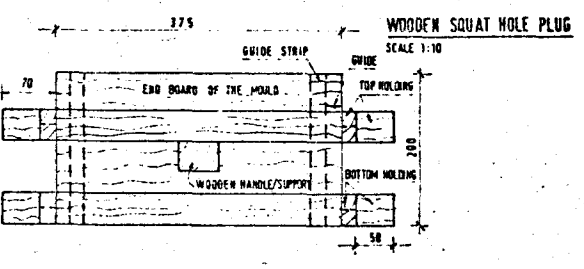
MASTER MOULD FOR CASTING OF VENTILATION CHIMNEY BLOCKS
SCALE 1:5



TAPERED 200 TO 150 DIA. SOFTWOOD PLUG TO CAST VENTILATION CHIMNEY BLOCK WITH TAPERED HOLE
SCALE 1:5

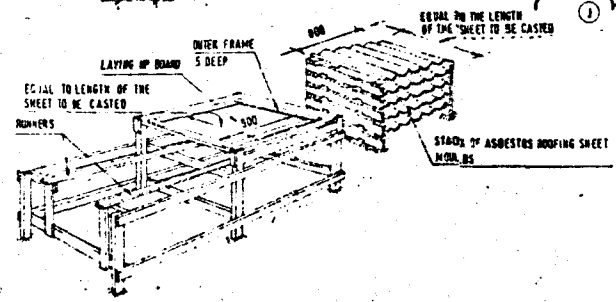


UPVC PLUG TO CAST VENTILATION CHIMNEY BLOCK WITHOUT LIMB
SCALE 1:5

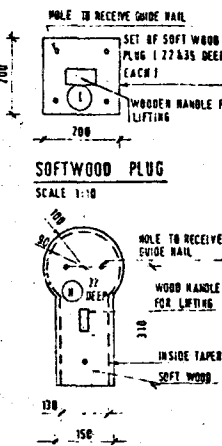


WOODEN SQUAT HOLE PLUG
SCALE 1:10

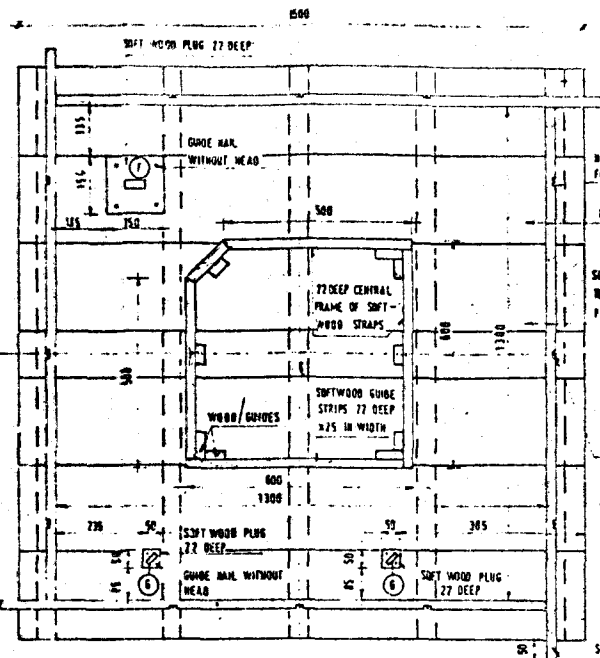
VIEW D
SCALE 1:5



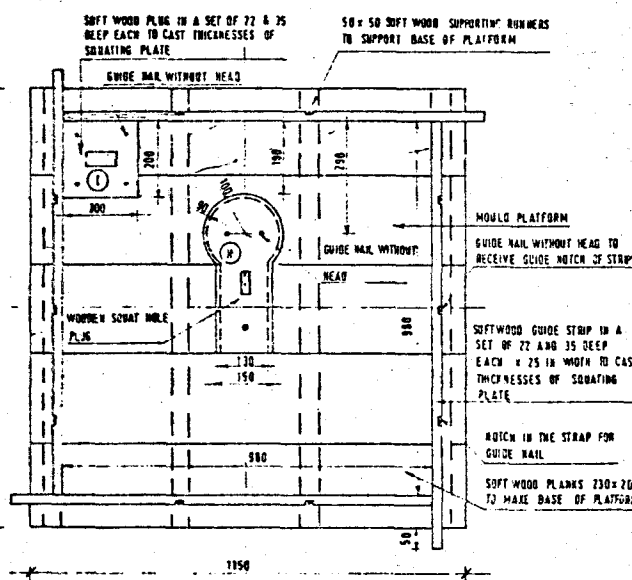
ASBESTOS ROOFING SHEET MOULD AND ASSOCIATED WOODEN ACCESSORIES FOR CASTING OF CEMENT-SISAL ROOFING SHEETS
NOT TO SCALE



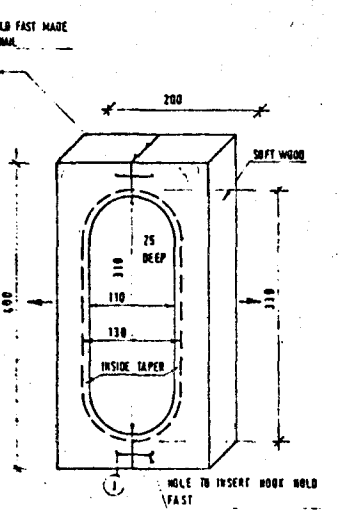
SOFTWOOD PLUG
SCALE 1:10



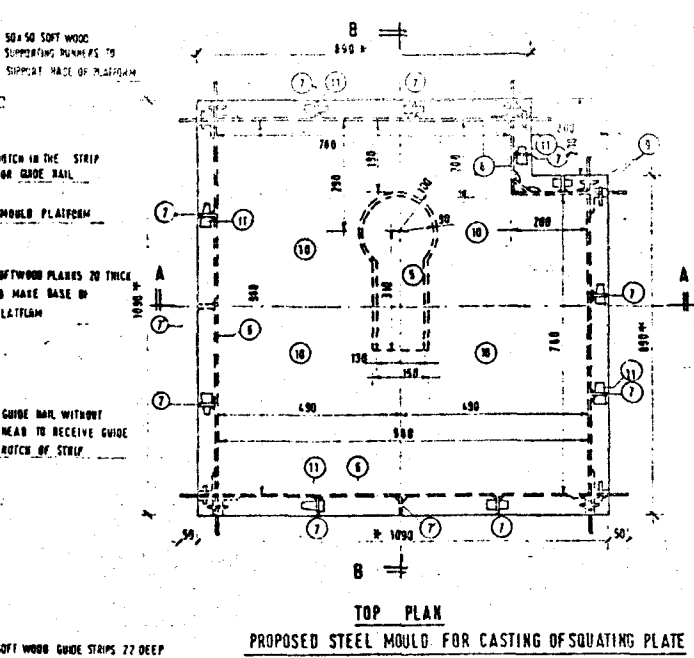
WOODEN FLOOR FOR CASTING OF FERROCEMENT FLOOR-SUPPORTING SLAB
SCALE 1:10



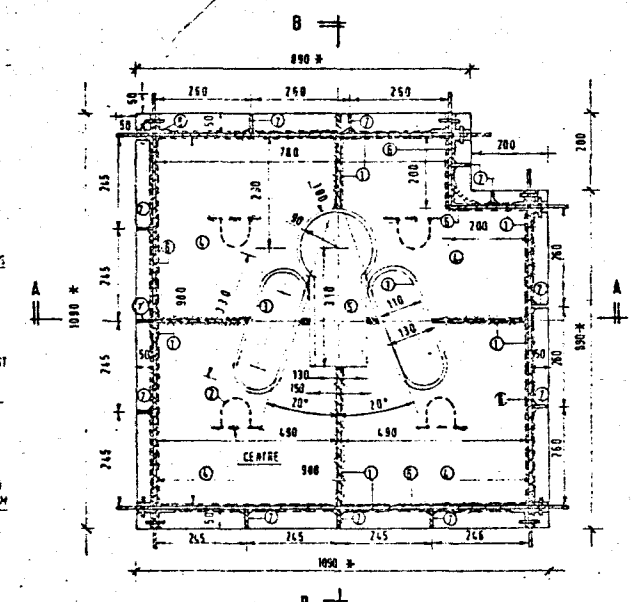
WOODEN MOULD FOR CASTING OF FERROCEMENT SQUATTING PLATE
SCALE 1:10



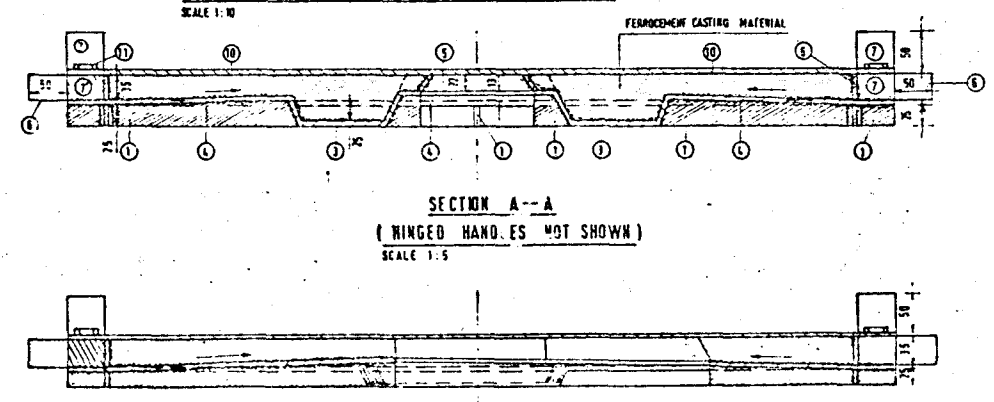
WOODEN MOULD FOR CASTING OF FOOT RESTS OF SQUATTING PLATE
SCALE 1:5



TOP PLAN
PROPOSED STEEL MOULD FOR CASTING OF SQUATTING PLATE (WITH TOP COVER - CASTING MATERIAL IN MOULD)
SCALE 1:10



CROSS SECTIONAL PLAN
PROPOSED STEEL MOULD FOR CASTING OF SQUATTING PLATE (WITHOUT TOP COVER - CASTING MATERIAL IN MOULD)
SCALE 1:10



SECTION A-A (HINGED HANDS NOT SHOWN)
SCALE 1:5









SECTION B-B (HINGED HANDS NOT SHOWN)
SCALE 1:5

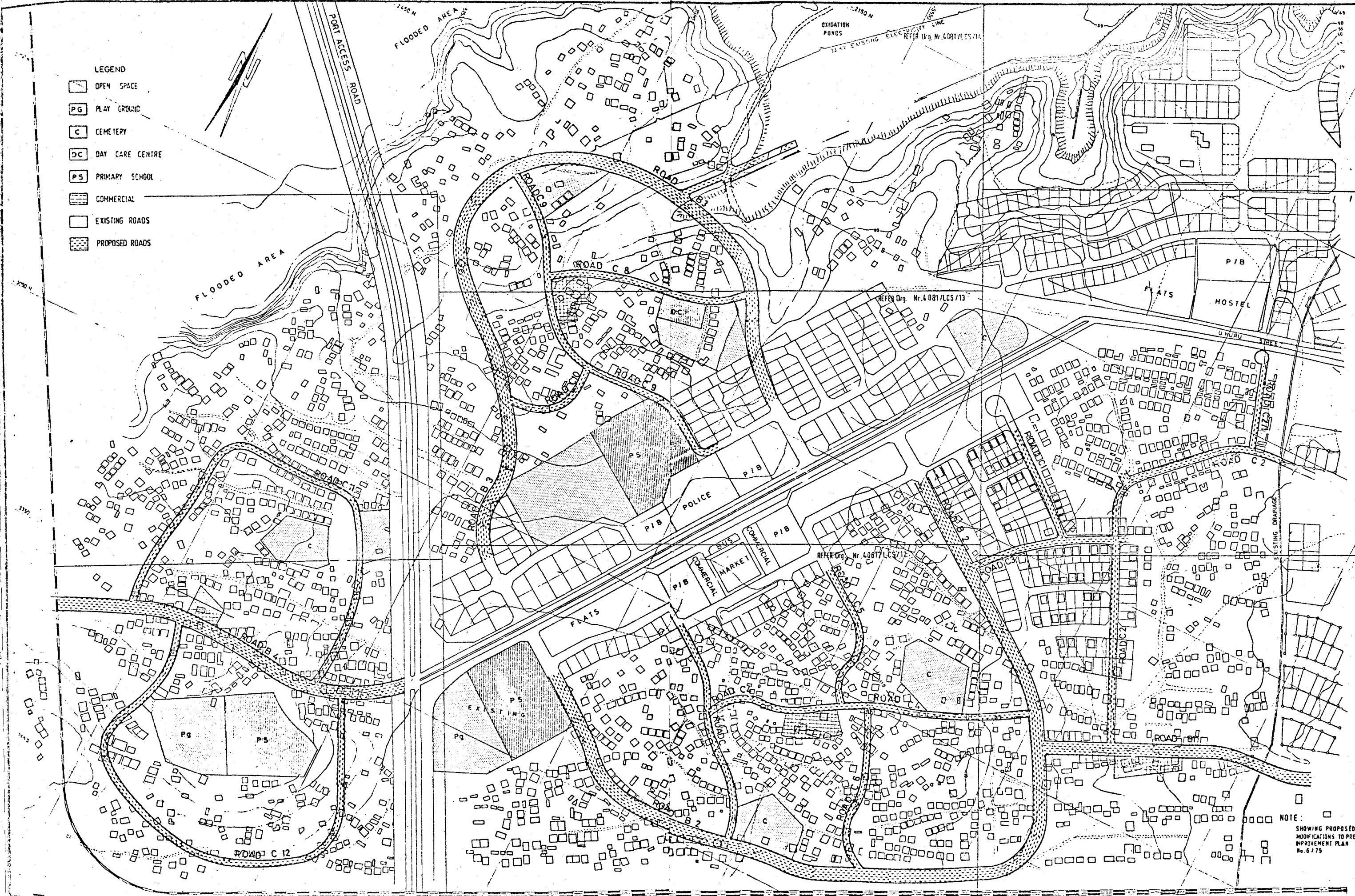
NOTES:
- ALL DIMENSIONS ARE IN MILLIMETRES
- ALL HOLES IN THE STEEL SHOULD BE SPACING ENOUGH, APPROPRIATE WITH SUFFICIENT THICKNESSES
- DIMENSIONS MARKED WITH + OR - CAN BE INCREASED TO 1140, 540 IN ORDER TO HAVE SUFFICIENT SPACE FOR THE PROVISION OF APPROPRIATE M.S. PLATE TAPERED KEY HOLES. PARTS 9 & 11 - IN CASE NOT POSSIBLE WITH DIMENSIONS OF 1090, 650.

- EXPLANATIONS OF STEEL MOULD PARTS
- 5mm THICK M.S. PLATE SUPPORTING AND LEVELLING FRAME WELDED TO THE BOTTOM OF BASE MOULD PLATE.
 - 5mm DIAMETER, 75mm x 75mm RIBBED BARS WELDED TO THE BOTTOM OF BASE MOULD PLATE TO LIFT THE MOULD.
 - 5mm THICK M.S. PLATE FOOT RESTS WELDED TO THE BOTTOM OF BASE MOULD PLATE - HENCE PART OF THE BASE MOULD PLATE.
 - 5mm THICK M.S. BASE MOULD PLATE WITH DRAINING PROFILES SLOPING TOWARDS SQUAT HOLE FROM THE CASTED OUTER EDGES OF THE MOULD.
 - 5mm THICK M.S. PLATE SIDE MOULD FRAME WITH HALF NOTCH JOINTS AT THE CORNERS.
 - 5mm THICK M.S. BRACING PLATES, WELDED TO THE MOULD FRAME EXTENDED THROUGH TOP COVER OF THE MOULD FOR (7) & WITHOUT EXTENSION FOR (7).
 - 5mm THICK ANGLE IRON GUIDES TO THE SIDE MOULD FRAME, WELDED TO THE TOP OF BASE MOULD PLATE AT THE CORNERS - HENCE PART OF THE BASE MOULD PLATE.
 - APPROPRIATE M.S. PLATE TAPERED KEY HOLES THROUGH ANGLE IRON GUIDES AND SIDE MOULD FRAME.
 - 5mm THICK M.S. PLATE, TOP COVER OF THE MOULD.
 - APPROPRIATE M.S. PLATE TAPERED KEY HOLES THROUGH PARTS (7) SEVER.

REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
AUGUST 1993			FINAL		

DESIGNED BY	K. R. AGGARWAL
DRAWN BY	K. L. HAFENBE
CHECKED BY	K. R. AGGARWAL

- LEGEND**
-  OPEN SPACE
 -  PLAY GROUND
 -  CEMETERY
 -  DAY CARE CENTRE
 -  PRIMARY SCHOOL
 -  COMMERCIAL
 -  EXISTING ROADS
 -  PROPOSED ROADS



NOTE:
SHOWING PROPOSED
MODIFICATIONS TO PRELIMINARY
IMPROVEMENT PLAN
No. 6175

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF LANDS HOUSING
AND URBAN DEVELOPMENT
URBAN PLANNING DIVISION

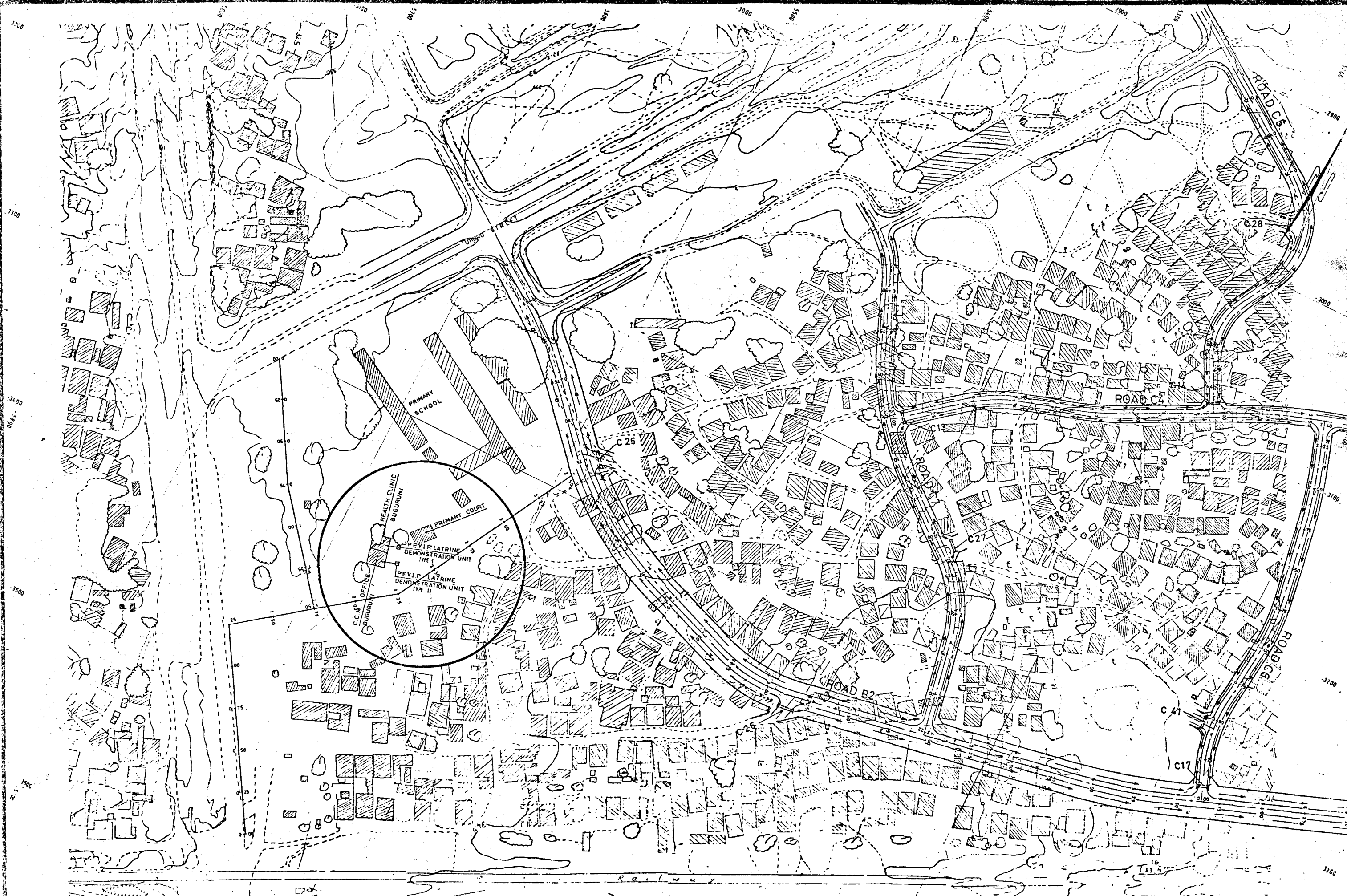
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
AUGUST 1983	FINAL				

H.P. GAUFF GmbH
CONSULTING ENGINEERS
P.O. BOX 4351
DAR - ES - SALAAM

LOCATION BY	
SURVEYED BY	
DESIGNED BY	R. K. AGARWAL
DRAWN BY	T. E. MURAMBO
CHECKED BY	M. K. AGARWAL
CORR FILE NO	

SCALE 1:2500

LOW COST SANITATION PILOT PROJECT
SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS
REFERENCE PLAN
DATE FEBRUARY 1983
Drg. Nr. 4.081/LCS/11



THE UNITED REPUBLIC OF TANZANIA
 MINISTRY OF LANDS HOUSING
 AND URBAN DEVELOPMENT

REFERENCE DRAWINGS	REVISIONS	VARIATIONS	
TYPE	DESCRIPTION	DATE	DESCRIPTION
	FINAL	AUGUST 1983	

H.P. GAUFF GmbH
 CONSULTING ENGINEERS
 P.O. Box 4351
 DAR-ES-SALAAM

LOCATION	BY
SURVEYED	By
DESIGNED	By K.R. AGGARWAL
DRAWN	By T.I. MURHAMBO
CHECKED	By
CORR. FILE	

SCALE: 1:1000

LOW COST SANITATION PILOT PROJECT
 SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS
 DATE FEBRUARY 1983
 DRG. No. 4021/LCS/12 (SHEET 1 OF 11)



THE UNITED REPUBLIC OF TANZANIA
 MINISTRY OF LANDS HOUSING AND URBAN DEVELOPMENT

REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		AUGUST 1983	FINAL		

H.P. GAUFF GmbH
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LOCATION	BY
SURVEYED	BY
DESIGNED	BY K.K. ASGARWAL
DRAWN	BY F.L. MSHAMBO
CHECKED	BY K.K. ASGARWAL

SCALE: 1:1000

LOW COST SANITATION PILOT PROJECT
 SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS



DESIGNED BY
DRAWN BY
CHECKED BY

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF LANDS HOUSING
AND URBAN DEVELOPMENT

REFERENCE DRAWINGS		REVISIONS		VARIATIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
		AUGUST 1983	FINAL		

H.P. GAUFF GmbH
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DAB. GE. SALAMA

LOCATION OF	
SURVEYED BY	
DESIGNED BY	E. R. AGGARWAL
DRAWN BY	T. I. NGWANGU
CHECKED BY	E. R. AGGARWAL

SCALE: 1:1000

LOW COST SANITATION PILOT PROJECT
SITES FOR CONSTRUCTION OF DEMONSTRATION UNITS