

CABLE DETAILS

CABLE DETAILS: LIST OF DRAWINGS

DT 01/C	TYPICAL DUCT DETAIL FOR CABLE SLEEVES UNDER DRIVEWAYS
DT 02/C	TYPICAL MANHOLE FOR POWER AND DATA CABLES
DT 03/C	TYPICAL DUCT DETAIL FOR CABLE SLEEVES UNDER WALKWAYS
DT 04/C	STEEL LADDER IN MANHOLE DETAIL
DT 05/C	SECTION OF 1000mmØ HDPE MANHOLE
DT 06/C	TYPICAL WELDING DETAILS FOR HDPE CABLE MANHOLE PLAN
DT 07/C	TYPICAL WELDING DETAILS FOR HDPE CABLE MANHOLE SECTION C
DT 08/C	TYPICAL WELDING DETAILS FOR HDPE CABLE MANHOLE



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0001
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departmental
DIAGRAMMATIC CIVIL
ENGINEERING DETAILS
FOR DOLOMITIC SOILS.

title
CABLE:
CABLE DETAILS
LIST OF DRAWINGS.

scale
N. A.

date
22/06/2006

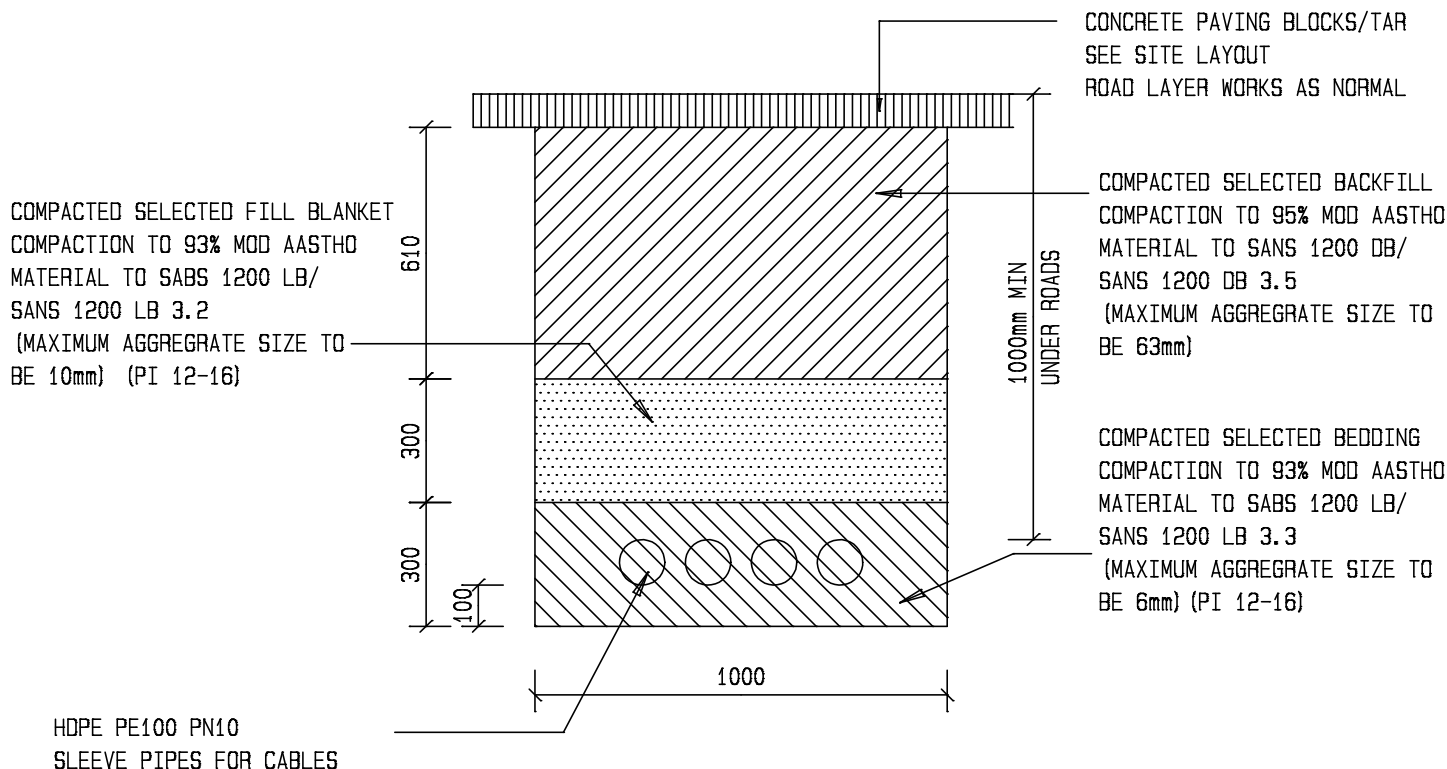
drawing number / type number
TYPE NO DT 00/C

NOTE:
SLEEVES PIPES TO BE HDPE PE100
PN10 SABS ISO 4427/SANS 4427

600mm MUST BE ALLOWED FOR
BETWEEN POWER CABLES TRENCH
AND DATA CABLES TRENCH

SLEEVE SPACING APPROVAL

DATE:
SIGNED:
ELECTRICAL ENGINEER



TYPICAL DUCT DETAIL FOR CABLE SLEEVES UNDER DRIVEWAYS

SEE SABS 1200 LC-1981
FOR PIPE SPACING
ALL DIMENSIONS TO BE
SPECIFIED OR INDICATED
BY ENGINEER.

MANUFACTURING NOTE:
SLEEVE SPACING TO SUIT
FUSION COUPLING - 50mm
BETWEEN SLEEVES MINIMUM

NOTE:
ALL BACKFILL MATERIALS SHALL
AFTER COMPACTION BE LESS
PERMEABLE THAN THE IN-SITU
SURROUNDING SOIL.



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title
TYPICAL DUCT DETAIL FOR
CABLES SLEEVES UNDER
DRIVEWAYS (DIAGRAMATIC)

scale
1 : 20

date
22/06/2006

drawing number / type number
TYPE NO DT 01/C

HOLES FOR ALL PIPES THROUGH CONCRETE
TO BE DIAMETER PLUS 20mm. SEAL OPENINGS
WITH 25mm DEEP POLYSULPHIDE ON IN AND
OUTSIDE OF WALL.
(ALTERNATIVE PUDDLE FLANGE ON PIPE)

600mmØ (SABS 558 / SANS 558)
MANHOLE COVER AND FRAME FOR ROADS
(HEAVY DUTY) - LOCKABLE
SEE ENGINEERS SPECIFICATION

SMOOTH OF
SHUTTER FINISH

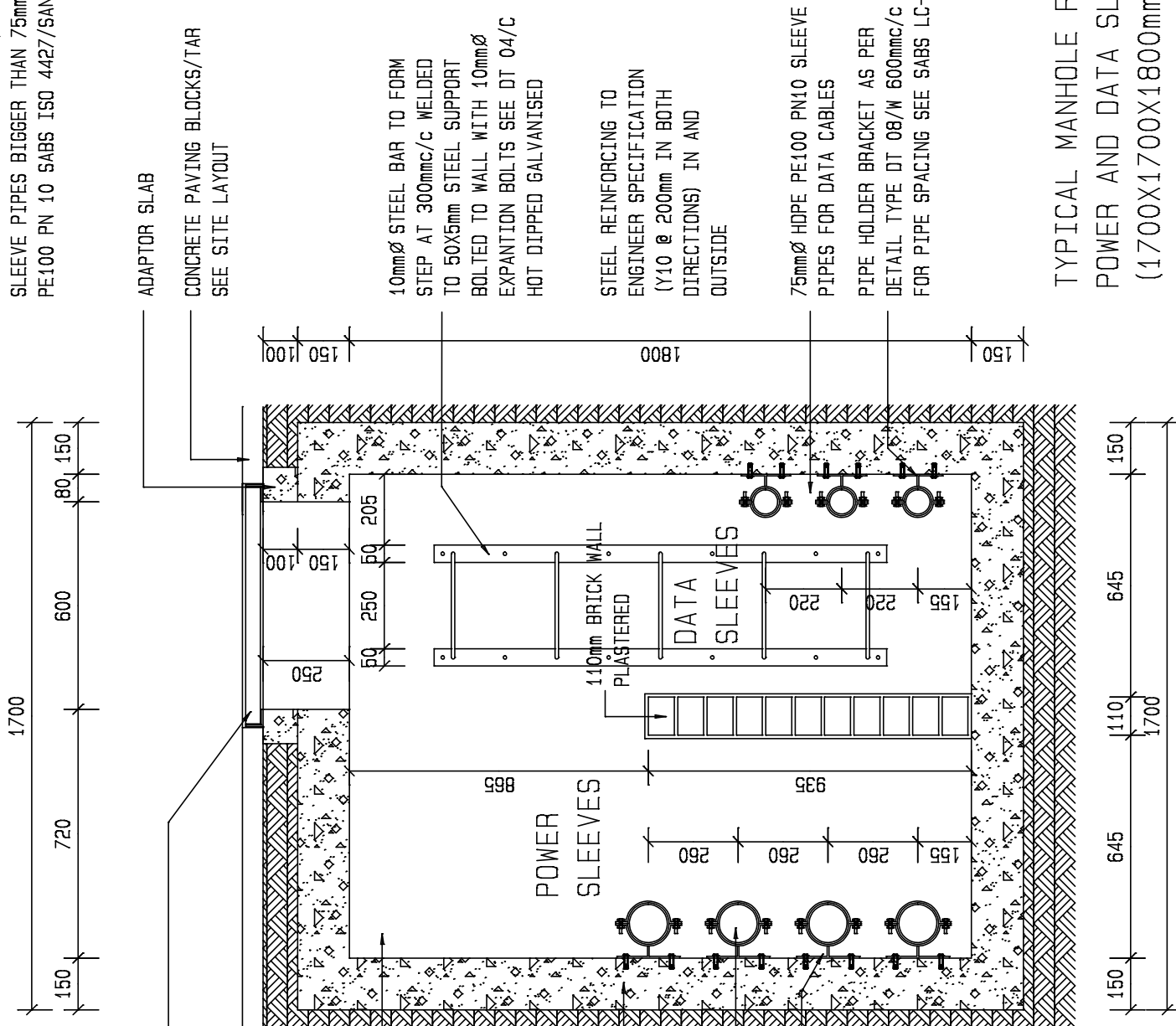
25MPa/19mm
CONCRETE MANHOLE

110mmØ HDPE PE100 PN10
SLEEVE PIPES FOR POWER
CABLES

PIPE HOLDER BRACKET AS PER
DETAIL TYPE DT 08/W 600mmc max.
FOR PIPE SPACING SEE SABS LC-1981

BACKFILLING COMPACTED AROUND
MANHOLE TO 93% MOD ASSTHO
DENSITY IN LAYERS OF 150mm
PERMEABILITY TO BE LOWER
THAN THE SURROUNDING SOIL

TYPICAL MANHOLE FOR
POWER AND DATA SLEEVES
(1700X1700X1800mm DB)



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title
CABLING
MANHOLE FOR POWER
AND DATA CABLES

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scale
1:20

date
22/06/2006

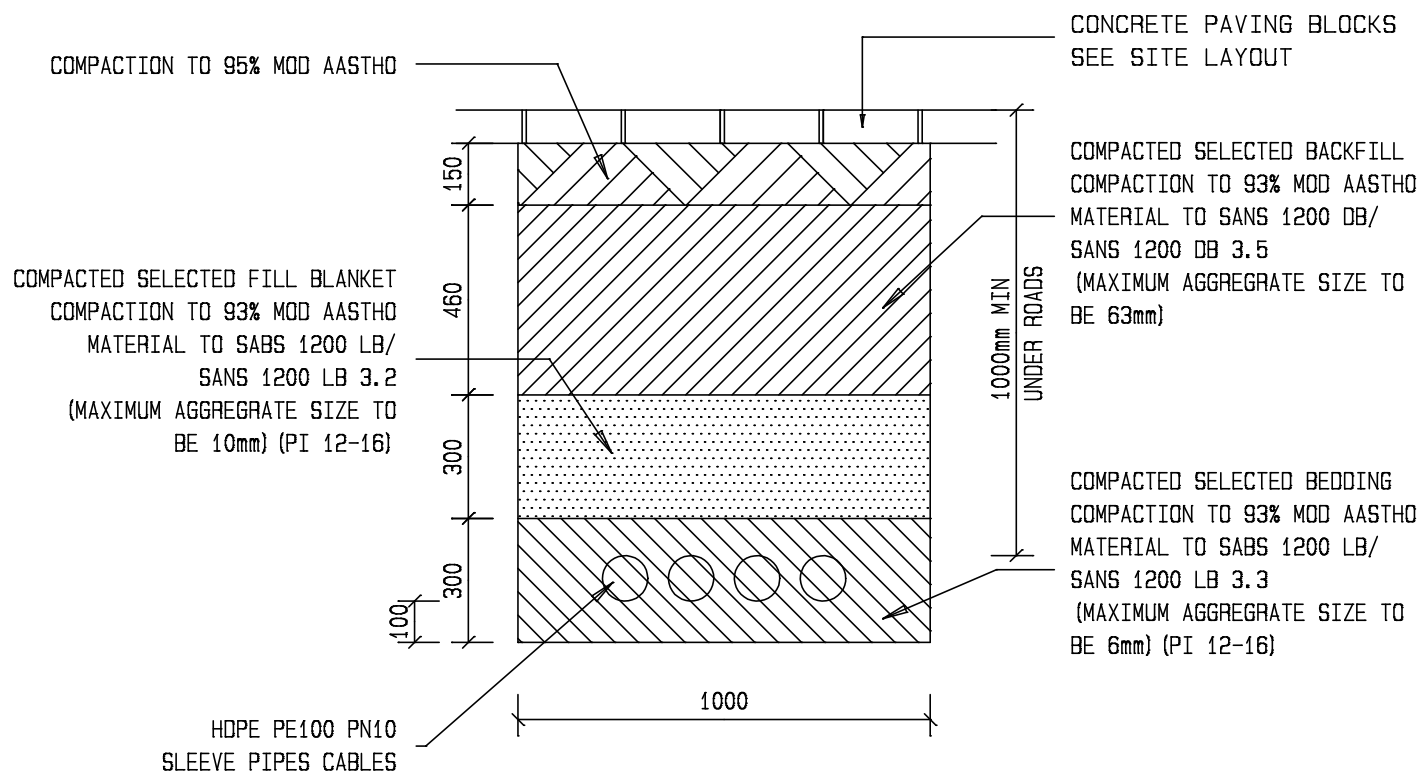
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NOTE:
SLEEVES PIPES TO BE HDPE PE100
PN10 SABS ISO 4427/SANS 4427

600mm MUST BE ALLOWED FOR
BETWEEN POWER CABLES TRENCH
AND DATA CABLES TRENCH

SLEEVE SPACING APPROVAL

DATE:
SIGNED:
ELECTRICAL ENGINEER



TYPICAL DUCT DETAIL FOR CABLE SLEEVES UNDER WALKWAYS

SEE SABS 1200 LC-1981
FOR PIPE SPACING

ALL DIMENSIONS TO BE
SPECIFIED OR INDICATED
BY ENGINEER.

MANUFACTURING NOTE:
SLEEVE SPACING TO SUIT
FUSION COUPLING - 50mm
BETWEEN SLEEVES MINIMUM

NOTE:
ALL BACKFILL MATERIALS SHALL
AFTER COMPACTION BE LESS
PERMEABLE THAN THE IN-SITU
SURROUNDING SOIL.

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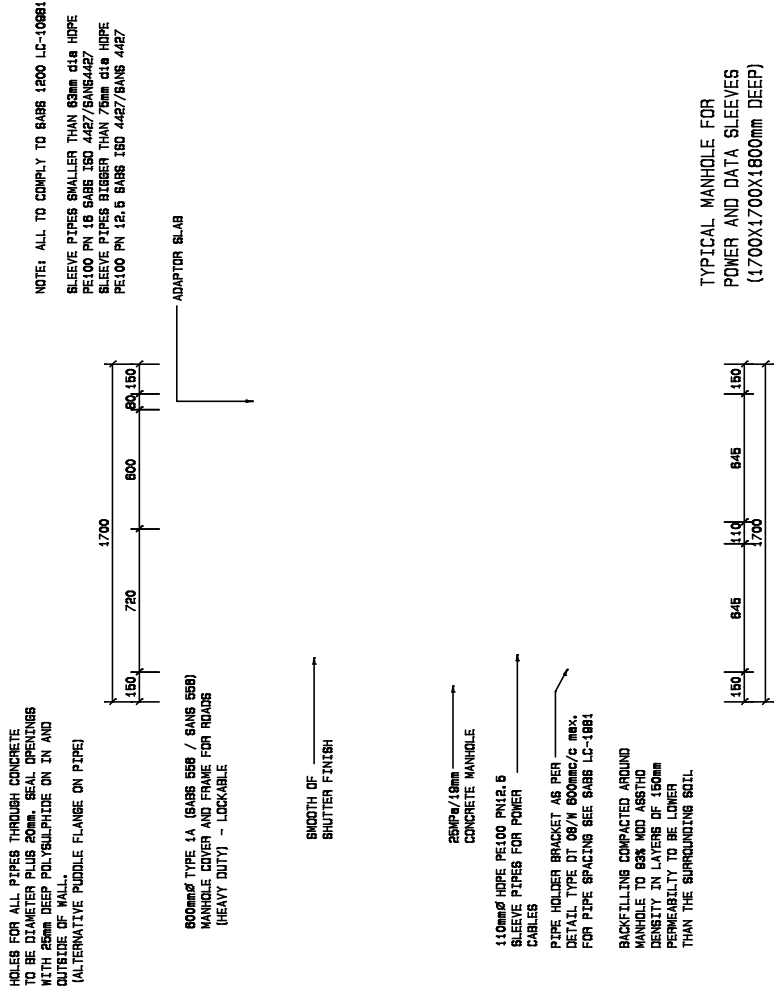
departmental
DIAGRAMMATIC CIVIL
ENGINEERING DETAILS
FOR DOLOMITIC SOILS

title
TYPICAL DUCT DETAIL FOR
CABLES SLEEVES UNDER
WALKWAYS (DIAGRAMATIC)

scale
1 : 20

date
22/06/2006

drawing number / type number
TYPE NO DT 03/C



- ALL MATERIALS TO BE HDPE
PE-100 AS PER SABS ISO 4427
/ SANS 4427
HOOP STIFFNESS OF MANHOLE
SHAFT TO BE 8 kN/m^2

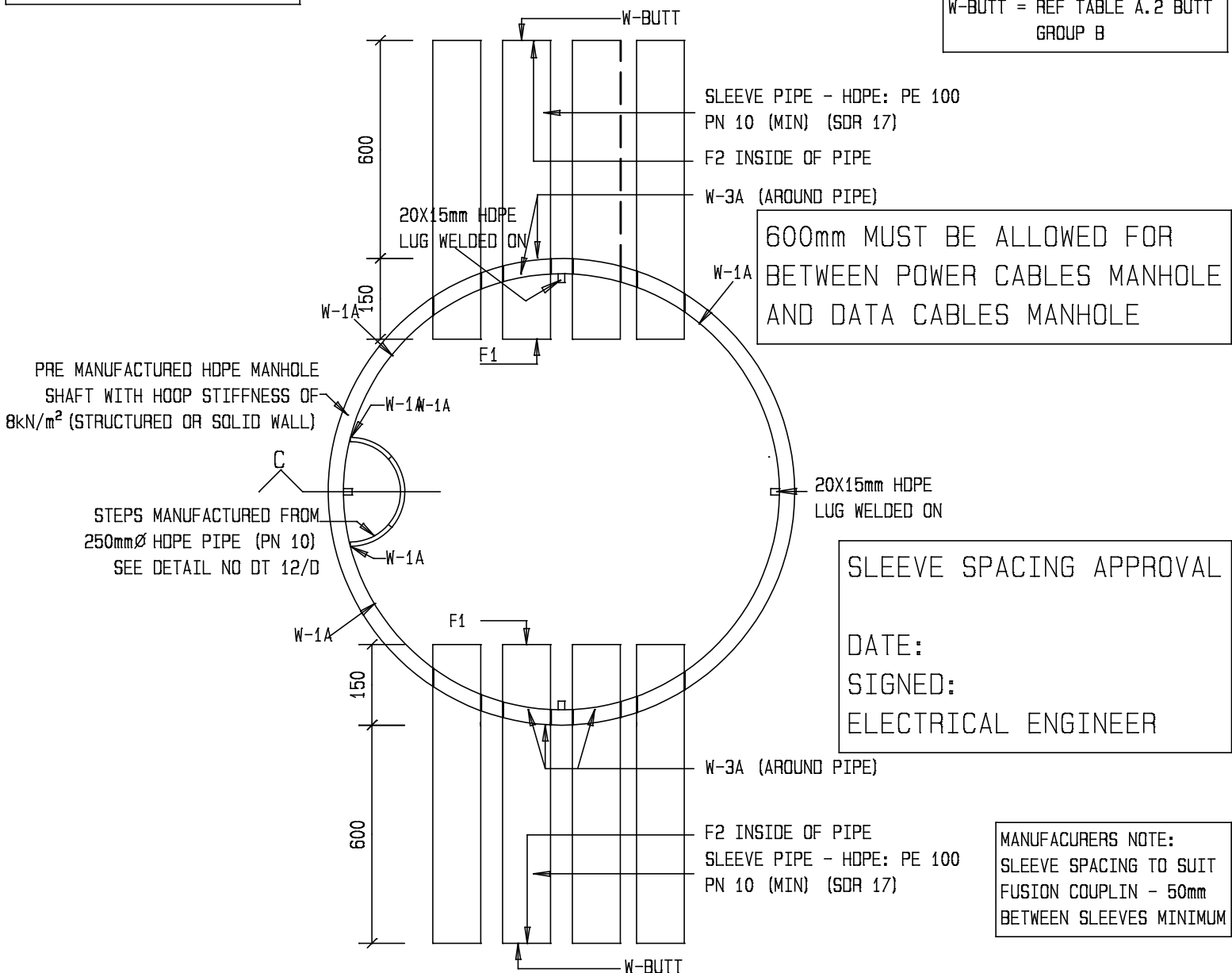
MANUFACTURING STANDARDS:

SABS 0268-1	/	SANS 10268-1
SABS 0269	/	SANS 10269
SABS 0270	/	SANS 10270
SABS 1269	/	SANS 1269
SABS 1655	/	SANS 1655
SABS 1671	/	SANS 1671-1

- BUTT WELDING OF PIPES TO COMPLY
TO SABS 0268-1:1999.
SANS 10268-1
- HOT GAS WELDING TO COMPLY
TO SABS 0268-3:1999.
SANS 10268-3
- HOT GAS EXTRUSION WELDING TO
COMPLY TO SABS 0268-4:1999.
SANS 10268-4

F1- FINISH PIPE WITH SMOOTH ROUNDED EDGE.
F2- REMOVE INTERNAL WELDING BEAD.

SEE SABS 0270 / SANS 10270
PAR 5 AS WELL AS ANNEX A.
W-1A = REF TABLE A.1 FILLET
GROUP A FIG 1A.
W-2A = REF TABLE A.1 FILLET
GROUP A FIG 2A.
W-3A = REF TABLE A.1 FILLET
GROUP A FIG 3A.
W-3B = REF TABLE A.1 BUTT
GROUP B FIG 3B.
W-BUTT = REF TABLE A.2 BUTT
GROUP B



1000mmØ HDPE MANHOLE FOR
DATA OR POWER SLEEVES
SCALE 1:15

SECTION A: SEE DT 10/D
SECTION B: SEE DT 11/D
SECTION C: SEE DT 12/D



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title
TYPICAL WELDING
DETAILS FOR
HDPE CABLE MANHOLE:
PLAN

scale
1 : 15

date
22/06/2006

drawing number / type number
TYPE NO DT 06/C

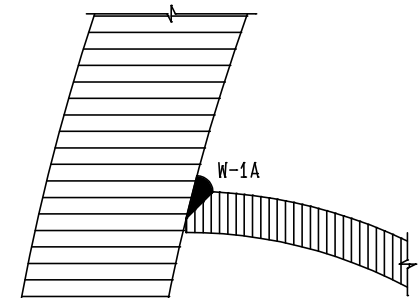
GENERAL NOTE:
 - ALL MATERIALS TO BE HDPE
 PE-100 AS PER SABS ISO 4427
 / SANS4427
 HOOP STIFFNESS OF MANHOLE
 SHAFT TO BE 8kN/m²

OTHER RELEVANT
 MANUFACTURING STANDARDS:
 SABS 0268-1 / SANS 10268-1
 SABS 0269 / SANS 10269
 SABS 0270 / SANS 10270
 SABS 1269 / SANS 1269
 SABS 1655 / SANS 1655
 SABS 1671 / SANS 1671-1

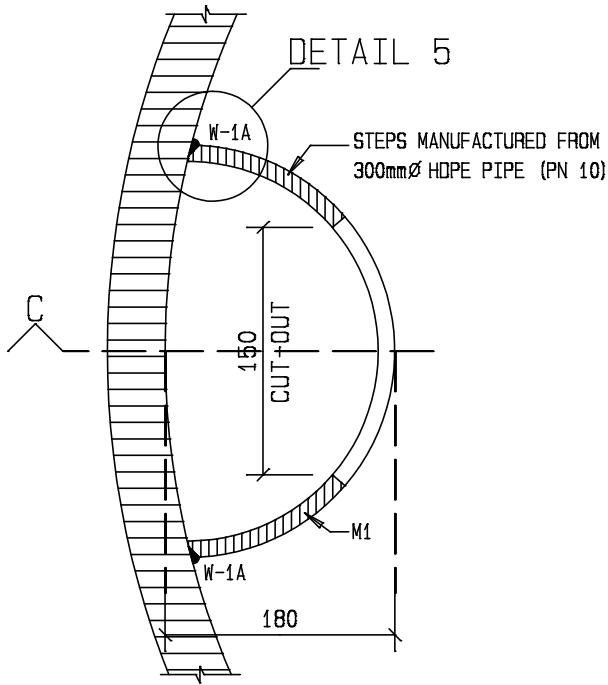
GENERAL WELDING SPECIFICATION:
 - BUTT WELDING OF PIPES TO COMPLY
 TO SABS 0268-1:1999.
 SANS 10268-1
 - HOT GAS WELDING TO COMPLY
 TO SABS 0268-3:1999.
 SANS 10268-3
 - HOT GAS EXTRUSION WELDING TO
 COMPLY TO SABS 0268-4:1999.
 SANS 10268-4

GENERAL FINISHING NOTE:
 F1- FINISH PIPE WITH SMOOTH ROUNDED EDGE.
 F2- REMOVE INTERNAL WELDING BEAD.

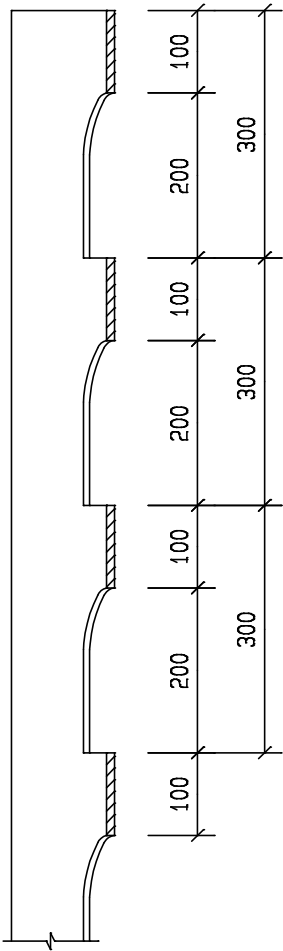
WELDING NOTATION FOR JOINTS
 SEE SABS 0270 / SANS 10270
 PAR 5 AS WELL AS ANNEX A.
 W-1A = REF TABLE A.1 FILLET
 GROUP A FIG 1A.
 W-2A = REF TABLE A.1 FILLET
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 W-3A = REF TABLE A.1 FILLET
 GROUP A FIG 3A.
 W-3B = REF TABLE A.1 BUTT
 GROUP B FIG 3B.
 W-BUTT = REF TABLE A.2 BUTT
 GROUP B



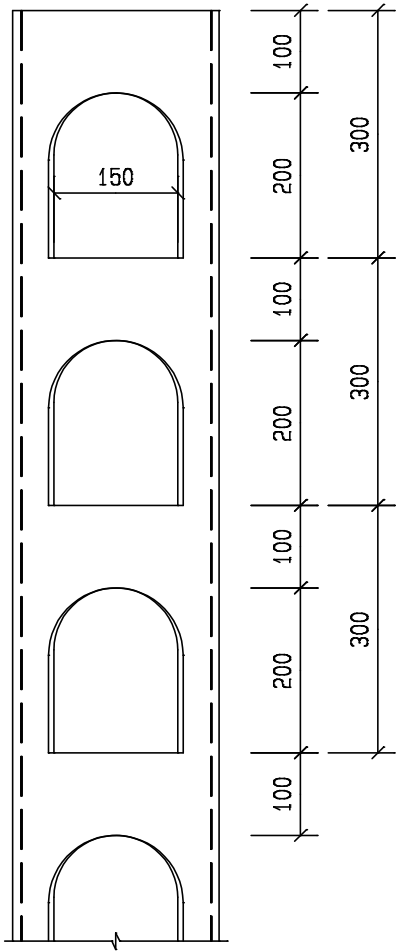
DETAIL 5
 SCALE 1:2



HDPE STEPS IN MANHOLE
 PLAN
 SCALE 1:5



SECTION C
 SCALE 1:10



ELEVATION OF STEPS
 SCALE 1:10

GENERAL NOTE:
- ALL MATERIALS TO BE HDPE
PE-100 AS PER SABS ISO 4427
/ SANS 4427
HOOP STIFFNESS OF MANHOLE
SHAFT TO BE 8kN/m²

OTHER RELEVANT
MANUFACTURING STANDARDS:
SABS 0268-1 / SANS 10268-1
SABS 0269 / SANS 10269
SABS 0270 / SANS 10270
SABS 1269 / SANS 1269
SABS 1655 / SANS 1655
SABS 1671 / SANS 1671-1

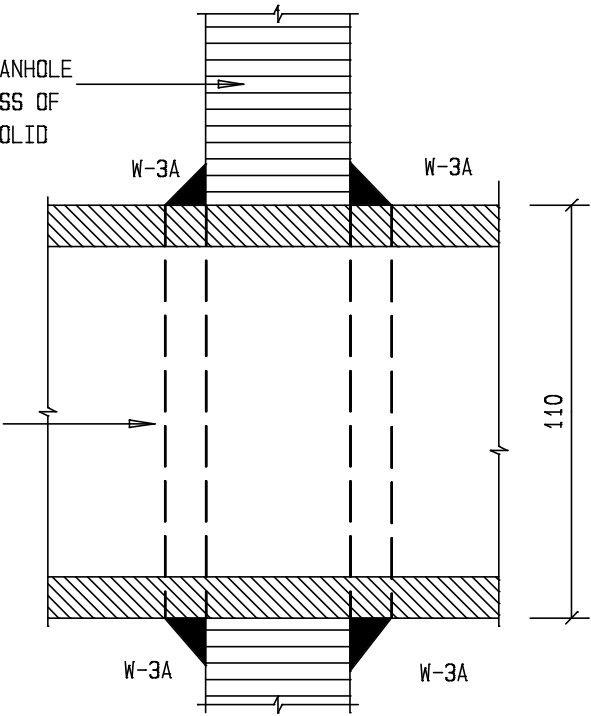
GENERAL WELDING SPECIFICATION:
- BUTT WELDING OF PIPES TO COMPLY
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SANS 10268-1
- HOT GAS WELDING TO COMPLY
TO SABS 0268-3:1999.
SANS 10268-3
- HOT GAS EXTRUSION WELDING TO
COMPLY TO SABS 0268-4:1999.
SANS 10268-4

GENERAL FINISHING NOTE:
F1- FINISH PIPE WITH SMOOTH ROUNDED EDGE.
F2- REMOVE INTERNAL WELDING BEAD.

WELDING NOTATION FOR JOINTS
SEE SABS 0270 / SANS 10270
PAR 5 AS WELL AS ANNEX A.
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GROUP A FIG 1A.
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W-3A = REF TABLE A.1 FILLET
GROUP A FIG 3A.
W-3B = REF TABLE A.1 BUTT
GROUP B FIG 3B.
W-BUTT = REF TABLE A.2 BUTT
GROUP B

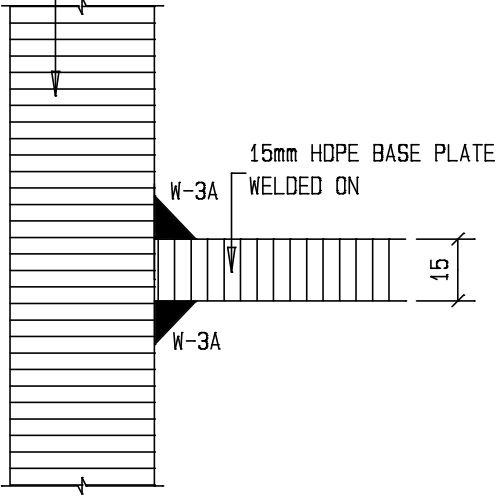
PRE MANUFACTURED HDPE MANHOLE
SHAFT WITH HOOP STIFFNESS OF
8KN/m² (STRUCTURED OR SOLID
WALL)

110mmØ HDPE PE100 PN10
SLEEVE PIPE FOR CABLES
TO BE LAID AT 160mm C/C
MINIMUM



DETAIL 1
SCALE 1:2

PRE MANUFACTURED HDPE MANHOLE
SHAFT WITH HOOP STIFFNESS OF
8KN/m² (STRUCTURED OR SOLID
WALL)



DETAIL 2
SCALE 1:2