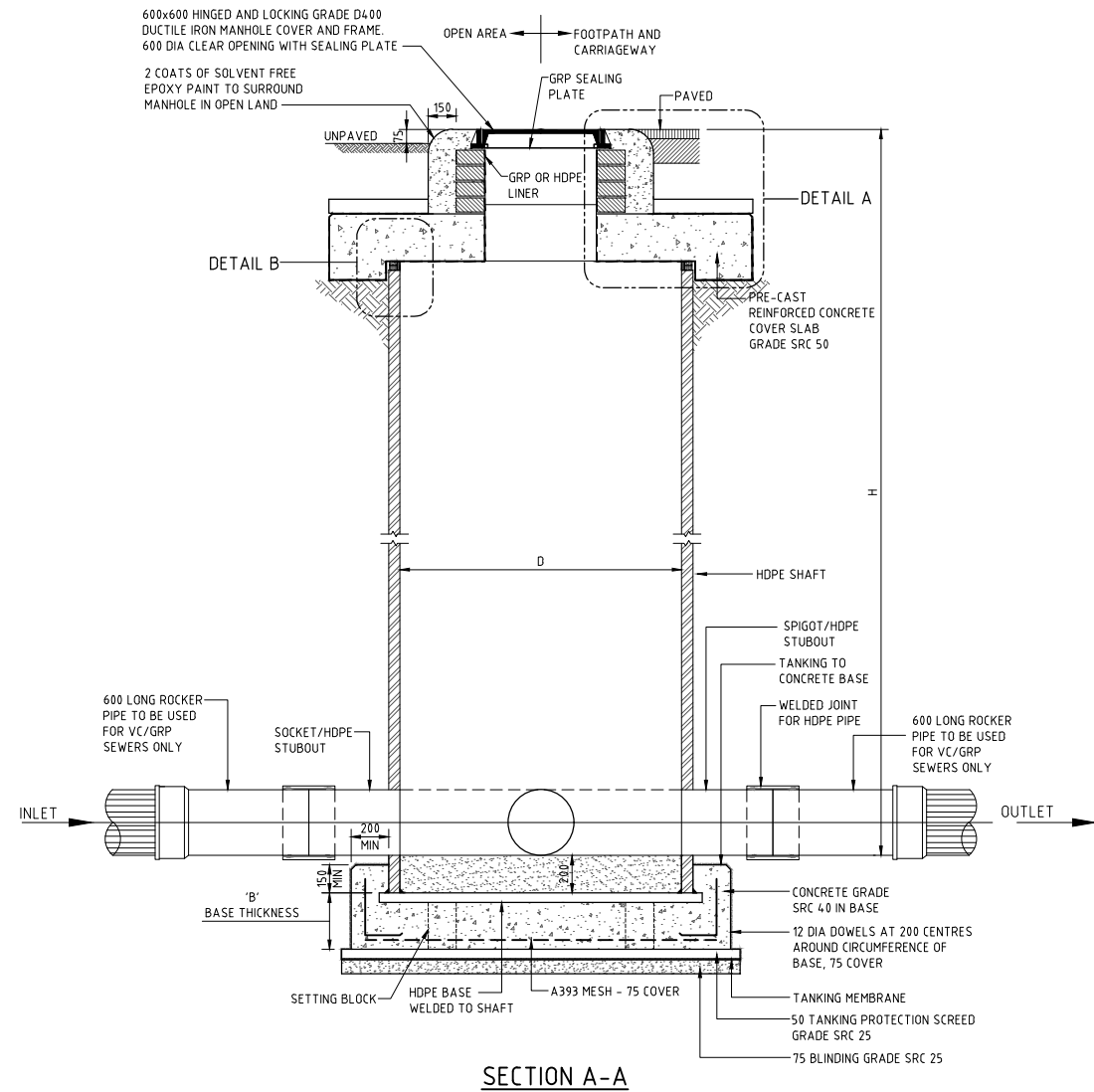
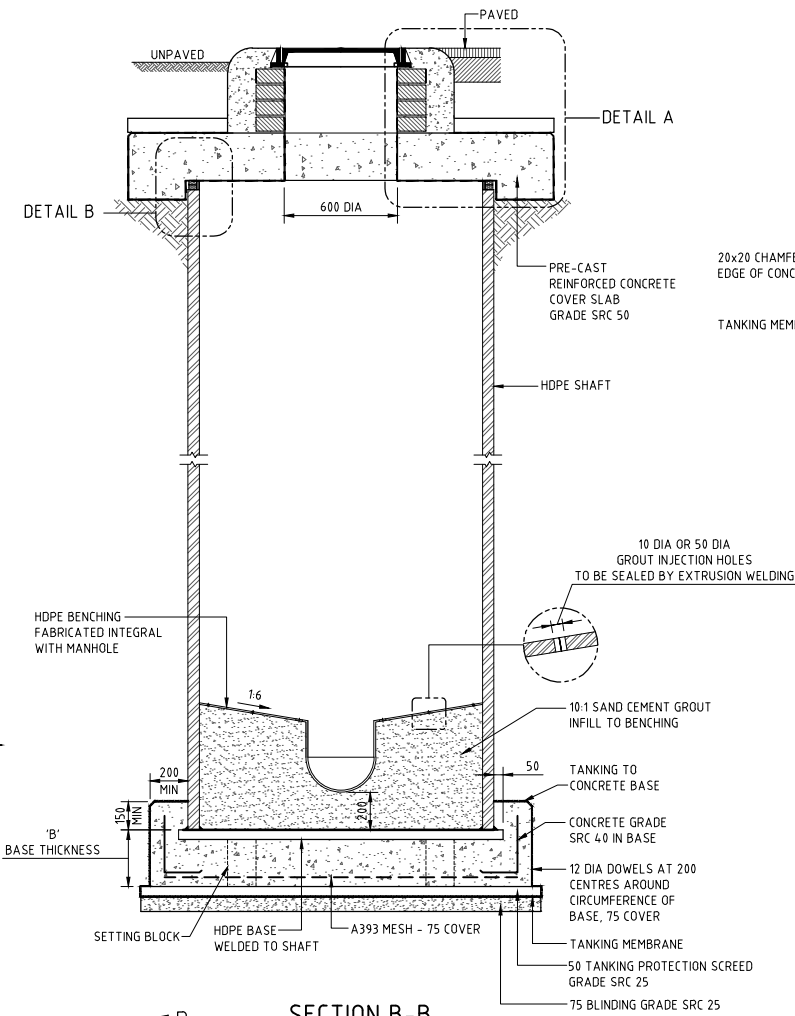
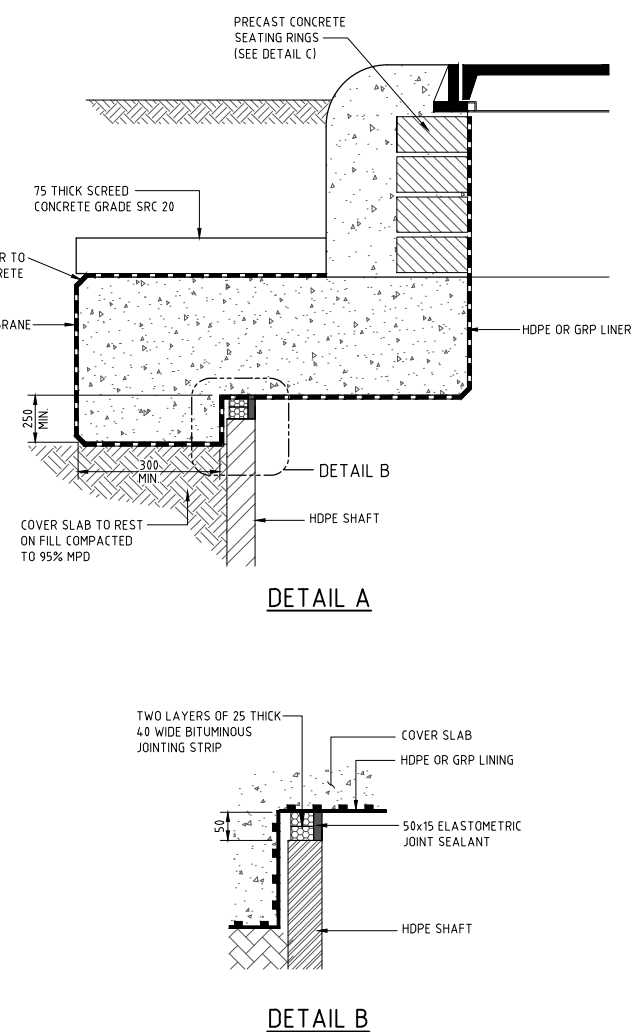




SECTION A-A

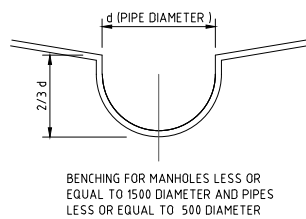


SECTION B-B

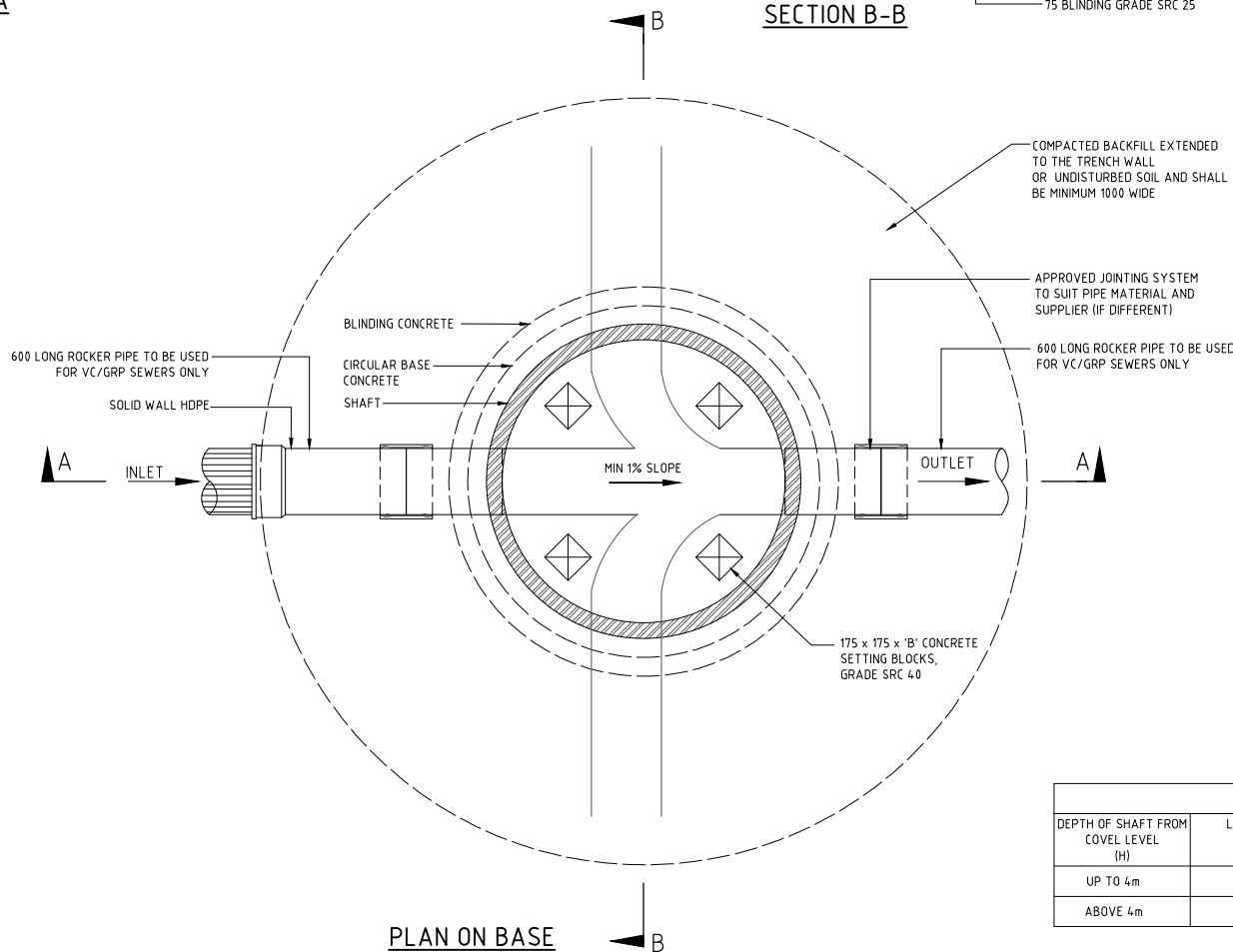


DETAIL A

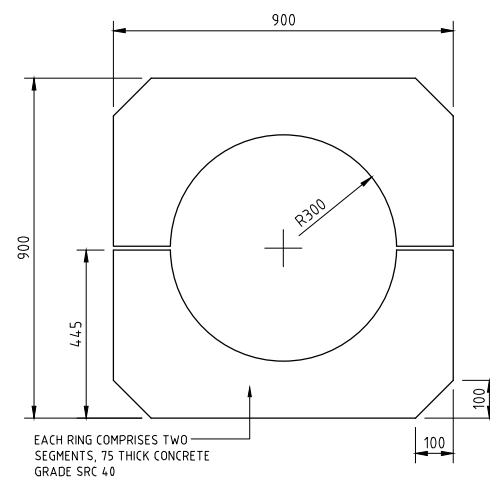
DETAIL B



HDPE MANHOLE BENCHING AND CHANNEL DETAILS



PLAN ON BASE



SEATING RING DETAILS
DETAIL C

RECOMMENDED DIMENSIONS FOR HDPE RIDER SEWER MANHOLE				
DEPTH OF SHAFT FROM COVEL LEVEL (H)	LARGEST DIA OF PIPE CONNECTED TO MH (d)	MIN. INTERNAL DIAMETER (D)	MIN. BASE SLAB THICKNESS (B)	MIN. COVER SLAB THICKNESS (T)
UP TO 4m	300mm	1000mm	300mm	250mm
ABOVE 4m	ADOPT STANDARD MANHOLE DETAILS			

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
- ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH CURRENT Q.C.S. UNLESS OTHERWISE AGREED WITH THE ENGINEER.
- HDPE MANHOLE SHOULD NOT BE PERMITTED WHERE THERE IS A RISK OF GROUND WATER TABLE HIGHER THAN THE INVERT LEVEL OF HDPE MANHOLES AND IN WADIS.
- HDPE MANHOLE SHALL NOT BE PERMITTED IN CARRIAGEWAYS.
- HDPE MANHOLE SHALL BE PERMITTED UP TO THE MAXIMUM DEPTH TO INVERT OF 4.0m.
- HDPE MANHOLES ARE TO BE STRAIGHT SHAFT, NO REDUCTION CONES SHALL BE PERMITTED.
- HDPE BASE PLATE TO BE USED IN ALL HDPE MANHOLE INSTALLATIONS AND TO BE EXTENDED 50mm OUTSIDE MANHOLE WALL.
- THE CONTRACTOR TO SUBMIT SHOP DRAWING AND STRUCTURAL DESIGN CALCULATION FROM THE HDPE MANUFACTURER USING INTERNATIONALLY PROVEN DESIGN SOFTWARE FOR EACH CATEGORY OF MANHOLE DULY CONSIDERING SITE CONDITION SUCH AS GROUND WATER TABLE, NATURE OF SOIL, DEAD AND LIVE LOAD ETC., AND THE SAME TO BE APPROVED BY THE ENGINEERING CONSULTANT.
- THE STRUCTURAL HDPE MANHOLE SHAFT MUST BE DESIGNED TO RESIST RADIAL EARTH PRESSURE, GROUNDWATER PRESSURE, SHEAR FORCES DUE TO DOWN DRAG, LIVE LOAD SUCH AS TRAFFIC LOAD WITH THE WEIGHT OF H-20 LOADS AND DEAD LOAD WEIGHT.
- HDPE STRUCTURAL MANHOLE DESIGN CALCULATION TO CONSIDER CONCRETE TOP SLAB SITTING DIRECTLY ON TOP OF THE MANHOLE SHAFT.
- BACKFILL TO BE EXTENDED AT LEAST 1M FROM THE PERIMETER OF THE MANHOLE FOR THE FULL HEIGHT OF THE MANHOLE AND EXTENDING LATERALLY TO UNDISTURBED IN SITU SOIL.
- LEAK TEST FOR EACH MANHOLE SHOULD BE WITNESSED BY THE CONTRACTOR AND CERTIFIED BY THE CONSULTANT AT FACTORY AS WELL AS PRIOR TO INSTALLATION AT SITE, IN ADDITION TO REGULAR MANHOLE INSPECTIONS.
- THE HDPE MANHOLE MANUFACTURER SHOULD COORDINATE WITH THE CONTRACTOR BY PROVIDING TECHNICAL SUPPORT DURING MANHOLE INSTALLATION AND GIVE A TEN YEAR WARRANTY FOR THE MANHOLES SUPPLIED INCLUDING REPAIRING / REPLACEMENT OF DEFECTIVE MANHOLES AT FREE OF COST.
- THE PROTECTION TO ALL OUTER SURFACES OF CONCRETE IN CONTACT WITH EARTH SHALL BE APPLIED IN ACCORDANCE WITH THE SPECIFICATION AND TO THE APPROVAL OF THE ENGINEER.
- DROPS UP TO 0.6m SHOULD BE AVOIDED BY ADJUSTING THE SEWER GRADIENTS.
- RAMP CONNECTIONS SHALL BE USED WHEREVER THE CHANGE OF INVERT ELEVATION THROUGH THE MANHOLE IS LESS THAN 1.0m BUT GREATER THAN 0.6m.
- DROP MANHOLES SHALL BE CONSTRUCTED WHEREVER THE CHANGE OF INVERT ELEVATIONS THROUGH THE MANHOLE IS GREATER THAN 1.0m.
- THERE SHALL BE AT LEAST ONE AND NOT MORE THAN THREE PRECAST RECTANGULAR SEATING RINGS FOR EACH ACCESS SHAFT.
- FOR DEPTHS TO INVERT MORE THAN 3.5m CONCRETE MANHOLE CAN BE USED SUBJECT TO PWA APPROVALS.
- FOR HDPE WALL THICKNESS, THE CONTRACTOR SHALL SUBMIT MANUFACTURERS' CALCULATIONS AND VERIFY THE STRUCTURAL REQUIREMENTS.
- SPECIAL COUPLER FOR HDPE MANHOLE SEWER CONNECTION SHALL BE DESIGNED BY THE HDPE MANHOLE MANUFACTURER AND SHALL BE SUBJECT TO ENGINEER'S APPROVAL.
- VERTICAL DROP IN DROP MANHOLE SHALL BE OUTSIDE THE MANHOLE, SURROUNDED BY MIN 150mm THICK CONCRETE, RESTING ON EXTENSION TO RCC BASE SLAB OF MANHOLES.

3	APR 19	ISSUED FOR USE	
2	01 MAR 19	REVALIDATED ISSUE	
1	23NOV15	ISSUED FOR USE	
0	26JUL15	ISSUED FOR USE	

Rev.	Date	Revision Details	Appd.
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Public Works Authority

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PA
PROJECTS AFFAIRS
QCS Section:
Section 8 - Drainage Works
Part 4 - Pipeline Installation

Drawing Title:

**PROPERTY CONNECTION
HDPE RIDER SEWER
MANHOLE DETAILS**

Approved:

Date: APRIL 2019

Drawing Number: SD 8-4-224

Scale: N.T.S.

Revision:

1 OF 1

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