

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT Q.C.S. UNLESS OTHERWISE AGREED WITH TH
- ENGINEER. WHERE THERE IS A DISCREPANCY BETWEEN THE REQUIREMENTS IN THE SPECIFICATION AND THOSE SHOWN ON THIS DRAWING TH SPECIFICATION SHALL TAKE PRECEDENCE.
- VARIATION TO STANDARD DETAILS ARE PERMISSIBLE TO MEET SITE SPECIFIC REQUIREMENTS SUBJECT TO ENGINEERS APPROVAL.
- DRAWING No. SD 8-4-106 FOR STANDARD NOTES AND DETAILS
- ALL JOINTS BETWEEN SECTIONS OF GRP LINERS SHALL BE LAMINATED OVER WITH 200mm WIDE RESIN RICH GLASS.
- ALL JOINTS BETWEEN PIPES, FIXTURES AND GRP LINERS ARE SEALED.
- ALL JOINTS BETWEEN PIPES AND CONCRETE SECTIONS ARE WATERTIGHT.
- ALL INCOMING PIPES ARE LAID SOFFIT TO SOFFIT WITH THE OUTGOING PIPE UNLESS A RAMP/BACKDROP IS CONSTRUCTED OF AS SHOWN ON THE PLAN.
- ROCKER PIPE IS 600mm IN LENGTH OR 1.5xD WHICHEVER IS GREATER. MAXIMUM LENGTH OF ROCKER TO BE 1/2 OF MANUFACTURER'S NOMINAL PIPE LENGTH OR AS AGREED ON SITI
- GRP PIPES AND FABRICATIONS CAST INTO CONCRETE SHALL BE GRIT COATED.
- . DRAWING No. SD 8-4-103 FOR TANKING DETAILS.
- : DUCTILE IRON MANHOLE COVERS SHALL BE BADGED 'FOUL WATER' IN ENGLISH AND ARABIC.
- WATER' IN ENGLISH AND ARABIC.

 I, MANHQLES IN CARRIAGEWAY TO BE BACKFILLED TO THE UNDERSIDE OF THE SUB BASE, FROM THE EXCAVATED SURFACE WITH SMPA FLOWABLE FILL. AT TRENCH OPENINGS, ROUGH SHUTTERING SHALL BE PROVIDED TO GIVE A MIMIMUM THICKNESS OF 300 AROUND THE MANHOLE WHERE FLOWABLE FILLS USED FOR BACKFILL, TANKING MEMBRANE TO WALL SIS REQUIRED ONLY TO 300 ABOVE THE HIGHEST PIPE GROWN LEVEL POLYTHENE SHEETING SHALL BE USED TO PREVENT THE FLOWABLE FILLE LETTERING THE GRAWUL AR BED AND SURROUND. TANKING MEMBRANE IS NOT REQUIRED FOR PRC MANHOLES.
- . DRG No. SD 6-1-201 TO SD 6-1-205 FOR CONSTRUCTION IN EXISTING PAVEMENT.
- THERE SHALL BE A MINIMUM OF 1 AND MAXIMUM OF 4 PRECAST CONCRETE SEATING RINGS INSTALLED SUBJECT TO THE APPROVAL OF THE ENGINEER.
- . REFER TO DRG No. SD 8-4-204 FOR MANHOLE DIMENSION SCHEDULE AND COVER SIZE.
- 3. SEE SD 8-4-104 FOR PIPE BEDDING DETAILS AT PIPE ENTRANCE

NOTES APPLICABLE TO BACKDROP MANHOLES:

- WHERE THERE IS A DIFFERENCE IN LEVEL BETWEEN THE INVER' LEVEL OF INCOMING AND OUTGOING SEWERS THE FOLLOWING RULES APPLY:
- WHERE THE DIFFERENCE IN LEVEL IS LESS THAN 600 THE PIR
 CONNECTION MAY BE DIRECT THROUGH THE MANHOLE OR
 GRADIENT ADJUSTED TO SUIT.
- b. WHERE THE DIFFERENCE IN LEVEL IS GREATER THAN 600 AND LESS THAN 1200 A RAMP BACKDROP SHALL BE CONSTRUCTED.
- WHERE THE DIFFERENCE IN LEVEL IS 1200 AND LESS THAN 8000 A VERTICAL BACKDROP SHALL BE CONSTRUCTED.
- WHERE INCOMING AND OUTGOING PIPE DIA. DIFFER, THEY SHALL BE SET SOFFIT LEVEL AND A TAPPERED CHANNEL SHALL BE PROVIDED.
- THE MINIMUM DIAMETER FOR A BACKDROP IS 200. WHERE INCOMING PIPE CONNECTING TO BACKDROP IS LESS THAN THE SPECIFIED HIMIMUM DIA. OF THE BACKDROP, A LEVEL INVERT TAPER SHALL BE PROVIDED IN THE GRP FABRICATION. IF INCOMING PIPE IS GREATER THAN OR EQUAL TO MIN. DIA. THE BACKDROP SHALL BE OF THE SAME DIAMETER AS THE INCOMIN PIPE.
- VORTEX DROP TO BE USED WHEN DIFFERENCE IN PIPE INVERT LEVELS IS GREATER THAN 8.0m AND FLOW IS GREATER THAN 30 VISEC OR VELOCITY IS GREATER THAN 12 m/SEC. TYPE OF VORTEX DROP AND DESIGN TO BE APPROVED BY THE ENGINEER.

FINISHED ROAD LEVEL

5	OCT 19	ISSUED FOR USE	
4	APR 19	ISSUED FOR USE	
3	01 MAR 19	UPDATED ISSUE	
2	21JAN16	ISSUED FOR USE	
1	23NOV15	ISSUED FOR USE	
0	15SEP13	ISSUED FOR USE	
Rev.	Date	Revision Details	Appd.

هيئــة الأشغـال العامــة Public Works Authority

P.O.Box: 22188 Tel.: 00974 44950000 Fax: 00974 44950999



www.ashghal.gov.q

Section 8 - Drainage Works

Part 4 - Pipeline Installation

FOUL SEWER MANHOLE DETAILS **GRP PIPES**

Approved:	Sheet No: 1 OF 1
Date: OCT 2019	Scale: 1:25 ON A1
Drawing Number:	Revision:

SD 8-4-203

5