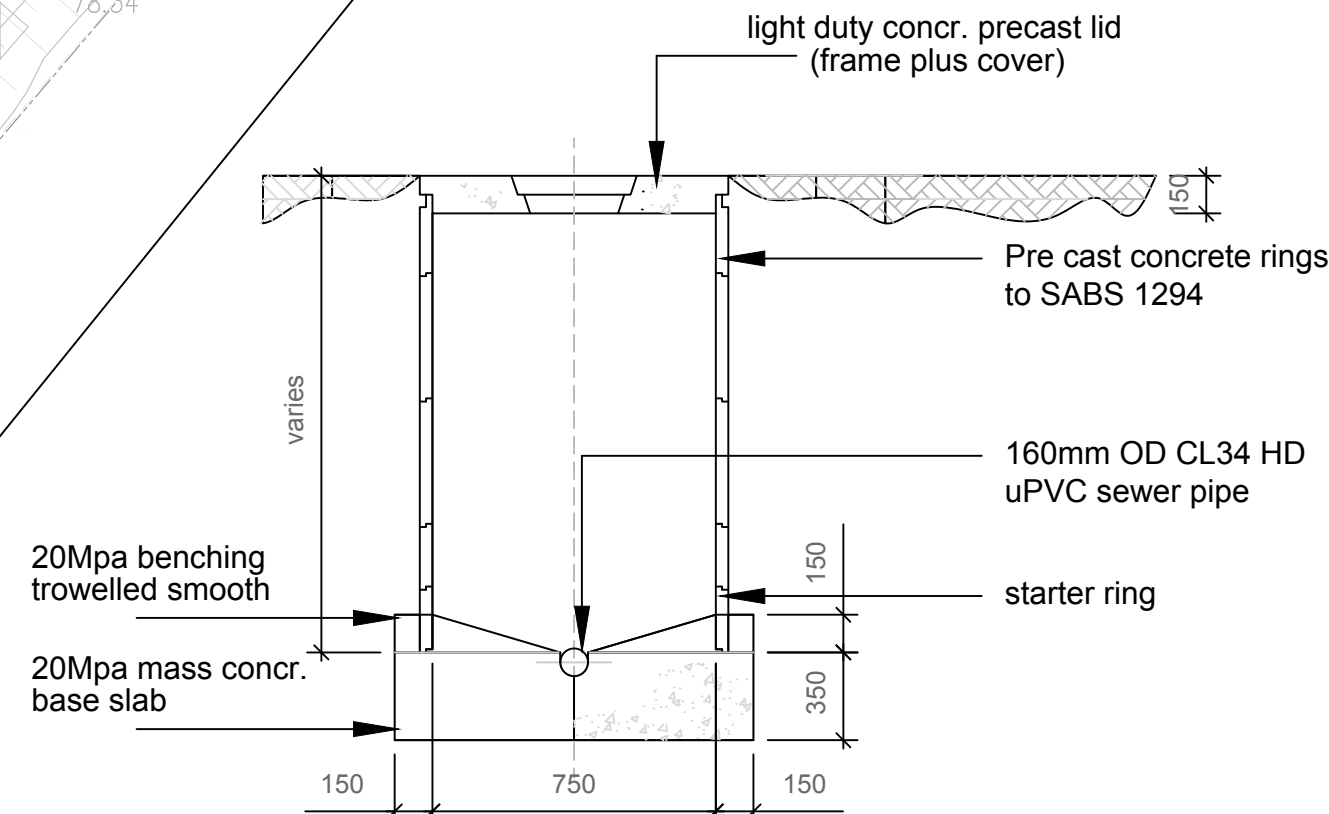


SEWER AND GRAY WATER LAYOUT PLAN  
Scale 1: 250



SEWER MANHOLE DETAILS  
scale: 1:20

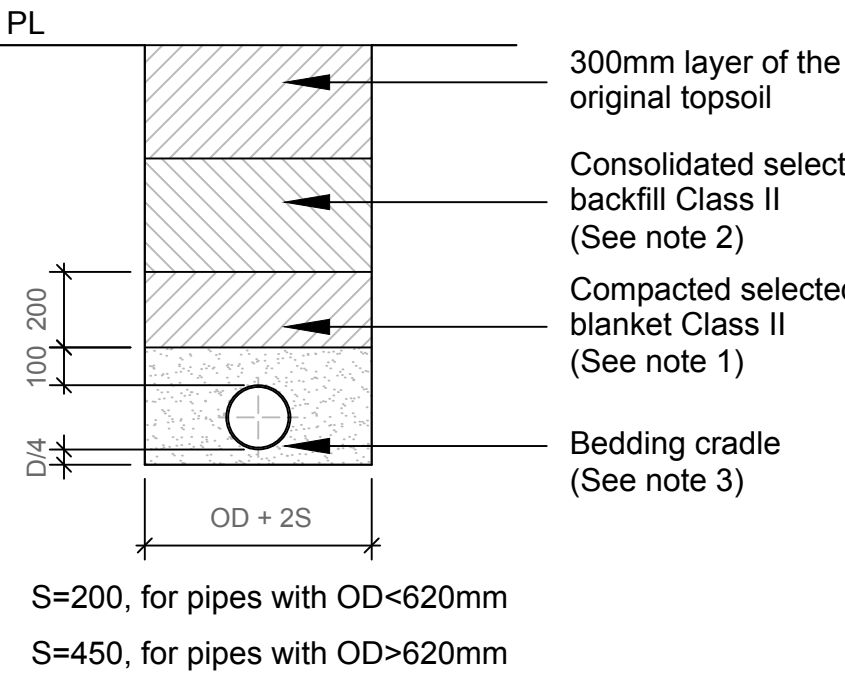
NOTES AND SPECIFICATION GENERAL:

- 1.ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS REQUIREMENTS.
  - 2.ALL DIMENSIONS ARE IN MILLIMETERS (UNLESS OTHERWISE SPECIFIED)
  - 3.DO NOT SCALE FROM THESE DRAWINGS.
  4. ALL DIMENSIONS MUST BE CHED AND APPROVED ON SITE.
  - 5.FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.
- NOTE:  
BACKFILLING OF TRENCH EXCAVATIONS

- 1.SELECTED BACKFILL CLASS I: IMPLIES APPROVED SELECTED MATERIAL FROM TRENCH EXCAVATION FREE FROM STONES AND WITH OPTIMUM MOISTURE CONTENT.
- 2.SELECTED BACKFILL CLASS II: IMPLIES SELECTED BACKFILL FROM TRENCH EXCAVATION WHICH SHALL NOT CONTAIN ANY STONES LARGER THAN 150mm DIAMETER.
- 3.CLASS B BEDDING CRADLE SHALL CONSIST OF AN APPROVED SELECTED GRAVEL MATERIAL WITH PI NOT EXCEEDING 6, FREE FROM STONES EXCEEDING 20mm , ORGANIC MATTER AND LUMPS OF CLAY.
- 4.CLASS A BEDDING / ENCASING CONCRETE BETWEEN JOINTS SHALL BE CARRIED OUT IN ONE CONTINUOUS OPERATIONUSING CLASS 20/19 CONCRETE.
- 5.FLEXIBLE JOINTS MUST BE PROVIDED AT EACH PIPE JOINT IN A CLASS "A" CONCRETE BEDDING / ENCASING WITH 12mm THICK SOFTBOARD PLACED VERTICALLY FOR THE ENTIRE CONCRETE AREA.
- 6.APPROVED SELECTED GRAVEL MATERIAL WITH A PI NOT EXCEEDING 6, FREE FROM STONES EXCEEDING 20mm, ORGANIC MATTER AND LUMPS OF CLAY.

NOTE:

- 1.PIPES
- 1.1.SEWER PIPES SHALL BE PVC-U HEAVY DUTY CLASS 34 PIPES LAID ON FLEXIBLE PIPE BEDDING IN ACCORDANCE WITH SANS 1200LB
- 1.2.ALL SEWER PIPES ARE 160mm DIAMETER UNLESS NOTED OTHERWISE. GREY WATER PIPE SHALL BE 110mm DIAMETER.
- 2.MANHOLE, RODDING EYES, ETC.
- 2.1..SETTING OUT OF SEWER MANHOLES AND RODDING EYES TO BE CHECKED BY ENGINEER PRIOR TO EXCAVATION.
- 2.2.MANHOLE COVERS IN AREAS SUBJECT TO VEHICULAR LOADS SHALL BE CAST IRON TYPE 2A IN ACCORDANCE WITH THE REQUIREMENTS OF SANS 558
- 2.3.MANHOLE COVERS IN ALL OTHERS AREAS SHALL BE LIGTH DUTY PRECAST CONCRETE.
- 3.SETTING OUT
- 3.1.SETTING OUT OF CONNECTIONS TO THE BUILDING TO BE CHECKED ON SITE AGAINST ARCHITECTURAL DRAWING.



CLASS B BEDDING  
FOR FLEXIBLE PIPE  
scale: 1:20

LEGEND

- Existing sewer MH
- Proposed sewer MH
- Existing sewer line
- Proposed sewer line
- Proposed greywater MH
- Proposed greywater line
- Existing sewer MH
- Proposed greywater gully

REVISIONS

	DATE	DESCRIPTION
A	09/10/2019	DESIGN APPROVAL

CLIENT:

 **education**  
Department:  
Education  
PROVINCE OF KWAZULU-NATAL

Head Office, 247 Burger Street, Pietermaritzburg, 3200  
Telephone Number: (033) 392 1203  
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IMPLEMENTING AGENT:

 **DBSA**  
Building Africa's Prosperity

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PROFESSIONAL SERVICE PROVIDER:

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Tel: (031) 003 3137, Fax: (031) 003 3101, FZE, 086 671 3882  
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PROJECT NAME INFORMATION  
ALTERATIONS AND ADDITIONS TO  
KHANDISA PRIMARY SCHOOL IN DLANGEZWE

SECTION / BLOCK  
**GENERAL SITE LAYOUT PLAN**

TITLE  
**WET SERVICES DRAWING**

DRAWING DESCRIPTION  
**SEWER AND GREYWATER LAYOUT  
PLAN AND DETAILS**

SCALE	AS SHOWN		
DESIGNED SAM	DATE AUG 2019	P/Eng No. 20160552	SIGN:
DRAWN SAM	DATE AUG 2019	P/Eng No. 20160552	SIGN:
APPROVED RJK	DATE AUG 2019	DRAWN: 20060009	SIGN:
DRAWING NUMBER:	P1911/70-901	REVISION <b>A</b>	