



 GCS Geotechnical Consulting Services		Test Pit Profile	Test Pit No. TP2
41 Riverside Dr, Benoni		Tel: 011 (0)26 867 1141 email: enquiries@gcs.co.za	
Job Description: Roadcut Section Pipeline Bridge 3 (cont'd)			
Job No: 13247-02/C/SEW/312			
Client: Thabamela Abaya Pty Ltd			
Location: 2100 Ø GRP PIPE Class 6			
Coast System: 1347.85 IL			
From: To: Thickness (mm)			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80 4.00 4.20 4.40 4.60 4.80 5.00 5.20 5.40 5.60 5.80 6.00 6.20 6.40 6.60 6.80 7.00 7.20 7.40 7.60 7.80 8.00 8.20 8.40 8.60 8.80 9.00 9.20 9.40 9.60 9.80 10.00			
0.00 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00 3.20 3.40 3.60 3.80			


	<h1>Test Pit Profile</h1>		Test Pit No.:
			<h2>TP3</h2>
45 Prospekt N. Kloofa		Tel: +27 (0)21 581 1981 email: info@gcs.co.za	
Co-ordinates: X: Y: Elevation: Co-Ord System:	Job Description: Test Pit Profile Bridge 3 (cont'd) Job No: Client: Machine: Logged by: Date:	13247-02/C/SEW/312 Johannesburg Water 45 Prospekt N. Kloofa 21-10-2009	
From:	To:	Thickness (mm):	Description:
0.00	0.05	0.56	Moist, grey backfill to right below, VERY LOOSE TO MEDIUM DENSE, silty, clay fine SAND with southern clays (100-200mm of light grey brown, highly mudbound, very soft with granitic grains and debris of bricks, steel and fine stones. FILL.
Notes: (1) No groundwater surface encountered (2) No visible surface collapse (3) No surface cracks (shallow collapse) present			



	<h1>Test Pit Profile</h1>		Draw PTH No. <h2>TP3(B)</h2>
49 Westons St, Roodepoort	Tel: +27 (0)82 281 1361 email: info@engeneers.co.za		
Co-ordinates: Job Description: Job No: Client: Location: Coast System:	Location: Sewer Pipeline Bridge 3 (cont'd) (cont'd) Job No: 13247-02/C/SEW/312 Client: Johannesburg Water Machine: AFR 302 Exc Logged by: JWC Date: 21 Mar 10		
From: To: Thickness (mm) Description			
0.00	0.95	1.10	Moist, grey blackish to light brown, VERY LOOSE TO MEDIUM DENSE, silty fine SAND with scattered, rounded (100-200mm) light grey brown, highly polished, smooth to fine grey gritty grains and surface of debris, shell and fine roots, FILLLED.
Notes: 1 No groundwater seepage encountered 2 No visible natural or man-made features 3 South Coast (Western Cape) geology			

Notes:			
1) No groundwater seepage encountered 2) No visible oil/water collection 3) Backfill on highly weathered, very soft rock/grains (granite)			
		Test Pit Profile <div>TP6</div>	
63 Westons St, Pretoria		Tel: +27 (0)82 887 4101 • email: rns@nrgm.co.za	
Co-ordinates:		Job Description: Overhaul Sewer Pipeline Section 3 (north bank) Job No: 13247-02/C/SEW/312 Client: Transnet Africa Pty Ltd	
Elevation:		Machine: JCB 3CX 18	
Coast System:		Loc: 2100 Ø GRP PIPE Class 6 Date: 24-Mar-18	
From:	To:	Thickness:	Description
0.00	2.10	2.10	light brown to yellow brown with black, VERY LOOSE TO HEAVY LOOSE, silty, clay like SANDY to matrix of light grey brown to orange, boulders (200-600mm sizes), moderately weathered, IRREGULAR SOURED rock/grains and rubble of
Notes:			

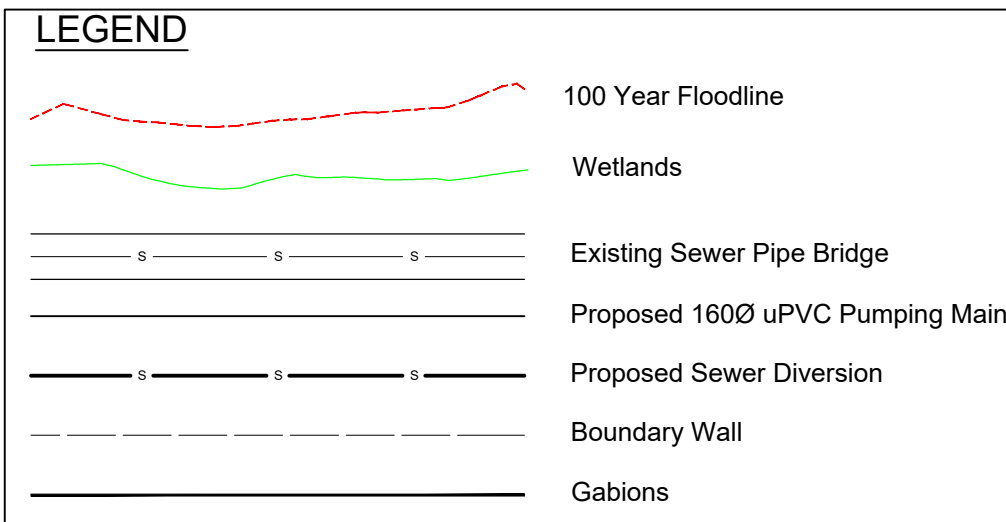
GJ Steyn & Co, Pretoria		Tel: 021 924 88 71 Email: email@gjsteyn.co.za	
Co-ordinates:	Job Description: Overhaul Sewer Pipeline Bridge 3 (cont'd) Job No: 13247-02/C/SEW/312 Client: Johannesburg Water Location: 2100 Ø GRP PIPE Class 6 Coast System: 1347.85 IL		
From:	To:	Logged by: jh Date: 23-Mar-10	
Richmond Description 0.00 0.05 1.00		Holes, grey backfill to light brown, VERY LOOSE TO MEDIUM DENSE, moist, soft (5-6) with no isolated clumps; (100-200mm) of light grey brown, tightly bonded, very soft to granular pebbles and refuse of debris, sand and fine roots, FILL.	
Notes: 1) Onsite water sample encountered at 1.0m 2) Measured water level at 0.00m(0.00m) and 0.54m(10.00m) 3) No visible water level 4) South Road (Randburg College grounds)			
		Test Pit No.	

		<h1>Test Pit Profile</h1>	<h1>TP4</h1>
<p>Job Name: TP4</p>		<p>Job No: 13247-02/C/SEW/312</p>	
<p>Client: Johannesburg Water</p>		<p>Location: 2100 Ø GRP PIPE Class 6</p>	
<p>Co-ordinates:</p>		<p>Job Description: Test Pit Profile Bridge 3 (cont'd)</p>	
<p>Elevation:</p>		<p>Job No: 13247-02/C/SEW/312</p>	
<p>Drawn by:</p>		<p>Client: Johannesburg Water</p>	
<p>Checked by:</p>		<p>Location: 2100 Ø GRP PIPE Class 6</p>	
<p>From:</p>		<p>Coast System: 1347.85 IL</p>	
<p>To:</p>		<p>Job Description:</p>	
<p>0.00 0.00 0.40</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.40 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.20 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose, dense, LOOSE, moist, cohesionless to coarse grained, silty fine SAND, bluish-grey.</p>	
<p>0.00 0.00 0.20</p>		<p>Very loose,</p>	

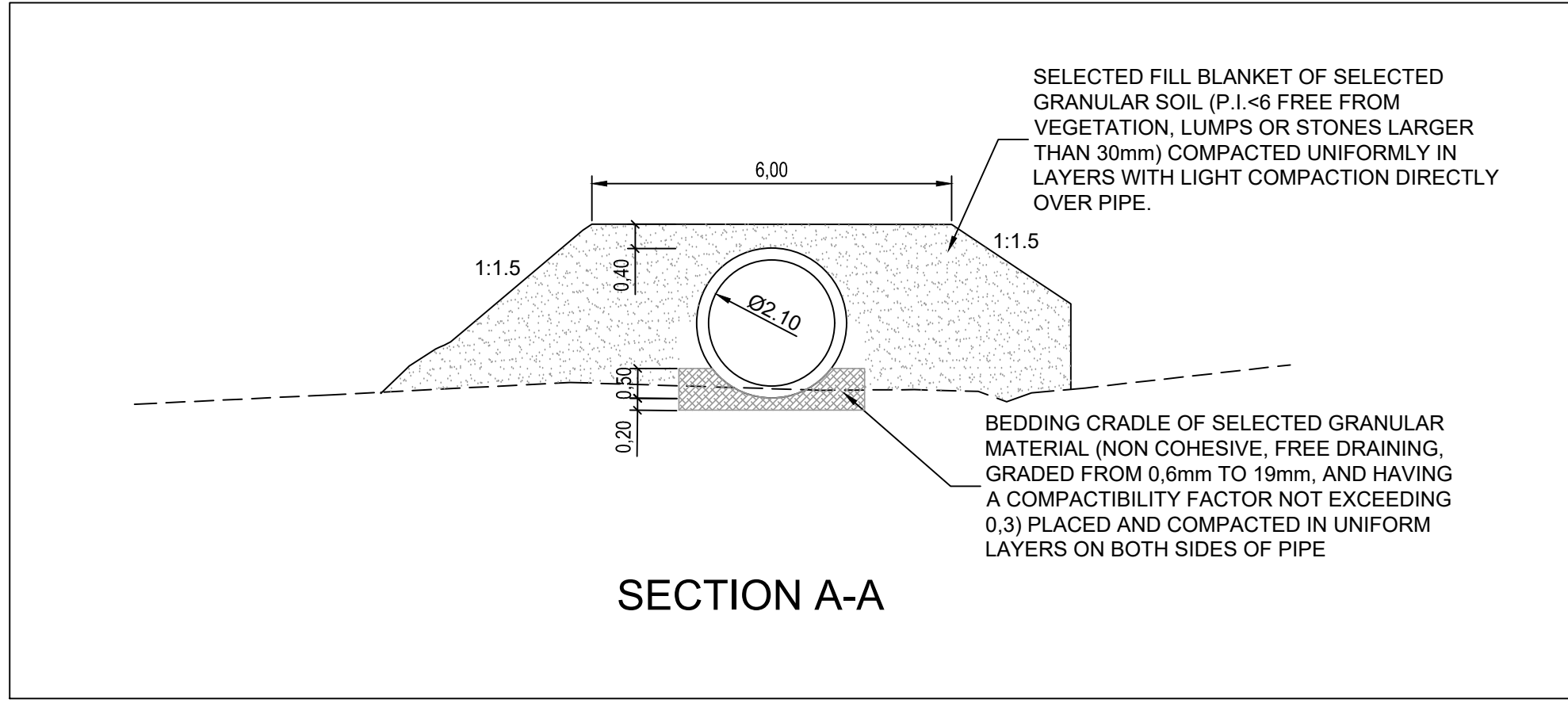
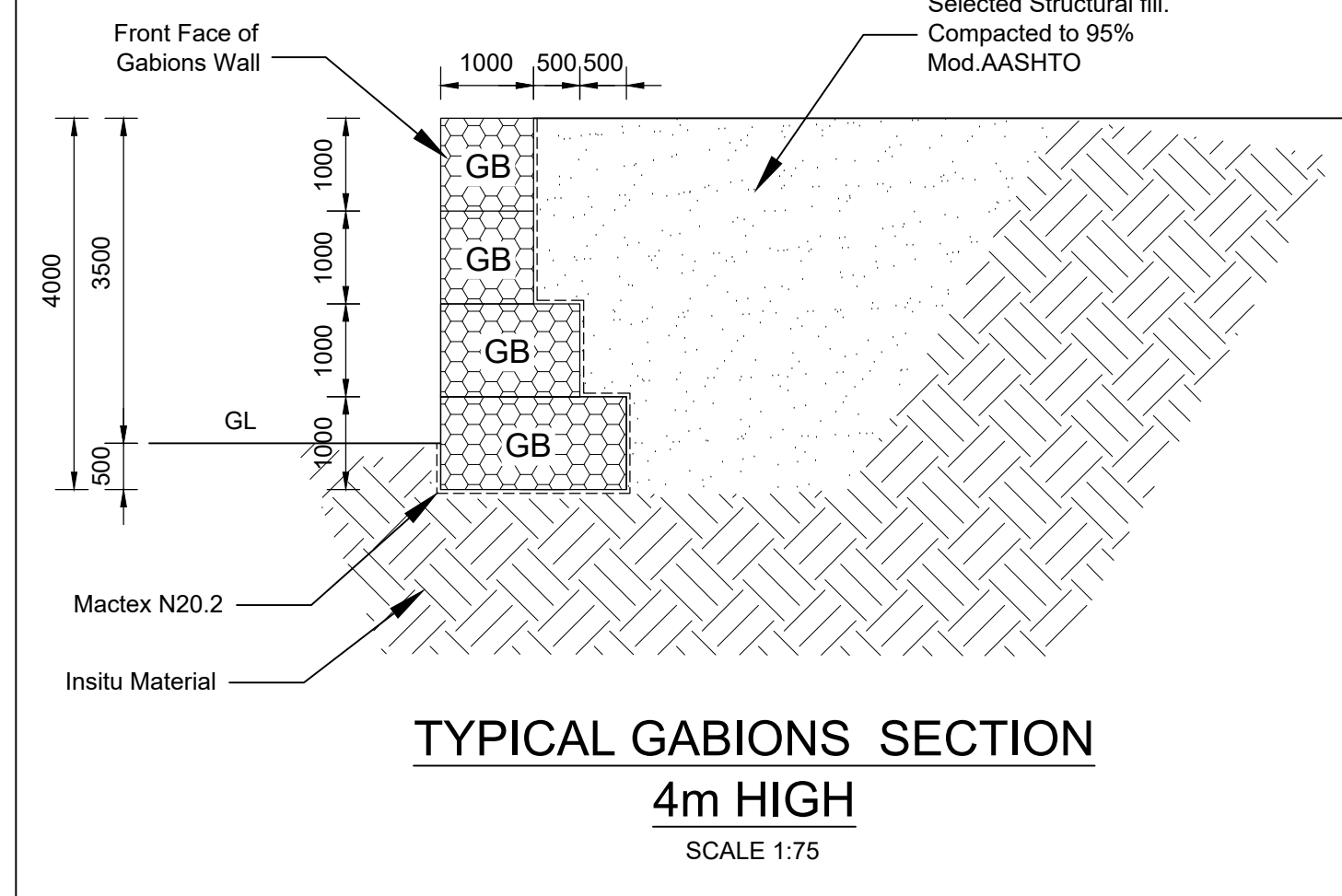
 GCS Geotechnical Consulting Services		Test Pit Profile	Date: 25.03.16 TP5
Job Details: In Progress		Tel: +27 (0) 21 450 1000 Email: enquiries@gcs.co.za	
Co-ordinates: Easting: 350000 Northing: 6100000 Zone System: 35Q		Job Description: Conduct Survey Pipeline Bridge 3 (cont'd) Job No: 13247-02/C/SEW/312 Client: Johannesburg Water Location: 2100 Ø GRP PIPE Class 6 Coast System: 1347.85 IL Logbook Date: 20.03.16	
From:	To:	Depth (m):	Description:
0.00	1.00	1.00	Shallow, light green to dark green, LOAM TO MEDIANEGRINE.
1.00	2.00	2.00	Dark green, slightly weathered, dark green to black, silty sand (200 - 500µm), fine, medium and coarse, FAC.
2.00	3.00	3.00	Dark green, light green, slightly weathered, coarse, HARD ROCK, granite and basalt.
Notes: 1) No groundwater seepage encountered. 2) Maximum vertical clearance: 0.15m 3) North Arrow: Geographical North 4) Scale: 1:100 (Horizontal) 1:10 (Vertical)			

				TP7
Job Reference No: R10000		Job Reference No: R10000 Job Reference No: R10000		
Co-ordinate: 1 Job Description: Ductbank Tunneling Pipeline Bridge 3 (cont'd) 2 Job No: 13247-02/C/SEW/312 3 Client: Johannesburg Water 4 Location: 2100 Ø GRP PIPE Class 6 5 Coast System: 1347.85 IL				
Coast System: 1347.85 IL				
From:	To:	Thickness:		
0.00	0.40	0.40	Hard, dense, LOOSE, red, silty fine SAND with fine iron and small stones and gravel, small, PAI.	
0.40	0.90	0.50	Hard, dense, loose, MEDIUM DENSE, grey, silty, fine SAND and gravel, silty, fine SAND, gravel, grey	
0.90	1.40	0.50	Hard, dense, loose, MEDIUM DENSE, grey, silty, fine SAND and gravel, silty, fine SAND, gravel, grey	
1.40	1.50	0.10	Hard, dense, loose, MEDIUM DENSE, grey, silty, fine SAND and gravel, silty, fine SAND, gravel, grey	
1.50	1.50	0.00	Grey orange and brown, little weathered, cement, VERY SOFT clay, dense, grey, orange	
Notes: 1. The material is described as encountered 2. The material is described as encountered 3. The material is described as encountered 4. The material is described as encountered 5. The material is described as encountered				

EXTENT OF EXPOSED PIPE SETTING OUT DATA			
NAME	Y	X	PIPE INVERT LEVEL
P1	99377.705	2875664.932	1355.788
P2	99391.526	2875513.961	1354.269



BENCHMARKS			
NAME	Y	X	LEVEL
BM7	99441.763	2874963.009	1396.260
BM8	99428.186	2875820.938	1370.970
BM9	99356.308	2876073.935	1389.690



<p>INFRASTRUCTURE CONSULTING</p> <p>Tel: 0861thembas (843622) email: info@thembas-africa.com</p> <p>CLIENT JOHANNESBURG WATER 65 NTEMI PILISO STREET NEWTOWN, 2001</p>	DESIGNED	G.C	17/05/2018
	DRAWN	G.C	17/05/2018
	CHECKED	B.B.D	31/05/2018
	APPROVED BY:	SIGNATURE	DATE
ECSA REG. No.	990087		
CHECKED BY:	B.B.D		
SIGNATURE			



TURBINE HALL
65 NTEMI PILISO STREET
NEWTOWN
2001
TEL: (011) 688-1400
FAX: (011) 688-1521

Joburg
DIEPSLOOT SEWAGE ACQUEDUCT
BRIDGE 3
SITE PLAN
SEWER PIPELINE BRIDGE

SURVEY INFORMATION		APPROVAL BY JW DEPOT		SCALE	AMENDMENTS	
PROJECT SURVEYOR:		CHECKED		1:500	REV:	DESCRIPTION
DATE:		APPROVED BY:			A	ISSUED FOR TENDER
		SIGNATURE	DATE			
CCTV INFORMATION		APPROVAL BY JW PLANNING				
CCTV COMPANY:		CHECKED				
DATE:		APPROVED BY:				
		SIGNATURE	DATE			

CONSULTANTS DWG NO			
13247-02/C/SEW/312-A			
DRAWING No.			
JW14455			A
PROJECT No.	DRAWING No.		REV.
A0	1		1
ORIGINAL PAGE SIZE			
FILE No.			

CONSULTANTS DWG NO			
13247-02/C/SEW/312-A			
DRAWING No.			
JW14455			A
PROJECT No.	DRAWING No.		REV.
A0	1		1
ORIGINAL PAGE SIZE			
FILE No.			