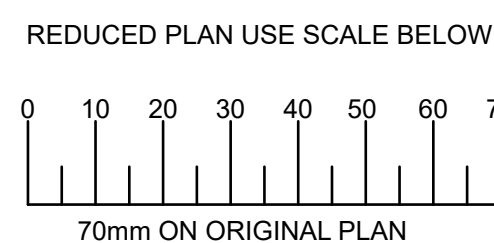


ENGINEERING UNIT
DEVELOPMENT ENGINEERING

PLAN DESCRIPTION	DWG. NO.	SHEET NO.
CONTINUED FROM		
CONTINUED ON		
CROSS SECTIONS		
TYPICAL CROSS SECTION		
SURVEY LAYOUT		



1. GENERAL NOTES

- 1.1 NO SCALING OFF IS PERMITTED ONLY WRITTEN DIMENSIONS MAY BE DEMAND CORRECT. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
- 1.2 ALL WORK TO COMPLY WITH THE LATEST EDITION OF THE SANS 1200 SPECIFICATIONS.
- 1.3 ALL CUT SLOPES TO BE SHAPED TO 1:1.5 AND FILL SLOPES TO 1:2 UNLESS OTHERWISE DIRECTED BY THE ENGINEER ON SITE.
- 1.4 FILL MATERIAL TO BE COMPACTED IN LAYERS OF MAX. 150mm TO 180mm. ASHTO STEPS TO BE FORMED PRIOR TO FILLING. HEIGHT OF STEPS TO BE APPROXIMATELY 200mm LISTS.
- 1.5 COMPACTION TESTING TO BE DONE AS FOLLOWS:
(a) 1 TEST PER LAYER FOR EACH 25m LENGTH OF FOOTPATH
- 1.6 BOLLARDS TO BE CONSTRUCTED ONLY WHEN INSTRUCTED BY THE ENGINEER.
- 1.7 WHERE THE COVER LEVELS OF THE EXISTING MANHOLES LOCATED IN THE ALIGNMENT OF NEW FOOTPATHS IS HIGHER THAN THE FINISHED DESIGN LEVEL OF THE FOOTPATH, MANHOLE RINGS ARE TO BE CUT SUCH THAT THE NEW MANHOLE COVER LEVEL IS CONSISTENT WITH THE LEVEL AND SLOPE OF THE FOOTPATH. EXISTING MANHOLE LIGHT DUTY COVERS AND FRAME ARE TO BE REPLACED WITH HEAVY DUTY COVER AND FRAME. EXPOSED REINFORCING MUST BE PAINTED WITH Sika TOP AMATEC 110 EC OR SIMILAR APPROVED.
- 1.8 THESE DESIGNS OR DRAWINGS ARE NOT TO BE SOLD AND ARE SUBJECT TO RECALL. REPRODUCTION OR COPYING RIGHTS ARE RESERVED SOLELY BY BV CONSULTING ENGINEERS UNDER COPYRIGHT LAW. THESE DRAWINGS HAVE BEEN ISSUED AND RECEIVED ON THE FOLLOWING CONDITIONS:
(a) THAT THEY ARE NOT USED IN ANY WAY AGAINST THE INTERESTS AND BENEFITS OF BV
(b) THAT THESE DRAWINGS AND ALL COPIES WILL BE RETURNED TO BV IMMEDIATELY ON DEMAND.
(c) THAT ALL INFORMATION DISCLOSED BY THESE DRAWINGS SHALL BE DEEMED TO BE CONFIDENTIAL.

2. CONCRETE

- 2.1 CONCRETE WORKS TO COMPLY WITH SANS 1200 SECTION G AND SANS 9100 PART 2.
- 2.2 THE FREQUENCY OF CONCRETE WORKS TESTING MUST BE DONE AS FOLLOWS:
(a) AT LEAST ONE SET (3 NO. CUBES) OF SAMPLES FOR EVERY 50m³ OF CONCRETE PLACED.
(b) AT LEAST ONE SET OF SAMPLES SHALL BE TAKEN FROM EACH DAY CASTING.
(c) TESTING MUST BE CARRIED OUT IN ACCORDANCE TO SANS METHOD 861 AND TESTED BY AN APPROVED LABORATORY. RESULTS TO BE SUBMITTED TO THE ENGINEER.
(d) ON THE BASIS OF IMPORTANCE, WHERE DIRECTED BY THE ENGINEER, A SET OF SAMPLES MAY BE REQUESTED.
(e) UNLESS OTHERWISE ADVISED, NO SAMPLE SHALL BE TAKEN OF ANY CONCRETE UNTIL AT LEAST 1m³ OF SUCH CONCRETE HAS BEEN MIXED AND DISCHARGED FOR THE FOOTPATHS.
- 2.3 CURING AND PROTECTION SHALL BE ACCORDING TO SANS 9100 8-1500, 5.8.8.
- 2.4 ALL CONCRETE TO BE PROPERLY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP AT LEAST 7 DAYS AFTER CASTING.
- 2.5 CONCRETE POURING WILL ONLY BE DONE UPON THE APPROVAL OF THE SHUTTERING AND FIXING OF THE REINFORCEMENT FOR THE FOOTPATHS/DRAINS.
- 2.6 MIN CONCRETE CURE STRENGTH AT 28 DAYS:
FOOTPATH 20 MPa
KERB BASE AND HANDING 15 MPa
STEP CONCRETE BASE 15 MPa
RETAINING WALL BASE 20 MPa

DESIGN CONSULTANT

BV Consulting Engineers KwaZulu-Natal PTY (Ltd)
Visit or contact us online at www.bvgroup.co.za

KZN Durban +27 31 256 8362 durb@bvkn.co.za

Approved: _____ Date: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____

Revision: _____ Date: _____ Description: _____