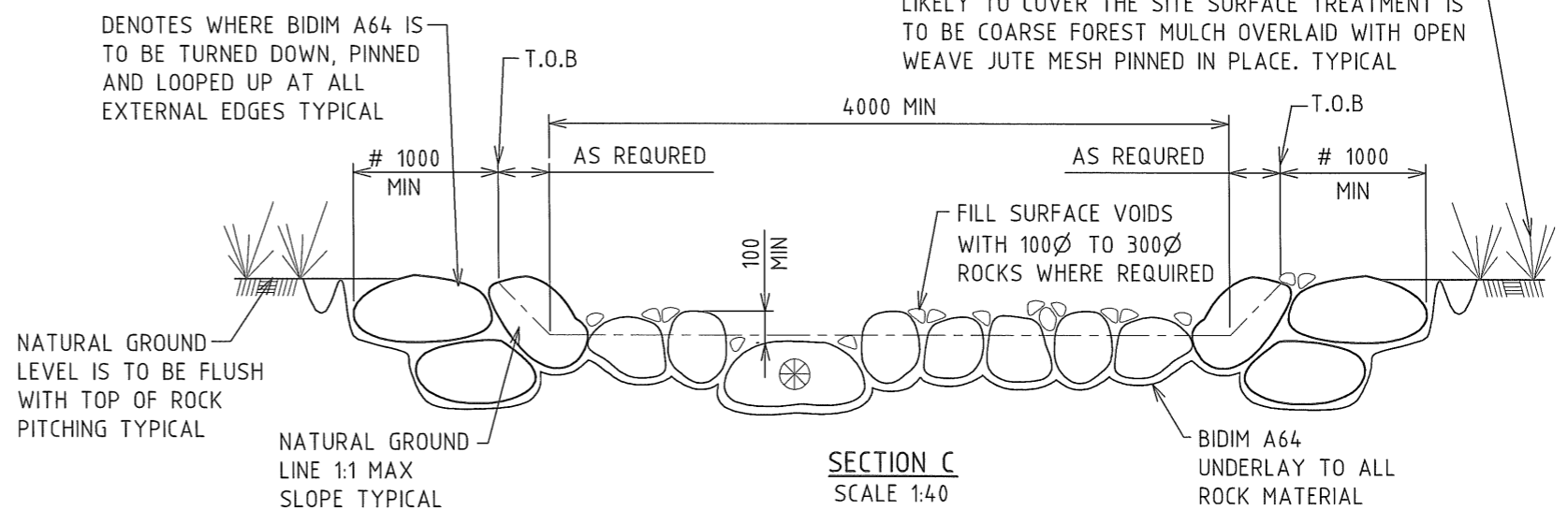
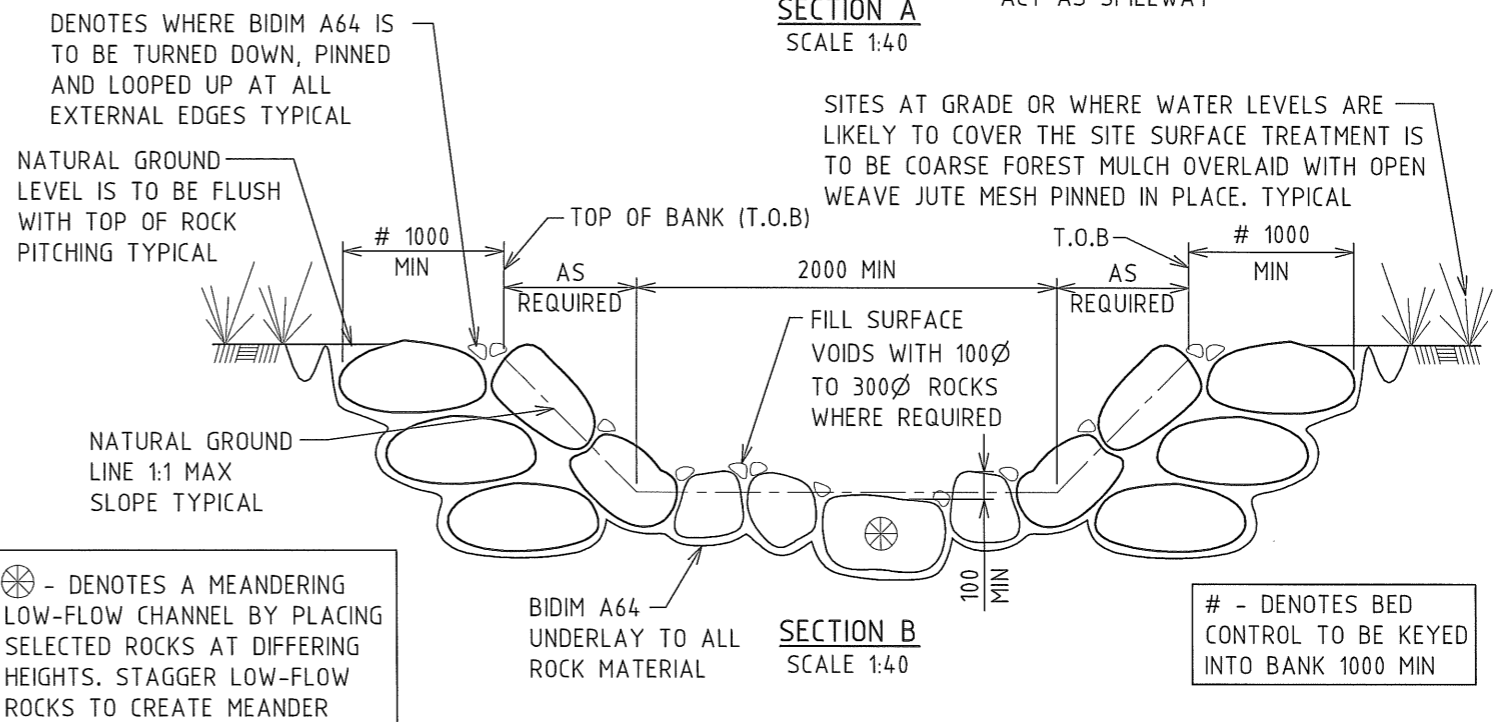
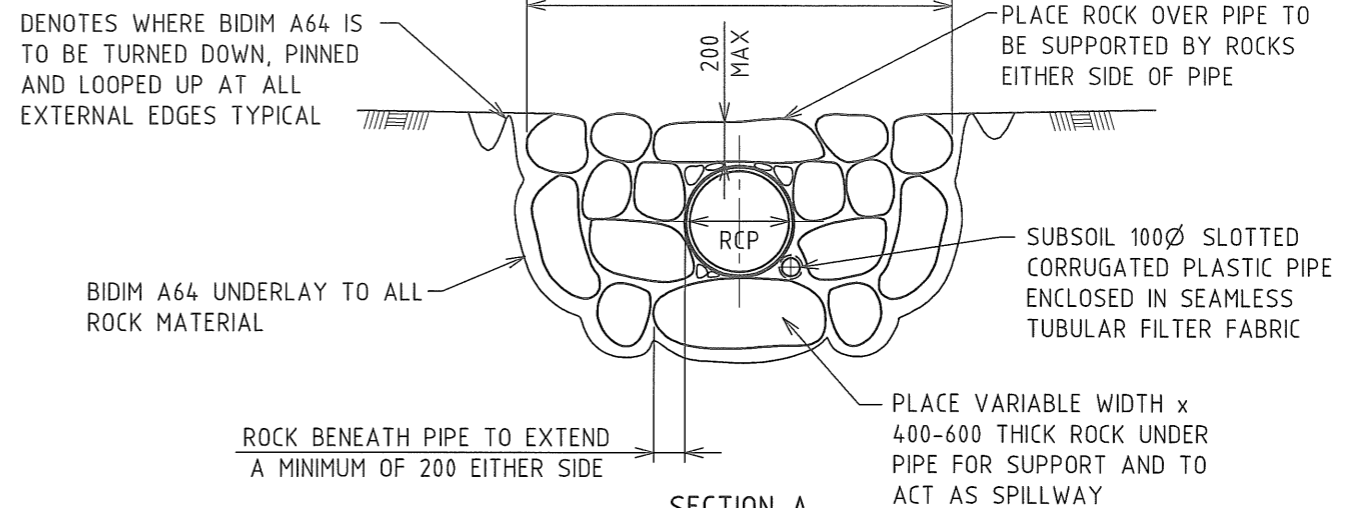
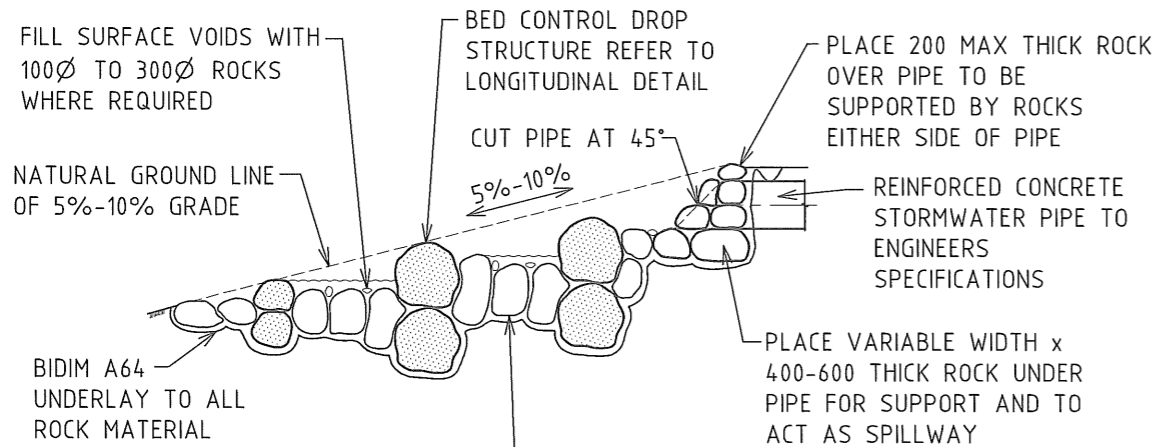


NOTE:  
FOUNDING MATERIAL  
TO ACHIEVE A MINIMUM  
ALLOWABLE BEARING  
CAPACITY OF 150KPa



ALL DIMENSIONS ARE  
IN MILLIMETRES UNLESS  
NOTED OTHERWISE

REFER TO DRAWING 2 OF 2 FOR ROCK NOTES AND TABLES

No.	AMENDMENT DETAILS	DATE	INITIALS
1	CONSTRUCTION	11.06.13	J.C.
0	PRELIMINARY - FOR REVIEW AND COMMENT ONLY	11.01.13	J.C.

SCALE	AS SHOWN
COORDINATE SYSTEM:	HEIGHT DATUM: AHD

LIVEABLE CITY  
INFRASTRUCTURE  
MANAGEMENT SERVICES

REVIEWED: J.C.

APPROVED:

SIGNED: *[Signature]*  
INFRASTRUCTURE MANAGEMENT SERVICES MANAGER  
DATE: 11/6/13

THE CITY OF NEWCASTLE

ROCK PITCHED HEADWALL AND  
ENERGY DISSIPATER OUTLET FOR  
NATURAL GRADE BETWEEN 5% AND 10%

NCC PLAN No.	A2305	SHEET No.	1 OF 2 SHEETS
AMENDMENT No.			

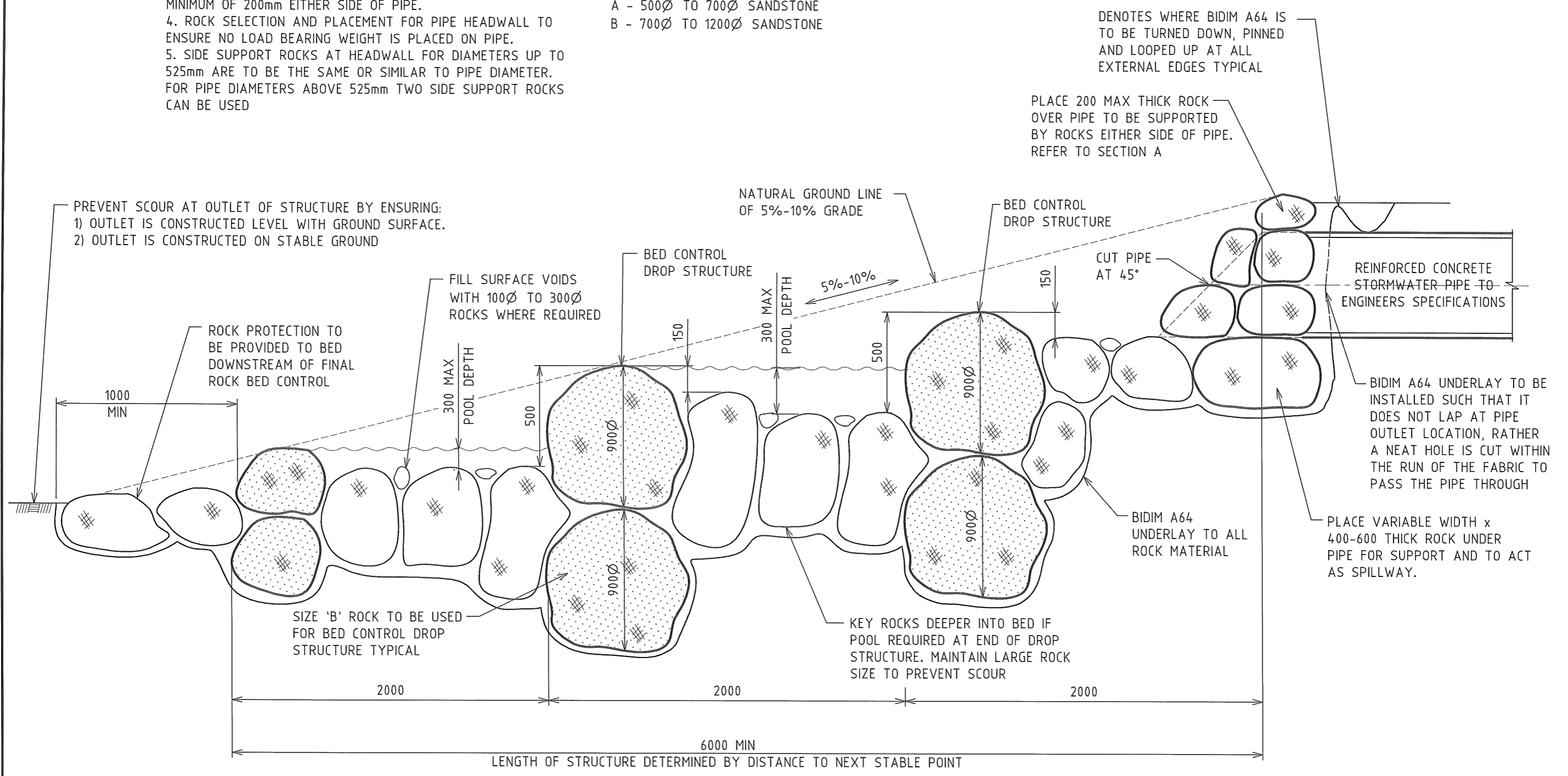
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

**ROCK CONSTRUCTION NOTES**

1. SIZE B ROCKS ARE TO BE USED FOR ALL CRITICAL POINTS IN STRUCTURE ie. BED CONTROLS AND STRUCTURE OUTLETS.
2. 100 TO 300mm ROCKS ARE TO BE HAND PACKED INTO VOIDS WITHIN ROCK STRUCTURE BETWEEN SIZE A AND B ROCKS.
3. ROCK PLACED BETWEEN OUTLET OF PIPE IS TO EXTEND A MINIMUM OF 200mm EITHER SIDE OF PIPE.
4. ROCK SELECTION AND PLACEMENT FOR PIPE HEADWALL TO ENSURE NO LOAD BEARING WEIGHT IS PLACED ON PIPE.
5. SIDE SUPPORT ROCKS AT HEADWALL FOR DIAMETERS UP TO 525mm ARE TO BE THE SAME OR SIMILAR TO PIPE DIAMETER. FOR PIPE DIAMETERS ABOVE 525mm TWO SIDE SUPPORT ROCKS CAN BE USED

ROCK SIZING		
PIPE Ø (mm)	0-5%	>5%
375 to 600	A	B
> 600	B	B

A - 500Ø TO 700Ø SANDSTONE  
 B - 700Ø TO 1200Ø SANDSTONE



**LONGITUDINAL DETAIL**  
 SCALE 1:25

No.	AMENDMENT DETAILS	DATE	INITIALS
1	CONSTRUCTION	11.06.13	J.C.
0	PRELIMINARY - FOR REVIEW AND COMMENT ONLY	11.01.13	J.C.

SCALE  
**AS SHOWN**

COORDINATE SYSTEM:      HEIGHT DATUM: AHD

**LIVEABLE CITY**  
 THE CITY OF  
**Newcastle**  
 INFRASTRUCTURE  
 MANAGEMENT SERVICES

REVIEWED: J.C.

APPROVED:

SIGNED: *[Signature]*  
 INFRASTRUCTURE MANAGEMENT SERVICES MANAGER

DATE: 11/6/13

**THE CITY OF NEWCASTLE**

**ROCK PITCHED HEADWALL AND  
 ENERGY DISSIPATER OUTLET FOR  
 NATURAL GRADE BETWEEN 5% AND 10%**

NCC PLAN No.	SHEET No.
<b>A2305</b>	2
	OF
	2
AMENDMENT No.	SHEETS

A3 ORIGINAL THIS SHEET WAS PREPARED IN COLOUR AND WILL BE INCOMPLETE IF COPIED