CONSTRUCTION PROCEDURE FOR WORKING SOIL NAILS

1. DRILL HOLE AT THE REQUIRED INCLINATION AND TO THE REQUIRED DEPTH AND DIAMETER.
2. IMMEDIATELY INSTALL THE REINFORCEMENT BAR AND FILL THE DRILLHOLE COMPLETELY WITH CEMENT GROUT. THE GROUTING IS PERFORMED BY INSERTING A GROUTING TUBE TO THE BOTTOM OF THE HOLE AND PUMPING. THE INSTALLED STEEL BAR SHALL NOT BE DISTURBED FOR THE NEXT 24 HOURS.
3. CONSTRUCT THE NAIL HEAD IN ACCORDANCE WITH THE TYPICAL SECTION OF SOIL NAIL HEAD.

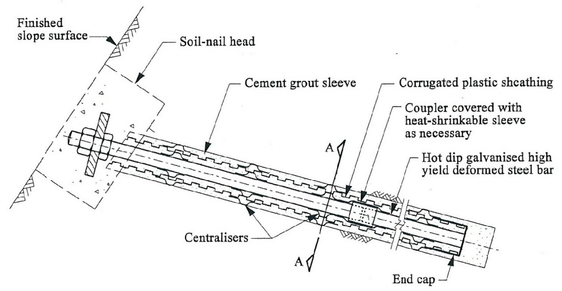
NOTES ON FOUNDING STRATA FOR L-SHAPED T-SHAPED RETAINING WALL

1. THE RETAINING WALL SHALL BE FOUNDED ON WELL-COMPACTED GRANULAR SOIL MATERIALS/IN-SITU SOILS WITH MINIMUM DEGREE OF COMPACTION NOT LESS THAN 95 % OF MAXIMUM DRY DENSITY.
2. ALL FOUNDING MATERIALS SHALL BE INSPECTED AND ACCEPTED BY SO PRIOR TO CASTING.
3. MINIMUM BEARING CAPACITY OF THE FOUNDING MATERIALS SHALL BE 150kPa.
4. IF INCOMPETENT MATERIALS ARE ENCOUNTERED AT THE PROPOSED FOUNDING LEVELS, THE INCOMPETENT MATERIALS SHALL BE REMOVED AND REPLACED BY MASS CONCRETE FILL GRADE 20P.

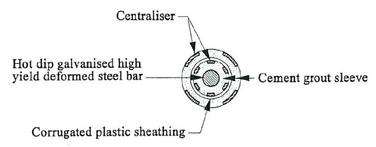
NOTES FOR SITE SUPERVISION

1. THE CAT I SITE SUPERVISION PERSONAL UNDER THE RGE'S STREAM SHALL SUBMIT REGULAR REPORTS OF HER/HIS/THEIR FINDINGS AND RECOMMENDATIONS TO THE RGE. THE RGE SHALL FORMALLY SUBMIT THESE REPORTS TO THE GEO AT MONTHLY INTERVALS OR MORE FREQUENTLY AS NECESSARY.
2. TYPICAL CONTENTS OF THE REGULAR REPORTS PREPARED BY THE CAT I SITE SUPERVISION PERSONAL SHOULD INCLUDE THE FOLLOWING:

   (1) PROGRESS OF THE WORKS
   (2) RESULTS OF MONITORING DURING CONSTRUCTION
   (3) SITE OBSERVATIONS
   (4) INSPECTION RECORD
   (5) REVIEW

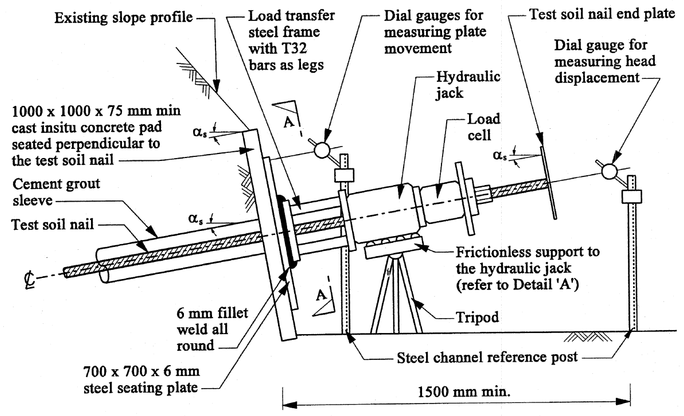


Typical Section

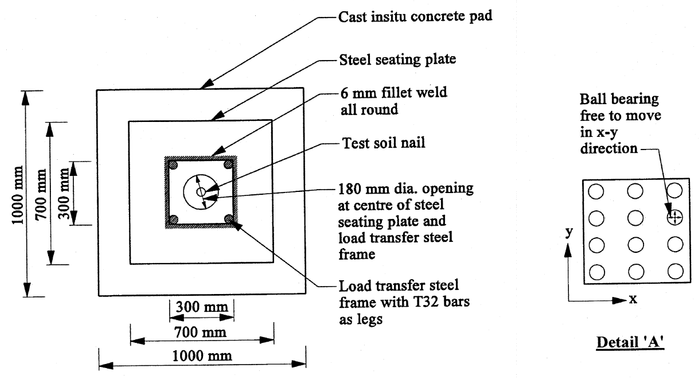


Section A - A

CLASS 1 SOIL NAIL DETAILS



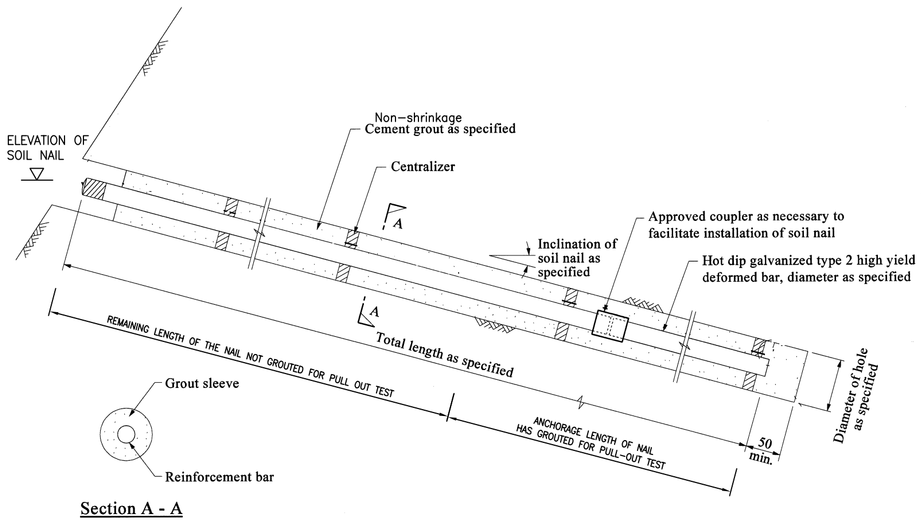
Set-up for Pullout Test



Detail 'A'

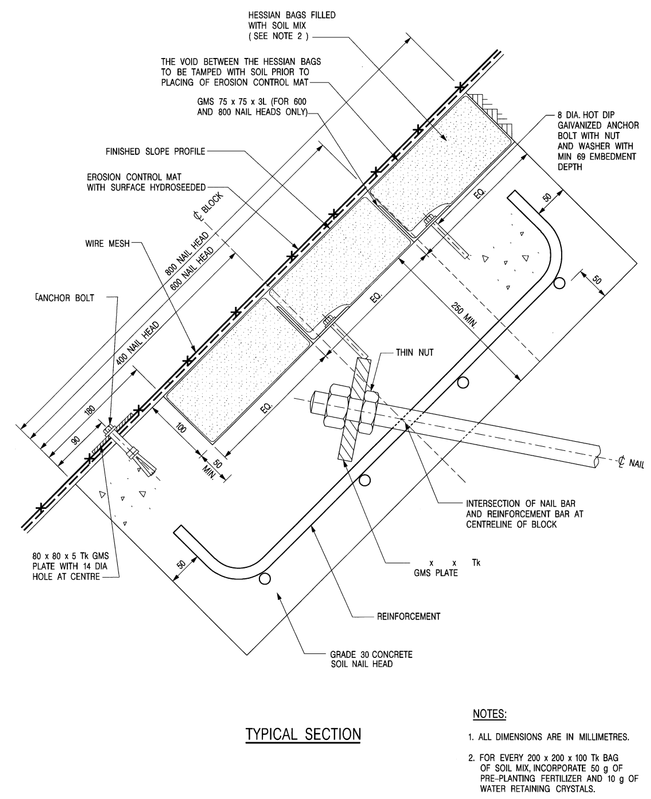
Section A-A

DETILS OF PULLOUT TEST (N.T.S.)



Section A - A

CLASS 2 SOIL NAIL DETAILS



TYPICAL SECTION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. FOR EVERY 200 x 200 x 100 Tk BAG OF SOIL MIX, INCORPORATE 50 g OF PRE-PLANTING FERTILIZER AND 10 g OF WATER RETAINING CRYSTALS.

DETAILS OF RECESSED SOIL NAIL HEAD

TEST NAIL SCHEDULE

TEST NAIL NO.	TOTAL LENGTH m	ANCHORAGE LENGTH m	INCLINATION TO HORIZONTAL Degree	NAIL BAR DIAMETER mm	DRILLHOLE DIAMETER mm	Ta kN	TDL1 kN	TDL2 kN	TESTING FORCE, Tp kN
TN1~TN3	8	4	20	32	150	17	30	60	333
TN4	15	8	15	32	150	17	135	270	333
TN5	15	8.5	15	32	150	17	135	270	333
TN6	15	9	15	32	150	17	135	270	333

SOIL NAIL SCHEDULE

TYPE	SOIL NAIL NO.	CLASS OF CORROSIVE PROTECTION	SECTION	TOTAL LENGTH m	INCLINATION TO HORIZONTAL Degree	HORIZONTAL SPACING m	NAIL BAR DIAMETER mm	DRILLHOLE DIAMETER mm	DESIGN WORKING FORCE kN	Nail Head Size mm	Nail Head Plate Size mm	Rebar Size
A	A1 ~ A7	CLASS 1	4	15	15	1.5	32	150	135	650 x 650 x 250Thk.	150 x 150 x 20Thk.	4T16 U-BARS Both Way
B	B1 ~ B8	CLASS 1	4	15	15	1.5	32	150	135			
C	C1 ~ C44	CLASS 2	11,14	8	20	2	32	150	30	400 x 400 x 250Thk.		
CC	CC1 ~ CC8	CLASS 1	4	15	15	1.5	32	150	135	650 x 650 x 250Thk.		
D	D1 ~ D7	CLASS 1	4	15	15	1.5	32	150	135			
E	E1 ~ E8	CLASS 1	4	15	15	1.5	32	150	135			
F	F1 ~ F7	CLASS 1	4	15	15	1.5	32	150	135			
G	G1 ~ G8	CLASS 1	4	15	15	1.5	32	150	135			
H	H1 ~ H8	CLASS 1	4	15	15	1.5	32	150	135			

Notes :

No.	Date	Description	Initial
	05/01/12	TENDER DRAWING	

Revision

Consultant Project No.
8165

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	Name	Signed	Date
Designed			
Drawn			
Checked			
Approved			

Contract No.

File No.

Project No.
420 RO

Consultant Agreement No.
9AS022

Contract
LOCAL OPEN SPACE AT CHUNG YEE STREET, KOWLOON CITY DISTRICT

Drawing Title
TYPICAL DETAILS AND NOTES

Drawing No.
SE/2263/NTSF006

Scale
AS SHOWN

(Date)

ARCHITECTURAL SERVICES DEPARTMENT