

CONSTRUCTION SEQUENCE

1. REMOVE ALL RUBBISH, VEGETATION AND DEBRIS UNTIL IN-GIT 60L C.D.T. IS REACHED.
2. FORM STEP BENCHING.
3. PLACE 75MM THICK BUNDLING LAYER.
4. FIX A393 WIRE MESH WITH MIN. 50MM CONCRETE COVER.
5. FIX 75MM PVC WEEDHOLE AT 1.5M C/C HORIZONTAL.
6. FIX FRAMEWORKS FOR MW1, MW2 AND MW3.
7. PLACE MASS CONCRETE FOR MW1, MW2 AND MW3.
8. REMOVE FRAMEWORKS.
9. CONSTRUCT THE CONCRETE STEPS.
10. CARRY OUT DRAINAGE WORKS.
11. FIX STEEL RAILING.

EXCAVATION FOR STEP BENCHING

1. EXCAVATE FROM GROUND LEVEL TO BOTTOM LEVEL +23.00 AT STEP 1.
2. EXCAVATE FROM GROUND LEVEL TO BOTTOM LEVEL +14.00 AT STEP 2.
3. EXCAVATE FROM GROUND LEVEL TO BOTTOM LEVEL +25.00 AT STEP 3.
4. EXCAVATE FROM GROUND LEVEL TO BOTTOM LEVEL +26.00 AT STEP 4.
5. EXCAVATE FROM GROUND LEVEL TO BOTTOM LEVEL +27.00 AT STEP 5.

EXCAVATION AT STEP 5

EXCAVATION AT STEP 5 SHOULD BE CARRIED OUT PIT BY PIT.
PIT SIZE OF PIT SHOULD NOT EXCEED 2.0M WIDE, 6.0M LONG,
AND 1.0M DEEP.

NOTES ON MASS CONCRETE WALLS

1. CONCRETE MIX FOR ALL CONCRETE FILL SHALL BE GRADE C30/20 COMPLYING WITH CS1:2010 EN 12620.
2. BLINDING LAYER SHALL BE GRADE C30/20 AND 75MM THICK. ADD MORE WIRE MESH WITH MIN. 50MM CONCRETE COVER SHALL BE PROVIDED AS SHOWN IN THIS DRAWING WITH MINIMUM 50MM CONCRETE COVER.
3. BENCHING OF ORIGINAL GROUND IS TO BE CARRIED OUT AS SPECIFIED IN BRAVING PRIOR TO PLACEMENT OF CONCRETE FILL OR AS DIRECTED BY ENGINEER ON SITE.
4. FILLING MATERIAL OF PROPOSED CONCRETE FILL SHALL BE COMPLETELY DECOMPOSED TUFF (C.D.T.) OR BETTER MATERIAL. ALL RUBBISH, VEGETATION AND DEBRIS ARE TO BE REMOVED. ANY CAVITY SHALL BE FILLED WITH CONCRETE.
5. THE REACTIVE ALKALI OF CONCRETE EXPRESSED AS THE EQUIVALENT SODIUM OXIDE PER CUBIC METER OF CONCRETE SHOULD NOT EXCEED 3.0 KG WHEN DETERMINED IN ACCORDANCE WITH THE SPECIFICATION ITEMS GIVEN IN APPENDIX A OF PNAP APPROX.

NOTES ON STEEL RAILING

1. STEEL RAILING TO BE CLASS 1, GRADE S275 (10190 BS EN 10210-12006 FOR HOLLOW SECTION AND OTHERS TO BS EN 10025:2004 (4c)).
2. ALL WELDING TO BE 4MM FILLET WELD ALL ROUND TO BS EN 10018-10000 AND ELECTRODES TO BE EN ISO 2560/2009.
3. ALL STEEL TO BE HOT DIPPED GALVANIZED TO BS EN ISO 1461/2009 WITH MIN. 85µm.
4. CATEGORY USED FOR DESIGN TO BE 'AREAS WHERE CONCENTRATION OF PEOPLE IS NOT EXPECTED'.
5. MIN. HORIZONTAL IMPOSED LOADS USED FOR DESIGN ARE AS FOLLOWS:
A) LINE LOAD TO BE APPLIED AT A HEIGHT OF 1.1M ABOVE THE FLOOR LEVEL IS 0.75 KN/M.
B) UNIFORMLY DISTRIBUTED LOAD TO BE APPLIED ON THE INFILL BETWEEN FLOOR AND TOP RAIL IS 10 KPA.
C) CONCENTRATED LOAD TO BE APPLIED ON ANY PART OF THE INFILL BETWEEN FLOOR AND TOP RAIL IS 0.5 KN.
6. ALL DOGS TO BE GRADE B TO BS 5692:2001.

DESIGN STANDARD AND CODES

ALL DESIGN AND CONSTRUCTION ARE TO BE COMPLIED WITH THE FOLLOWINGS:

1. HONG KONG BUILDING (CONSTRUCTION) REGULATIONS 2012.
2. COP FOR STRUCTURAL USE OF CONCRETE 2013.
3. COP FOR STRUCTURAL USE OF STEEL 2011.
4. COP FOR DEAD AND IMPOSED LOADS 2011.
5. GEOTECHNICAL MANUAL FOR SLOPE 2011.
6. GUIDE TO RETAINING WALL DESIGN 2008.
7. CONSTRUCTION STANDARD CS13010 AND CS2012.
8. COP ON WIND EFFECTS IN HONG KONG 2019.

DESIGN ASSUMPTIONS

1. SOIL PARAMETERS FOR CDT TO BE $c' = 3.0$ KPA AND $\phi' = 35^\circ$.
2. DESIGN WORTH CREDIBLE GROUNDWATER TABLE TO BE AT 1/2 OF SLOPE HEIGHT AND 1/3 OF WALL HEIGHT.
3. NOMINAL SURCHARGE TO BE 50 KPA.
4. SURCHARGE OF HOUSE LOAD TO BE 30 KPA.
5. ALLOWABLE BEARING CAPACITY OF GROUND TO BE 180 KPA.
6. BACK WIND PRESSURE $w = 1.59$ KPA.
7. PRESSURE COEFFICIENT FOR WIND $C_p = 2.00$.

Filling Zone

Area of excavation: 158.95 sq.m
Depth of excavation: 5m

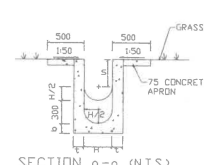
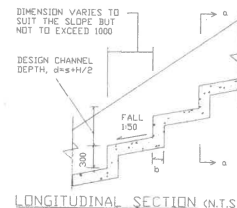
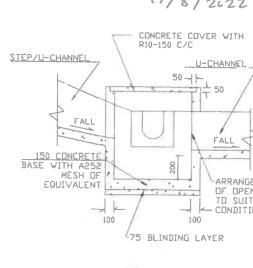
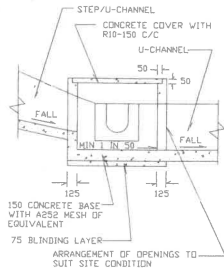
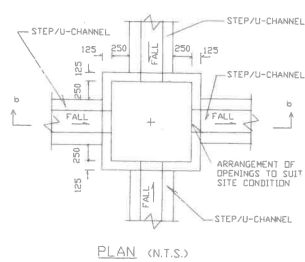
Excavation Zone

Area of excavation: 133.5 sq.m
Depth of excavation: 2.5m

SECTION B-B (1:200)

FOOTING SCHEDULE OF MASS CONCRETE WALLS

WALL MARK	FOUNDING MATERIAL	MAX. BEARING PRESSURE (KPA) (ALLOWED LOAD)	ALLOWABLE BEARING CAPACITY (KPA)
MW1 C.D.T.	141 (765)	180	180
MW2 C.D.T.	133 (765)	180	180
MW3 C.D.T.	82 (765)	180	180



Location: Lot 2220 in D.D.3 TC and Adjoining Government Land
Application: Filling of land and excavation of land work for permitted NTEH
Plan 5 - Site formation plan (Slope with U channel section)

