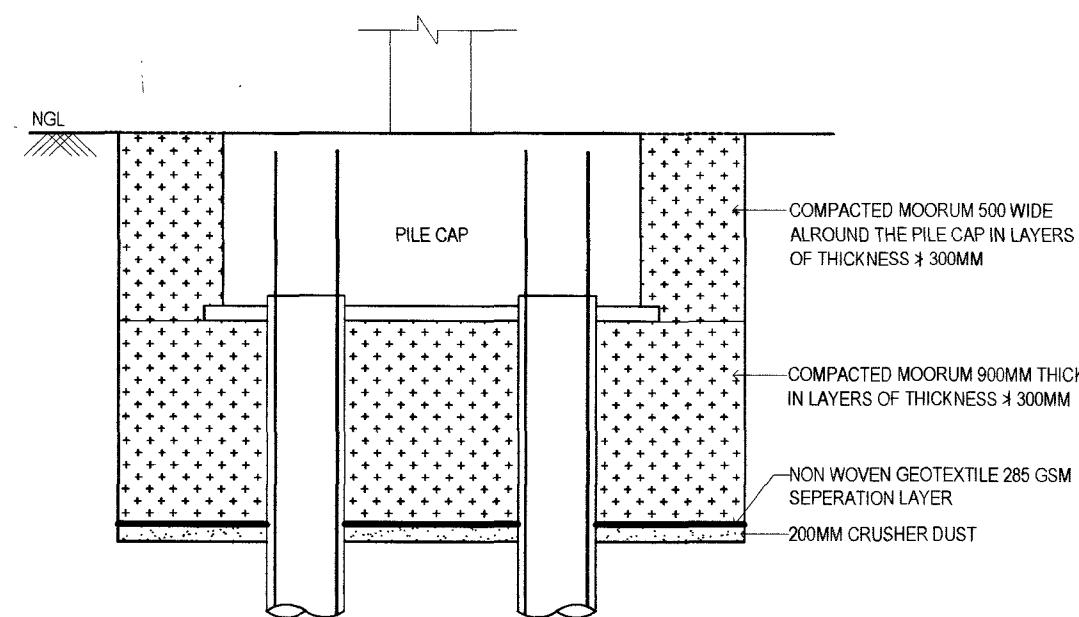
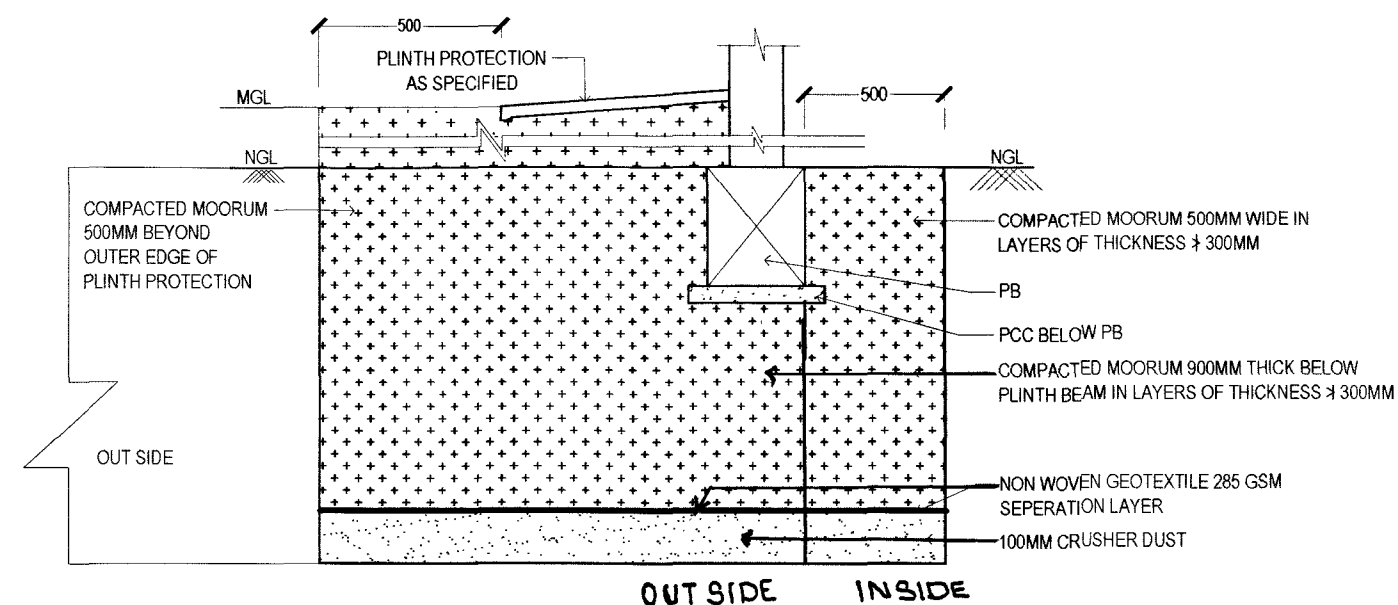


TYPICAL CROSS SECTION SHOWING SOIL STABILIZATION BELOW ROAD CONSTRUCTION



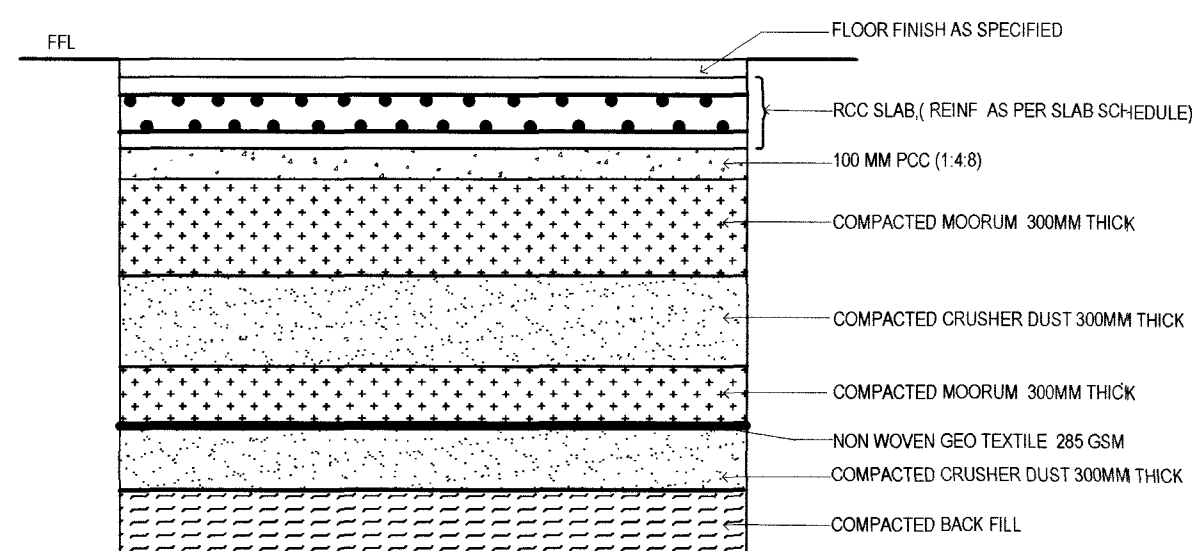
TYPICAL CROSS SECTION DETAILS OF SOIL STABILIZATION AROUND /BELOW PILE CAPS IN HANGAR, ANNEXE, HARD STANDING (FRONT & REAR), AC PLANT ROOM, CAR PARKING & SCOOTER PARKING



TYPICAL CROSS SECTION FOR FILLING UNDER & SIDES OF EXTERNAL PLINTH BEAM

NOTE :-

1. SOIL STABILIZATION INSIDE THE BUILDING PART SHALL BE AS PER TYPICAL CROSS SECTION DETAILS OF SOIL STABILIZATION BELOW FLOORING IN LIEU OF DETAILS SHOWN ABOVE.



TYPICAL CROSS SECTION DETAILS OF SOIL STABILIZATION BELOW FLOORING IN HANGAR, ANNEXE, HARD STANDING (FRONT & REAR), AC PLANT ROOM, CAR PARKING & SCOOTER PARKING

SPECIFICATIONS FOR GEOCELL

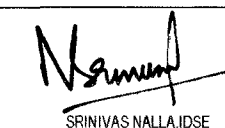
S.NO	PROPERTY	UNIT	VALUE
1	BASIC POLYMER	—	HDP
2	POLYMER DENSITY	G/CM ³	0.935 - 0.965
3	CARBON BLACK CONTENT	%	2.0%
4	SHEET THICKNESS	MM	>1.5
5	CELL HEIGHT	MM	150
6	EXPANDED CELL DIMENSIONS	WIDTH LENGTH	244MM 210MM
7	EXPANDED PANEL DIMENSIONS	WIDTH LENGTH	2.44MM 6.10MM
8	MINIMUM PEEL SEAM STRENGTH	—	2130N
9	ENVIRONMENTAL STRESS CRACK RESISTANCE (ECSR)	HRS	3000
10	CREEP RUPTURE STRENGTH	—	CREEP RUPTURE LOAD AT 10,000 HOURS SHALL BE 1KN MINIMUM OBTAINED FROM THE 95% PREDICTION INTERVAL AT 10,000 HOURS CONSIDERING A LONGARITHMIC TIME /CREEP RUPTURE MODEL

REQUIREMENT OF NON WOVEN GEOTEXTILE FABRIC

S.NO	PROPERTY	MINIMUM DESIRABLE VALUE
1	MATERIALS	POLYPROPYLENE/ POLYAMIDE /POLYETHYLENE/POLYESTER OR COMBINATION THERE OF
2	STRUCTURE	NON-WOVEN NEEDLE PUNCHED AND MECHANICALLY OR THERMALLY BONDED OR EQUIVALANT
3	THICKNESS	2.5MM
4	MASS PER UNIT AREA	285
5	TENSILE STRENGTH (AVERAGE OF MD, CD)	> 20 kN
6	ELONGATION AT BREAK AS PER ASTM D 4632 AND IS 13162 PART 5	> 40 %
7	MINIMUM STRENGTH PROPERTY (MARV-MIN AVERAGE ROLL VALUE IN WEAKER PRINCIPAL DIRECTION UNDER MODERATE INSTALLATION CONDITIONS)	—
a)	GRAB STRENGTH AS PER ASTM D 4632/IS 13162 PART 5 (ELONGATION AT FAILURE > 50%)	1.2kN
b)	TEAR STRENGTH AS PER ASTM D 4533/IS 14293 (ELONGATION AT FAILURE > 50%)	250N
c)	PUNCTURE STRENGTH AS PER ASTM D 6261/IS 14293 (ELONGATION AT FAILURE > 50%)	3000
d)	BURST STRENGTH AS PER ASTM D 3786/IS 1966 (ELONGATION AT FAILURE > 50%)	3000
8	ULTRA VIOLET SENSITIVITY GRAB, TEAR, PUNCTURE AND AND BURST STRENGTH SHOULD BE RETAINED BY MORE THAN 70% AFTER 500 HOURS OF EXPOSURE.	—
9	HYDRAULIC REQUIREMENTS:	—
a)	MAX APPARENT OPENING SIZE AS PER ASTM D 4751/IS 14294	180 MICRON
b)	PERMITTIVITY AS PER ASTM D 4491/IS 14324	>1.5/SECOND
c)	FLOW RATE	95 l /SEC/SQM

NOTES :-

- 1) MOORUM :-
 - a) MOORUM TO BE USED FOR BACKFILLING SHALL NOT HAVE LIQUID LIMIT EXCEEDING 35% AND PLASTICITY INDEX IN EXCESS OF 15%.
 - b) MOORUM SHALL BE COMPACTED IN LAYERS OF THICKNESS NOT EXCEEDING 300MM BY MECHANICAL MEANS TO ACHIEVE MDD OF MINIMUM 97%.
 - c) THE SOAKED CBR VALUE OF MOORUM SHALL NOT BE LESS THAN 10%.
- 2) GEO TEXTILE:-
 - a) THE GEO TEXTILE SHALL BE LAID WRINKLE FREE ON THE CRUSHER DUST ALONG THE DIRECTION OF TRAFFIC.
 - b) OVER LAPE OF MINIMUM 300 SHALL BE PROVIDED BETWEEN THE ADJACENT ROLLS IN THE DIRECTION OF CONSTRUCTION AND AT THE END OF ROLL OVERLAP LENGTH SHALL NOT BE LESS THAN 450MM AND IF LAID IN WATER MINIMUM 1000MM OVERLAP SHALL BE PROVIDED.
 - c) A SEWN SEAM SHALL BE USED FOR THE SEAMING OF GEO TEXTILE POLYPROPYLENE OR POLYESTER THRED SHALL BE USED FOR SEAMING. NYLON THREADS SHALL NOT BE USED.
- 3) GEOCELL -
 - a) GEOCELL SECTION SHALL BE FASTENED TOGETHER USING PNEUMATIC STAPLER OR WITH THE ACCESSORIES AS PER MANUFACTURERS INSTALLATION GUIDE.
 - b) AT THE EDGE GEOCELL PANEL SHALL BE ANCHORED AT EACH CELL WITH 'U' HOOK OR THE PIN PROVIDED BY MANUFACTURER OF LENGTH NOT LESS THAN 450MM.
- 4) THE DETAILS INCLUDED IN THIS DRAWING ARE BASED ON RECOMMENDATIONS OF ANDHRA UNIVERSITY VIDE THEIR REPORT DT. 11 MAR 2023 WHICH IS RECEIVED UNDER GE(P) NO 2 LETTER NO. 2025/59/E2 DT. 13 APR 2023.

23 MAY 2023	NOTE ADDED AT TYP CROSS SEC. FOR FILLING UNDER & SIDES OF EXTERNAL PB.	18	
S.NO	DATE	DESCRIPTION	INITIALS
REVISIONS			
PROVISION OF HANGAR AND ANNEX BLDG INS DEGA VISAKHAPATNAM			
TYPICAL DETAILS OF SOIL STABILIZATION BELOW FLOORING, PILE CAPS, ROAD			
DATE	16.05.2023	CHIEF ENGINEER (NAVY) VISAKHAPATNAM ZONE	SHEET NO
DRN	NB SUB PRAMOD KUMAR		1/1
DRGS CKD	AAD (ARCH)		
SCALE	—	REF DRG NO : CEVZ /2023 / WD-2120 (S) AMDT	
 SRINIVAS NALLAJOSE CE(NF) DIR (DESIGN) FOR CHIEF ENGINEER			