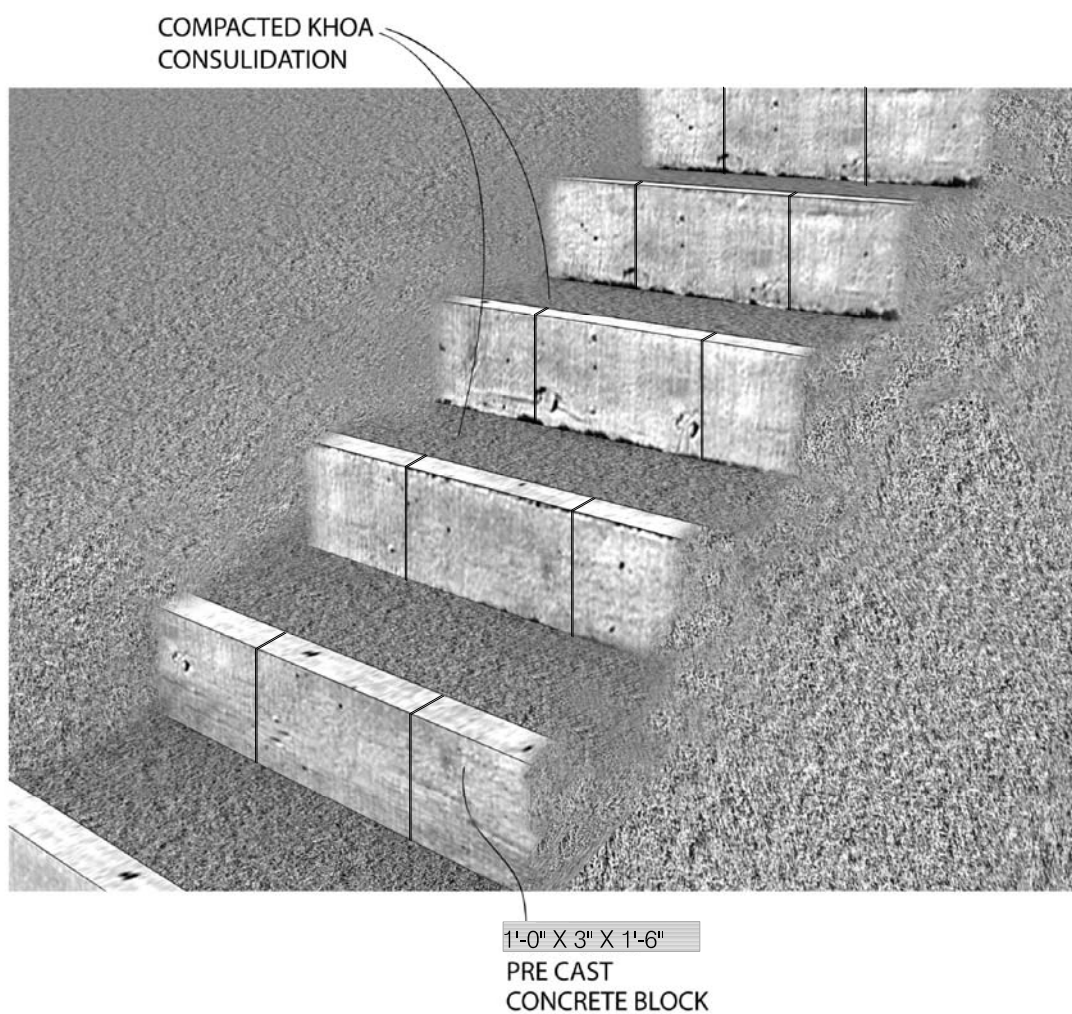


(7B)

## STEPS WITHOUT RAILINGS FOR STEEP HIKING TRAILS (9" STEPS)

*Axonometric View.*



NISHORGO SUPPORT PROJECT  
&  
DEPT. OF FOREST GOB.

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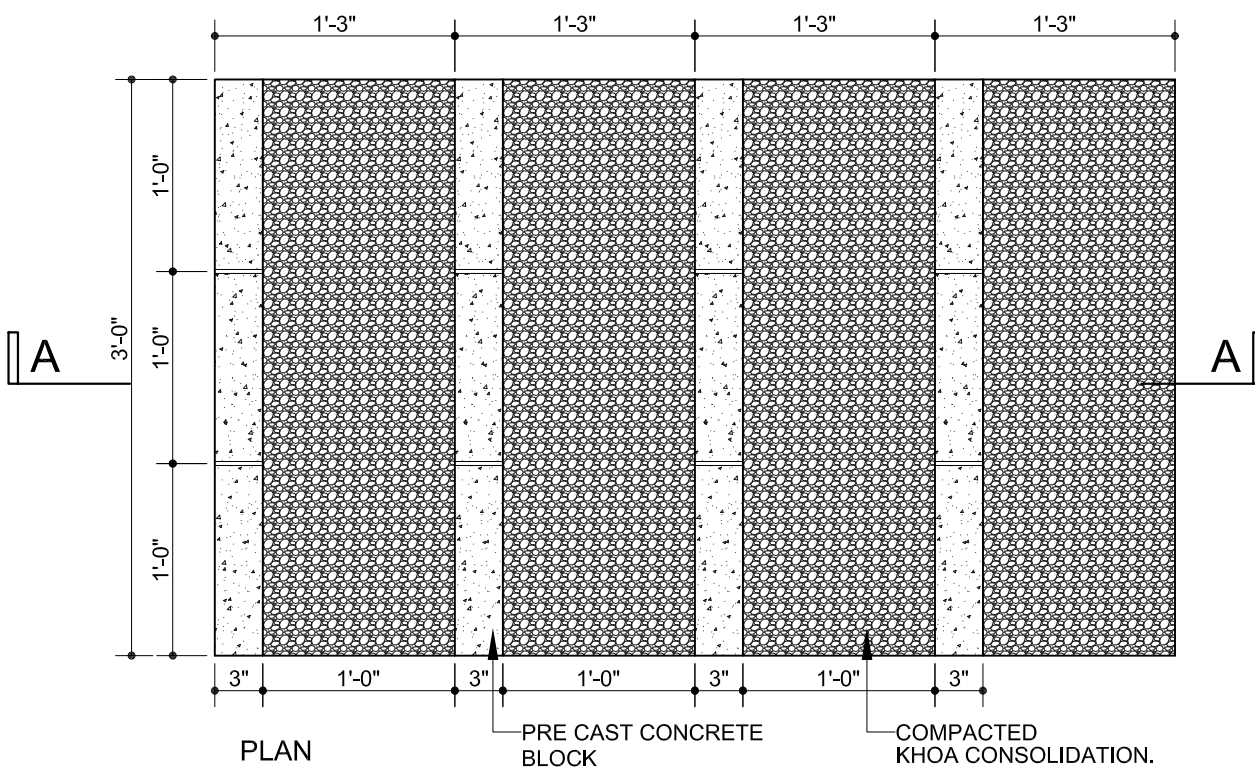
SCALE : NOT TO SCALE

DRAWN : SHAMEEM

DATE : MARCH, 2007.

SHEET NO : 7B 1

*Design Drawings.*



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SCALE	: 1" = 1'-0"
DRAWN	: SHAMEEM
DATE	: MARCH, 2007.
SHEET NO :	7B 2

7B

# STEPS WITHOUT RAILINGS FOR STEEP HIKING TRAILS (9" STEPS)

## Design Drawings.

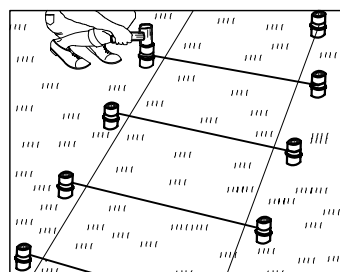


FIGURE-1

(1) MARKING ON GROUND WITH STRING & WOODEN PEG.

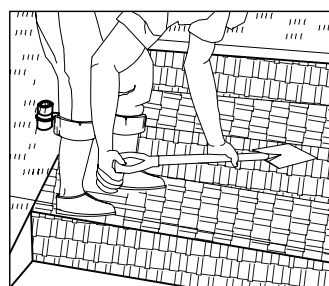


FIGURE-3

(2) CUTTING & SHAPING OF EARTH.

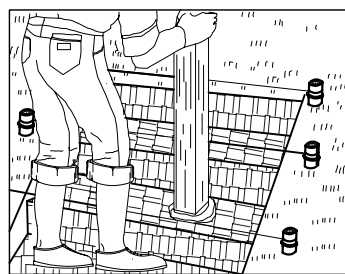


FIGURE-2

(3) COMPACTION OF EARTH.

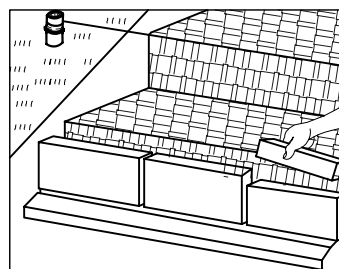


FIGURE-4

(4) PLACING OF CONCRETE BLOCK.

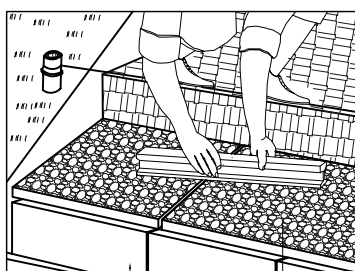


FIGURE-6

(5) PLACING OF GRAVELS & DRESSING.

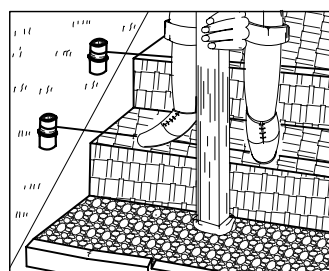


FIGURE-5

(6) COMPACTING THE GRAVELS WITH HAND COMPACTOR.

## PLAN



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SCALE : 3/8" = 1'-0"

DRAWN : SHAMEEM

DATE : MARCH, 2007.

SHEET NO : 7B 3

07.B

STEPS WITHOUT RAILING FOR STEEP HIKING TRAILS (9" STEPS)

*Technical Data and Specifications*

Components Required for 5'-0" way (4 Nos. Steps) :

Description	Characteristics	Unit	Dimensions		
			Height	Length	Width
Concrete vertical member	Pre-cast concrete block (1:1.5":3")	15 Nos.	1'-6"	1'-0"	3"
Khoa Consolidation	Sand & brick chips (20mm down graded) mixture (2:1)	4 Nos.	4"	3'-0"	1'-0"
Cutting and Ramming of earth	Cutting & Compaction of earth as per design with spade, peg, string & hand compactor etc.	1 Item			
Joint filling	Filling the joints of concrete block with cement sand mortar (1:3)	1 Item			

Summary of Materials :

Fit out Parts	Type of Materials	Nos.	Volume		Weight	Long
			M <sup>3</sup>	(p.m.p.)	(Kg)	(mm)
Cement	Portland Cement				62.00	
Aggregate	Brick Chips (1/2" to 3/4")		0.12			
Aggregate	Stone Chips (1/2" to 3/4")		0.15			
Sand	Medium sand (F.M. 1.5)		0.06			
Sand	Coarse sand (F.M. 2.5)		0.08	-	-	
Compaction work	Hand compactor, Peg & String	1 Item				

Specifications :

- Concrete should be poured in proportion 1:1.5:3 (Cement : Sand : Stone chips)
- Stone chips should be of 12 mm down graded.
- Sand and chips should be washed with pure water properly before used.
- The concrete should be softened before compaction for leveling. Necessary cement grouting may use at the time of compaction.
- Water cement ratio should be properly maintained.
- Curing should be done for joint filling work up to 7 days