


Proposal of Retaining walls and B/Wall in forest land coming under alignment of Pachhri To Bhatt Pachhri.

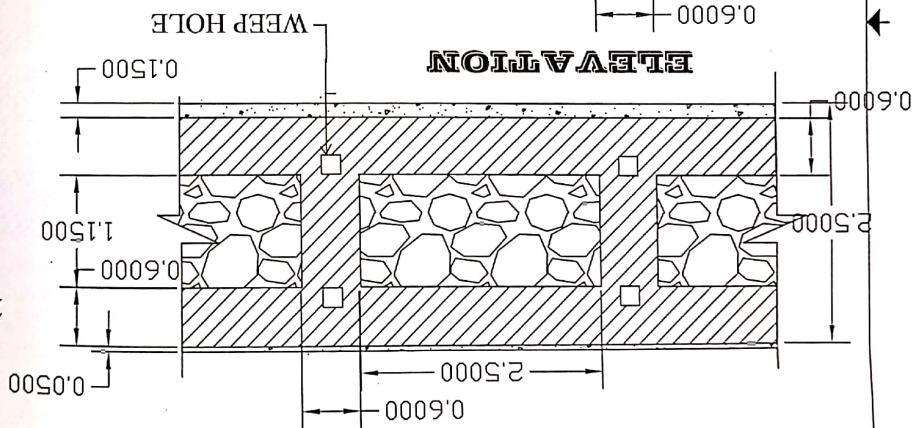
S.No	Description of items	RD	Proposed length (M)	Amount in Rs.
1	Retaining walls			
	Semi Pucca	KM Ist to	800.00 Rmd	198.51
	R/wall	KM 10th		
	Semi Pucca	KM Ist to	3500.00 Rmd	128.10
	E/wall	KM 10th		
	Total			
2.	B/Walls			
	Semi Pucca B/wall	KM Ist to	800. Rmd	25.17
		KM 10th		
	Total			
	Total (1+2)		5100.00 KM	351.78.00

  
Junior Engineer

  
Assistant Executive Engineer  
BCC Road Sub-Division  
Bhaderwah  
Bhaderwah

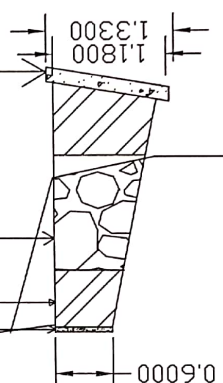
  
Executive Engineer  
Bhaderwah Chamba Road Division  
B. BHADARWAH  
Bhaderwah

**SAMPLE DRAWING OF B/WALL 2.5M HEIGHT.**



50MM THICK COPING M-15 GRADE CONCRETE.  
R/R STONE MASNRY LAID IN CM(1:6) MIX.  
R/R STONE MASNRY LAID IN DRY.  
BED M-5 GRADE CONCRETE -0.15M TH.

**SECTION**



Executive Engineer  
Bhadrachalam District Division

Assistant Executive Engineer  
B.C. Road Sub-Division  
Bhadrachalam

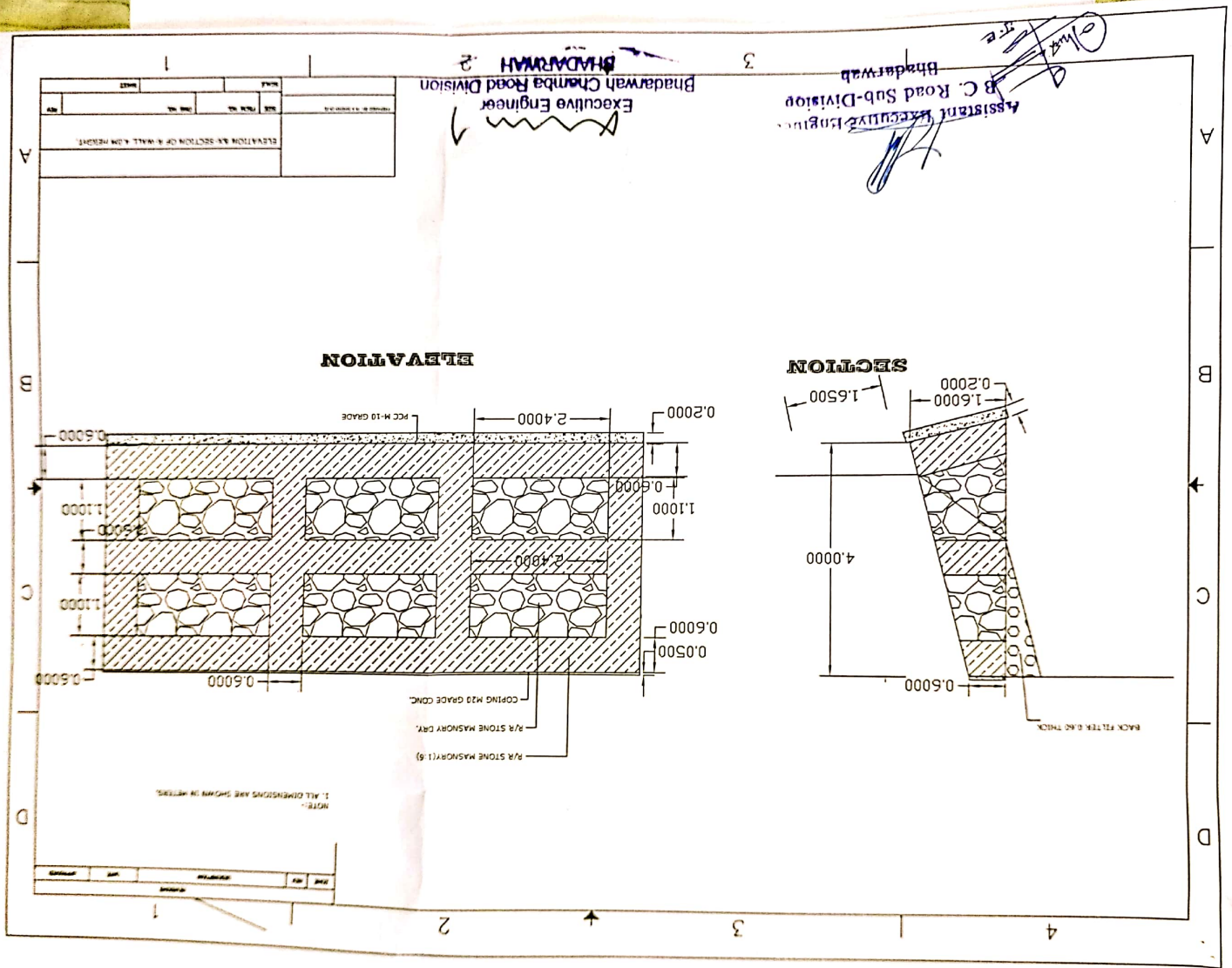
PWD R&B DIV.-BHADRACHALAM	
CONST. OF SEMI-PACCA B/WALL	AT
SIZE PCH NO.	DWG NO.
SCALE	SHEET

M A SHEIKH

1. ALL DINENSION ARE IN MTS.
2. WEEP HOLE 150 X100 MM ARE PROVIDED IN STONE CEMENTED STONE MASNORY @1.2MC/C BOTH WAYS

**NOTE**

ZONE	REV	DESCRIPTION	DATE	APPROVED
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**Typical estimate for construction of semi Pacca R/Wall 4.0mtrs height.  
(Length 11.00mtrs)**

S.no.	Particular of items	Amount (Rupees)
1.	Earth work in excavation over areas (exceeding 30cm in depth, 1.5 in width as well as 10sqm on plan) including disposal of excavated earth and lift up to 1.5m, disposed earth to be leveled and neatly dressed for a lead of 25Mtrs 50% of all kinds of soil, 30% ordinary rock, 20% hard rock  $11 \times (0.75 + 1.50) / 2 \times 1.60 = 19.80 \text{ cum @ Rs. } 382.27/\text{m}^3$	7569.00
2.	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand : 10 stone aggregate) 40mm size of stone agg. $1 \times 11.00 \times 1.6 \times 0.15 = 02.64 \text{ cum @ Rs. } 3672.75/\text{m}^3$	9696.00
3.	Polygonal Rubble Masonry in (1 cement: 6 coarse sand) Nallah in Foundation and plinth including leveling up with cement concentrate 1:6:12 mix with 20mm nominal size stone aggregate. Bottom Band $= 11.0 \times (1.3 + 1.6) / 2 \times 0.60 = 9.57 \text{ cum}$ Top Band $= 11 \times (0.60 + 0.70) / 2 \times 0.60 = 4.29 \text{ cum}$ Vertical Band $= 5 \times (0.70 + 1.3) / 2 \times 2.80 \times 0.6 = 8.40 \text{ cum}$ Total $= 22.26 \text{ cum @ } 2583.50/\text{cum}$	57508.00
4.	Polygonal Random Rubble Masonry Nallah stones laid dry in foundation and plinth with 50% available stone. $2 \times (0.70 + 1.3) / 2 \times 2.8 \times 4 = 22.40 \text{ cum @ Rs. } 1304.45/\text{cum}$	29220.00
5.	Providing and laying horizontal DPC 50mm thick nominal mix concrete 1:2:4 with 20mm stone aggregate. $11 \times 0.6 = 6.6 \text{ sqm @ Rs. } 268.10/\text{sqm}$	1769.00
6.	Supply and hand packed filling of stones: (including cost stones) $11 \times \frac{1}{2} \times 1.10 \times 2.5 = 15.12 \text{ cum @ Rs. } 327.05/\text{cum}$	4946.00
7.	Centering and shuttering Bed $= 11 \times 0.15 = 1.65 \text{ sqm @ Rs. } 342.80/\text{sqm}$	565.00
8.	Carriage of material by MT Stone 10Km by MT Qty. vide item no.3 $= 22.26 \text{ cum}$ Qty. vide item no.4 $= 22.40 \text{ cum}$ Qty. vide item no.6 $= 15.12 \text{ cum}$ Total $= 59.78 \text{ cum @ Rs. } 202.11/\text{m}^3$	12082.00
9.	Stone aggregate 40mm average distance 10Kms by MT Qty. vide item no.2 $= 2.64 \text{ cum @ } 0.94/\text{cum} = 2.48 \text{ cum @ Rs. } 186.73/\text{m}^3$	463.00

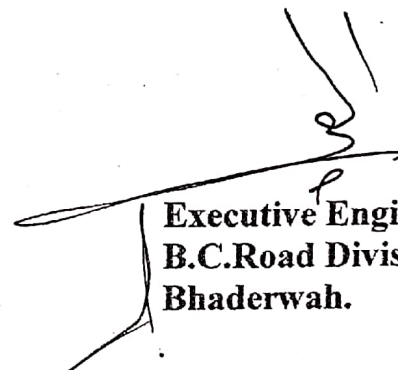
*work.*

10	crushed Bajree average distance 45Kms by Mt Qty. vide item no.5 = 6.6cum @ 0.045/cum = 0.29cum @ Rs389.63/m <sup>3</sup>	113.00
11.	Sand average distance 40Kms by MT Qty. vide item no.2 = 2.64cum @ 0.47/cum = 1.24cum Qty. vide item no.3 = 22.26cum @ 0.38/cum = 8.45cum Qty. vide item no.5 = 6.60 sqm @ 0.023/sqm = 0.15cum Total = 9.84cum @ Rs.360.48m <sup>3</sup>	3547.00
	Total	127478.00
	Add 40% above	50991.00 <del>88243.00</del>
244	Grand Total	178469.00 <del>165721.00</del>

Cost per Meter = Rs. <sup>15000/RM</sup>~~16225/RM~~

  
JE

  
AEE

  
Executive Engineer,  
B.C.Road Division,  
Bhaderwah.

**Typical estimate for construction of semi Pacca B/Wall 2.0mtrs height.  
(Length 11.00mtrs)**

S.no.	Particular of items	Amount (Rupees)
1.	Earth work in excavation over areas (exceeding 30cm in depth, 1.5 in width as well as 10sqm on plan) including disposal of excavated earth and lift up to 1.5m, disposed earth to be leveled and neatly dressed for a lead of 25Mtrs 50% of all kinds of soil, 30% ordinary rock, 20% hard rock $\frac{1}{2} \times 0.3 \times 0.75 = 0.11 \text{sqm}$ $(0.30 + 1.20)/2 \times 0.75 = 0.56 \text{sqm}$ $(1.20 + 1.10)/2 \times 0.65 = 0.74$ Total = $1.41 \times 11 = 15.59 \text{ cum @ Rs. } 382.27/\text{m}^3$	5960.00
2.	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand: 10 stone aggregate) 40mm size of stone agg. $1 \times 11.00 \times 1.1 \times 0.15 = 1.81 \text{cum @ Rs. } 2750.40/\text{m}^3$	4978.00
3.	Polygonal Rubble Masonry in (1 cement: 6 coarse sand) Nallah in Foundation and plinth including leveling up with cement concentrate 1:6:12 mix with 20mm nominal size stone aggregate. Bottom Band = $11.0 \times (1.0 + 1.1)/2 \times 0.60 = 6.93 \text{cum}$ Top Band = $11 \times (0.60 + 0.70)/2 \times 0.60 = 4.29 \text{cum}$ Vertical Band = $5 \times (0.70 + 1.0)/2 \times 0.80 \times 0.6 = 2.04 \text{cum}$ Total = $13.26 \text{cum @ } 2583.50/\text{m}^3$	34257.00
4.	Polygonal Random Rubble Masonry Nallah stones laid dry in foundation and plinth with 50% available stone. $(0.70 + 1.0)/2 \times 2 \times 0.8 \times 4 = 5.44 \text{cum @ Rs. } 1304.45/\text{m}^3$	7096.00
5.	Providing and laying horizontal DPC 50mm thick nominal mix concrete 1:2:4 with 20mm stone aggregate. $11 \times 0.6 = 6.6 \text{sqm @ Rs. } 268.10/\text{sqm}$	1769.00
6.	Centering and shuttering Bed = $11 \times 0.15 = 1.65 \text{sqm @ Rs. } 342.80/\text{sqm}$	565.00
7.	Carriage of material by MT Stone 10Km by MT Qty. vide item no.3 = 13.26cum Qty. vide item no.4 = 5.44cum Total = $18.70 \text{cum @ Rs. } 202.11/\text{m}^3$	3779.00
8.	Stone aggregate 40mm average distance 10Kms by MT Qty. vide item no.2 = $1.81 \text{cum @ } 0.89/\text{cum} = 1.61 \text{cum @ Rs. } 186.73/\text{m}^3$	300.00
9.	Stone agg average distance 45Kms by Mt Qty. vide item no.5 = $6.6 \text{cum @ } 0.045/\text{cum} = 0.29 \text{cum @ Rs. } 389.63/\text{m}^3$	113.00

*contd 2nd*



10	Sand average distance 40Kms by MT Qty. vide item no.2 = 1.81cum @ 0.47/cum = 0.85cum Qty. vide item no.3 = 13.26cum @ 0.38/cum = 5.03cum Qty. vide item no.5 = 6.6 cum @ 0.023/cum = 0.15cum Total = 6.03cum @Rs.360.48m <sup>3</sup>	2174.00
	Total	60991.00
	Add30% above	18297.00
	Grand Total	79288.00

Cost per Meter = Rs. ~~762.00~~<sup>7800/RM</sup>/RM

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AKE

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Executive Engineer,  
B.C.Road Division,  
Bhaderwah.