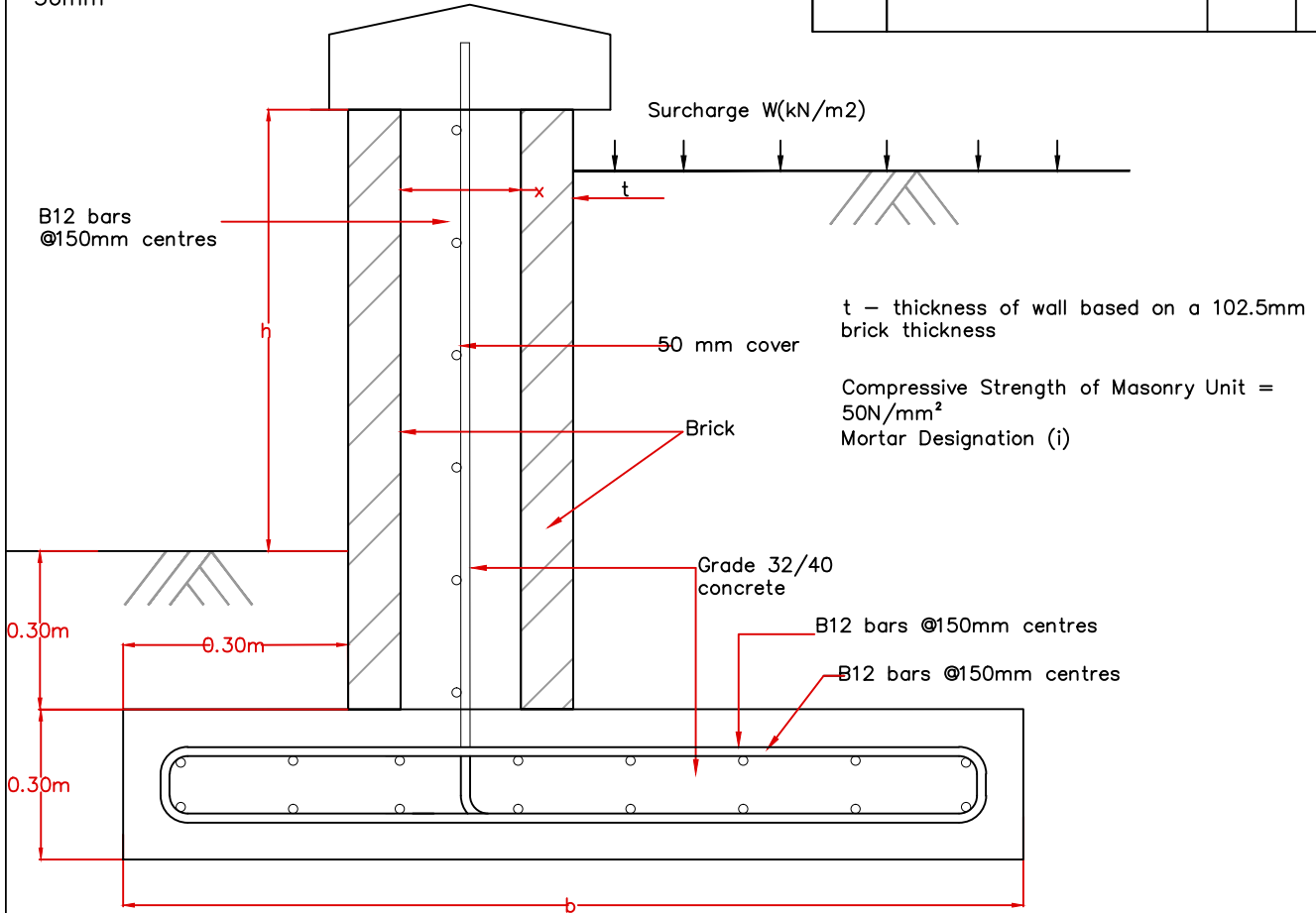


Note Cover to reinforcement = 50mm

Rev.	Amendments	Date	Made By	Chk'd By



t – thickness of wall based on a 102.5mm brick thickness
 Compressive Strength of Masonry Unit = 50N/mm^2
 Mortar Designation (i)

Retained Height h (m)	Surcharge $W(\text{KN/m}^2)$	Cavity Width x (mm) & wall thickness t (mm)	Foundation Width b (m)	Primary Reinforcement in stem
2.1	12	200/405	1.75	B16 bars @ 150 centres
	5	200/405	1.55	B16 bars @ 150 centres
1.8	12	200/405	1.5	B16 bars @ 150 centres
	5	115/320	1.4	B16 bars @ 150 centres
1.5	12	115/320	1.5	B16 bars @ 150 centres
	5	115/320	1.3	B16 bars @ 150 centres

Typical sizes for various retained heights

Wall designed to EC7.

Assumptions made for this design :

- Angle of friction on base = 35 degrees
- No fence or parapet is fixed to the wall
- Water table is below formation level
- Bearing capacity of the ground below the foundation is 150KN/m^2 .

The ground below the foundation should be checked that the angle of friction is at least 35 degrees and the bearing capacity is at least 150KN/m^2 . The dimensions shown in the table are only applicable to walls at locations that meet the above criteria. If these criteria are not met then the walls should be designed to suit the prevailing factors.

All reinforced grouted masonry retaining walls must also include:

- A back of wall drainage system;
- Weepholes;
- Joints at appropriate spacings;
- Finishes to highway standards.
- The reinforced concrete foundation slab must be laid on a blinding layer 75mm thick.
- The buried reinforced concrete foundation slab must also be waterproofed with two coats of bitumen.

REINFORCED GROUTED MASONRY WALL

HIGHWAY DESIGN GUIDE STANDARD DETAILS

RHONDDA CYNON TAF
 COUNTY BOROUGH COUNCIL



Drawn	AM
Checked	MR
Date	Apr '11
Scale	NTS
Drg. No.	296
Rev.	