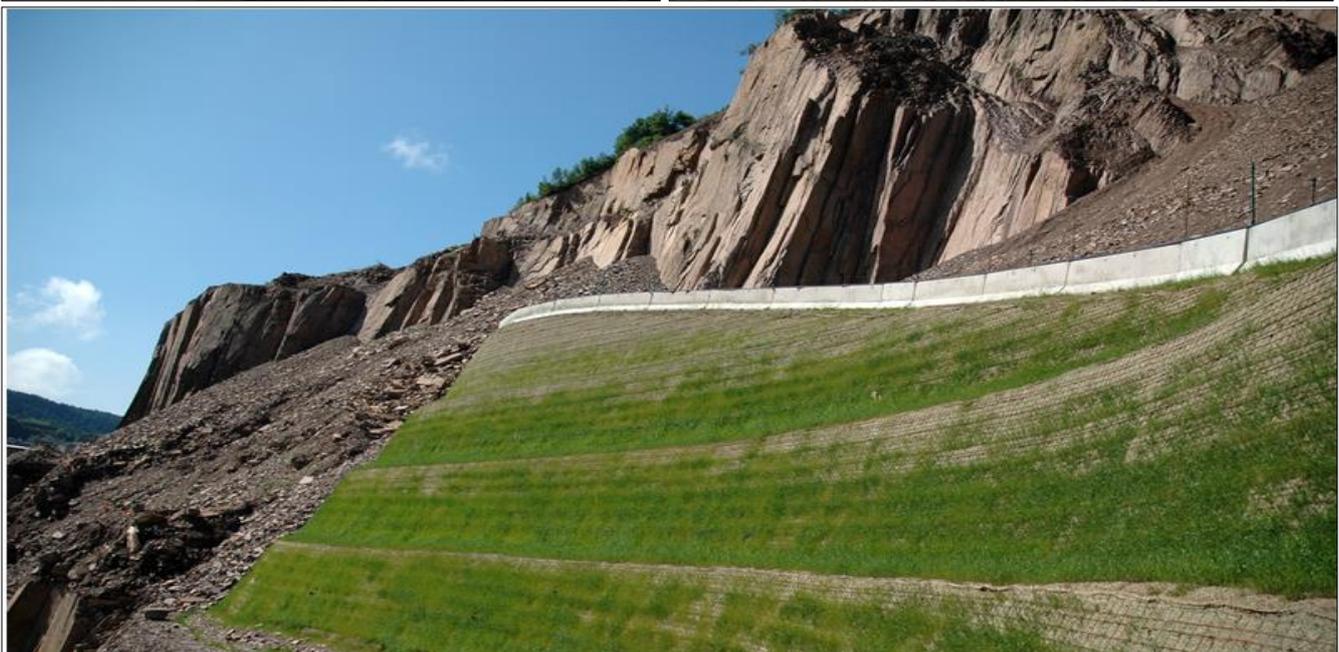


# LIVING EARTH GREEN WALL™

WELDED STEEL MESH FACING COMBINED WITH GEOGRID REINFORCED SOILS



**THE ABOVE PHOTOS ARE REPRESENTATIVE OF RECENT EUROPEAN PROJECTS CONSTRUCTED USING TENAX 'TT' HDPE GEOGRIDS AND HUESKER FORTRAC POLYESTER GEOGRIDS**

## LIVING EARTH GREEN WALL FEATURES AND BENEFITS

Living Earth Green Wall panels are a steel mesh formwork / facing system that speeds the construction of MSE walls. The geogrid is the primary reinforcement of both the wall face and the reinforced block, ie; the wrap around system. The panel is a principally a construction aid but has other significant benefits.

- Has a low environmental impact when fully planted or grassed.
  - Easily planted or seeded.
  - Custom made in New Zealand.
  - The panel bars can be configured as required.
  - The panel lifts can be configured as required
  - The panel method can be used on all wall heights
  - The panel allows variable face angles up to 80°
  - The panel has a low installed cost when compared with other systems and methods of construction.
- Simple and fast construction.
  - The panel is principally a construction aid.
  - The panel facing is non-structural, the geogrid reinf. is the primary structural element.
  - Restricts vandalism to the wall face.
  - Damage to the face geogrid and panel can be readily made good.
  - Readily accommodates the construction of curved and benched walls.
  - Walls design as per standard practice for MSE walls

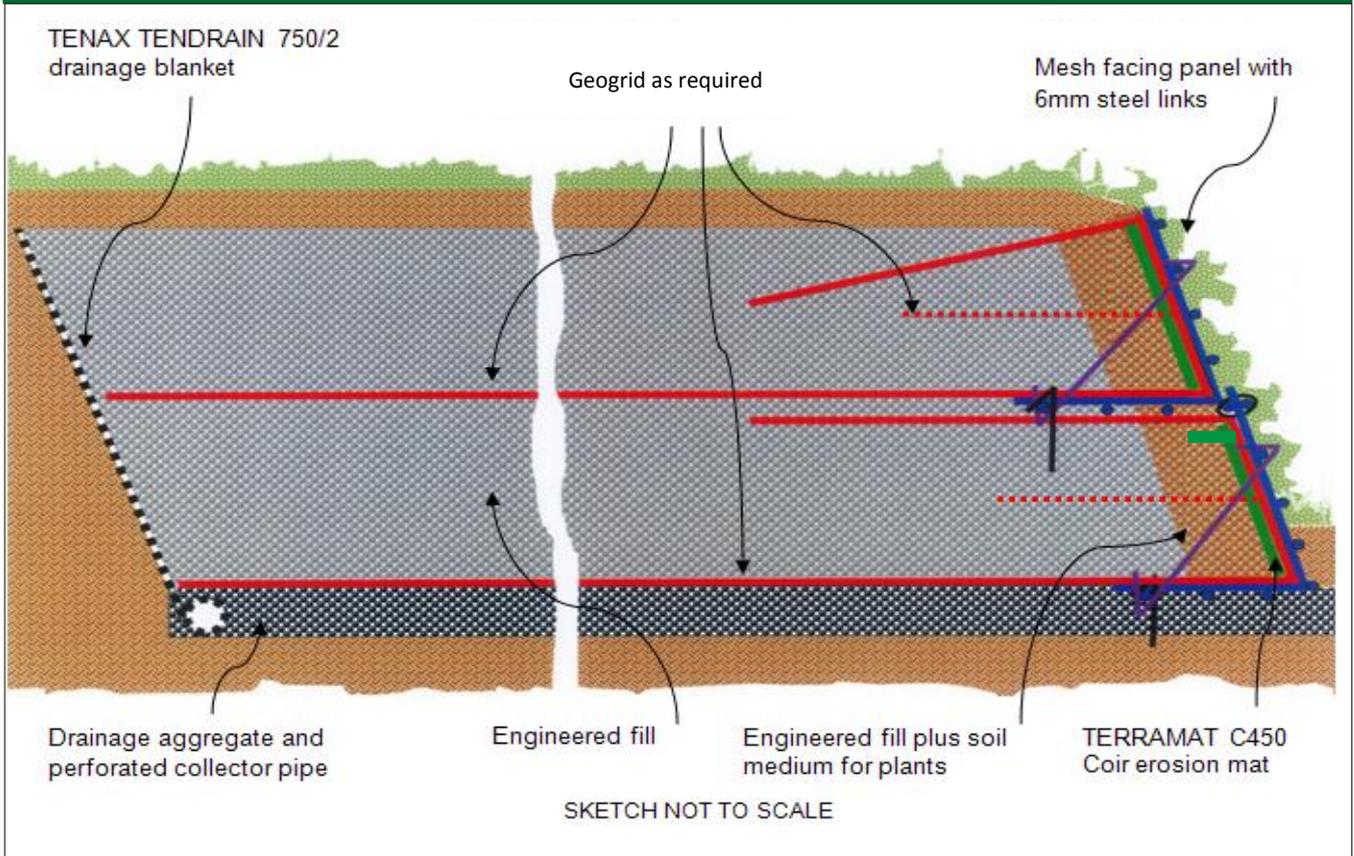
### TYPICAL PANEL MESH OPTIONS

MESH SIZES			
Mesh code	Mesh size	Wire dia.	Mesh sheet size
338	75mm x 75mm	4.0mm	2400 x 1200mm 4560 x 1970mm
333	75mm x 75mm	6.3mm	2400 x 1200mm 4560 x 1970mm
664	150mm x 150mm	6.0mm	2400 x 1200mm 4560 x 1970mm
661	150mm x 150mm	7.5mm	2400 x 1200mm 4560 x 1970mm
Other mesh size / configurations available Typically steel grade is 575 MPa min. tensile strength			

### GENERAL NOTES

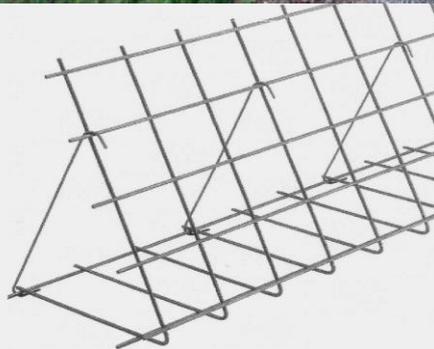
- 1) Panels supplied in plain steel or hot dip galvanised after fabrication.
- 2) Panels typically supplied in 2.4 metre lengths but can be supplied in lengths to suit.
- 3) Panels supplied folded to the design face angle / slope.
- 4) Typically the foot of the panel is approx. 2/3<sup>rd</sup> the height of the face lift.
- 5) Panels held true to line during construction with 6mm steel ground pins.
- 6) Panel face held true to line and face angle with 6mm dia. galvanised steel links.
- 7) Adjacent panels are secured to each other at all margins with 'C' rings or gabion tie wire.
- 8) **See installation document for more detail.**

## LIVING EARTH GREEN WALL SYSTEM DIAGRAMMATIC SKETCH OF TYPICAL ARRANGEMENT



## LIVING EARTH GREEN WALL™ INSTALLATION DETAILS

WELDED WIRE MESH FACING SYSTEM COMBINED WITH GEOGRID REINFORCED SOIL WALLS  
 PANEL TO BE USED WITH TENAX 'TT' OR HUESKER 'FORTRAC' GEOGRIDS



PANEL WITH HOOKED LINK RODS



GEOGRID DRAPED OVER PANEL



TERRAMAT BLANKET PLACEMENT



PLACING LINKS THRU TERRAMAT & GEOGRID



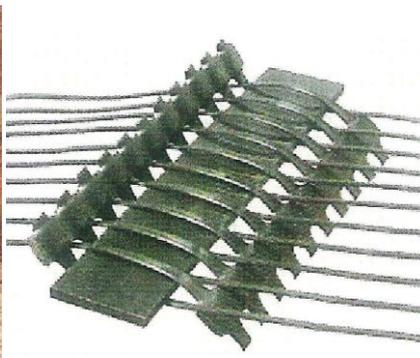
BATTER BOARD / SAFETY RAIL SYSTEM



HAND / PLATE COMPACTING FIRST 1.0m FROM FACE



DO NOT ROLLER COMPACT FIRST 1.0m FROM FACE



BODKIN JOINING TENAX 'TT' GEOGRID



LIVING EARTH GREEN WALL MITRED CORNER

TerraMat C450 coir mat cut to full size of face area, cut ends lapped 100mm min.

6mm hooked link rod linking both face and foot of panel

6mm x 300mm long steel hooked pins

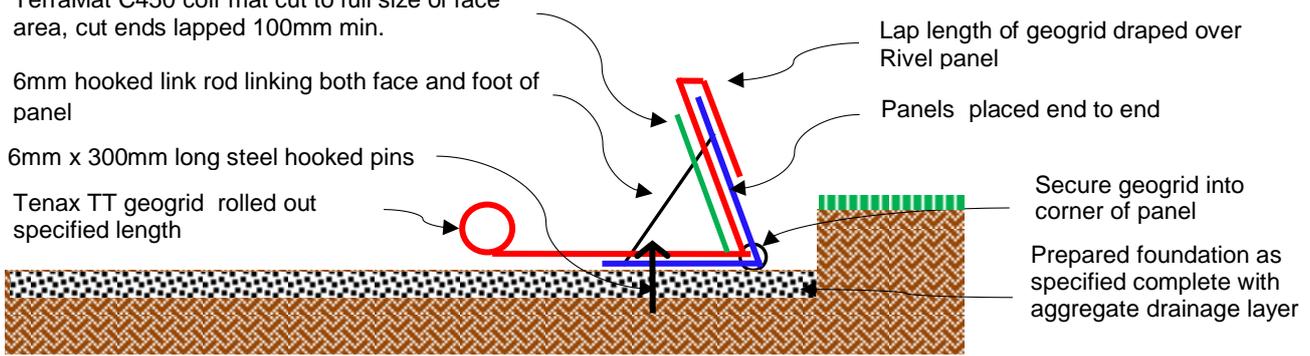
Tenax TT geogrid rolled out specified length

Lap length of geogrid draped over Rivel panel

Panels placed end to end

Secure geogrid into corner of panel

Prepared foundation as specified complete with aggregate drainage layer



- 1) Place panel true to line and level and pin down with two hooked pins equally spaced from ends. To assist in maintaining the line and slope of the wall face use a batter board system, particularly at curved walls
- 2) Hog ring adjoining panel vert. faces together at 150mm centres maximum.
- 3) Roll out geogrid perpendicular to wall face allowing for wall face plus lap length, drape lap length over top of panel.
- 4) Abut or 50mm lap adjoining widths of geogrid. **Gaps between adjoin widths are not accepted.**
- 4) Push geogrid into internal corner of panel and secure with three hog rings or cable ties per metre geogrid width.
- 5) Place TerraMat C450 coir mat and secure as necessary with hog rings thru geogrid to panel.
- 6) At the foot of the panel hook the link rods around the longitudinal bar and at the wall face slit the TerraMat as required to allow access for hooking of the link rod around the longitudinal bar  
Place link rods at  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  points across width of the 2.4m long panel, typically links placed at a 45° angle.

### PANEL STEP 'A' : SET-UP OF FIRST LIFT

not to scale

Compacted fill material all as specified

Tenax Tendrain 750/2 drainage blanket at cut face with perforated pipe collector and aggregate drainage layer

Anchor geogrid

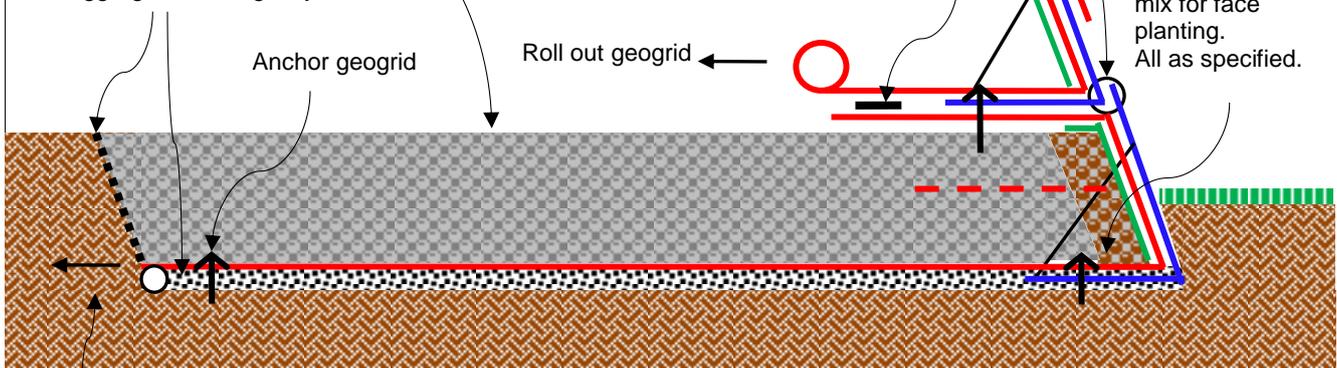
Second lift and subsequent lifts set-up as STEP 'A' above.

Geogrid lap length typically 1.5m or alternatively 0.8m when joined to next geogrid layer with a bodkin

Hog ring upper panel to lower panel with rings at 150mm centres

Compacted soil and fill material mix for face planting. All as specified.

Roll out geogrid



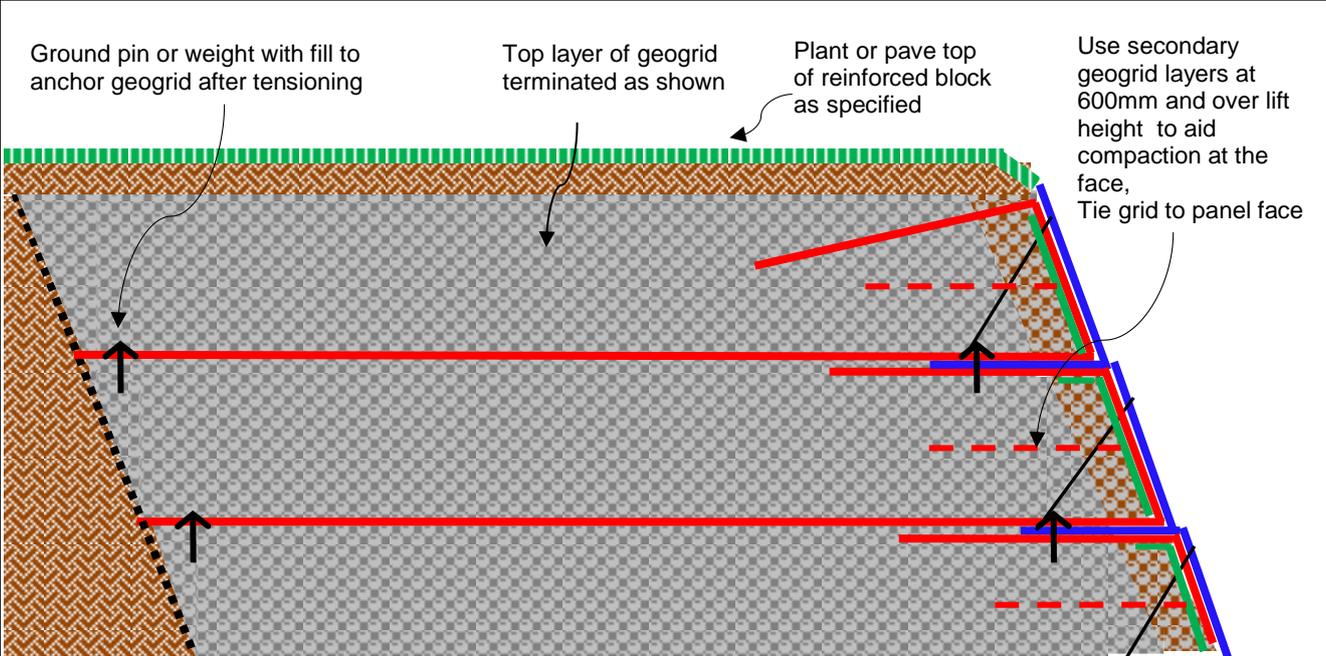
Tension geogrid

Geogrid tail length as specified

- 1) Roll out the geogrid at **right angles** to the wall face with 0 to 50mm side lap to adjacent geogrid runs.
- 2) Lightly tension the geogrid using a steel garden rake or fork to remove all folds and wrinkles.
- 3) Secure the free end of the geogrid with pins or anchor / weight the end with the specified fill dumped on the geogrid.
- 4) Place and pin the Tenax drainage blanket to the cut face and place the perforated pipe collector with a filter sock wrap.
- 5) Place and compact the MSE fill material maintaining a minimum of 150mm cover to the geogrid.  
**Do not** drive directly over onto the exposed geogrid with wheeled or tracked vehicles.  
**Do not** push the MSE fill material out across the exposed geogrid, cascade the fill material onto and over the exposed geogrid.
- 6) Place and compact the MSE and wall face planting fill material to the required standard and build up in lifts of typically 150 to 200mm thick
- 7) Turn back the geogrid lap length over the compacted fill
- 8) Place the next lift of panel ensuring the geogrid lap length is taught then pin and hog ring the panel as STEP 'A'.
- 9) Hog ring the upper panel to the lower panel at 150mm centres maximum along the wall face.
- 10) Repeat the above steps 'A' and 'B' until the final lift is reached then proceed as step 'C' below.

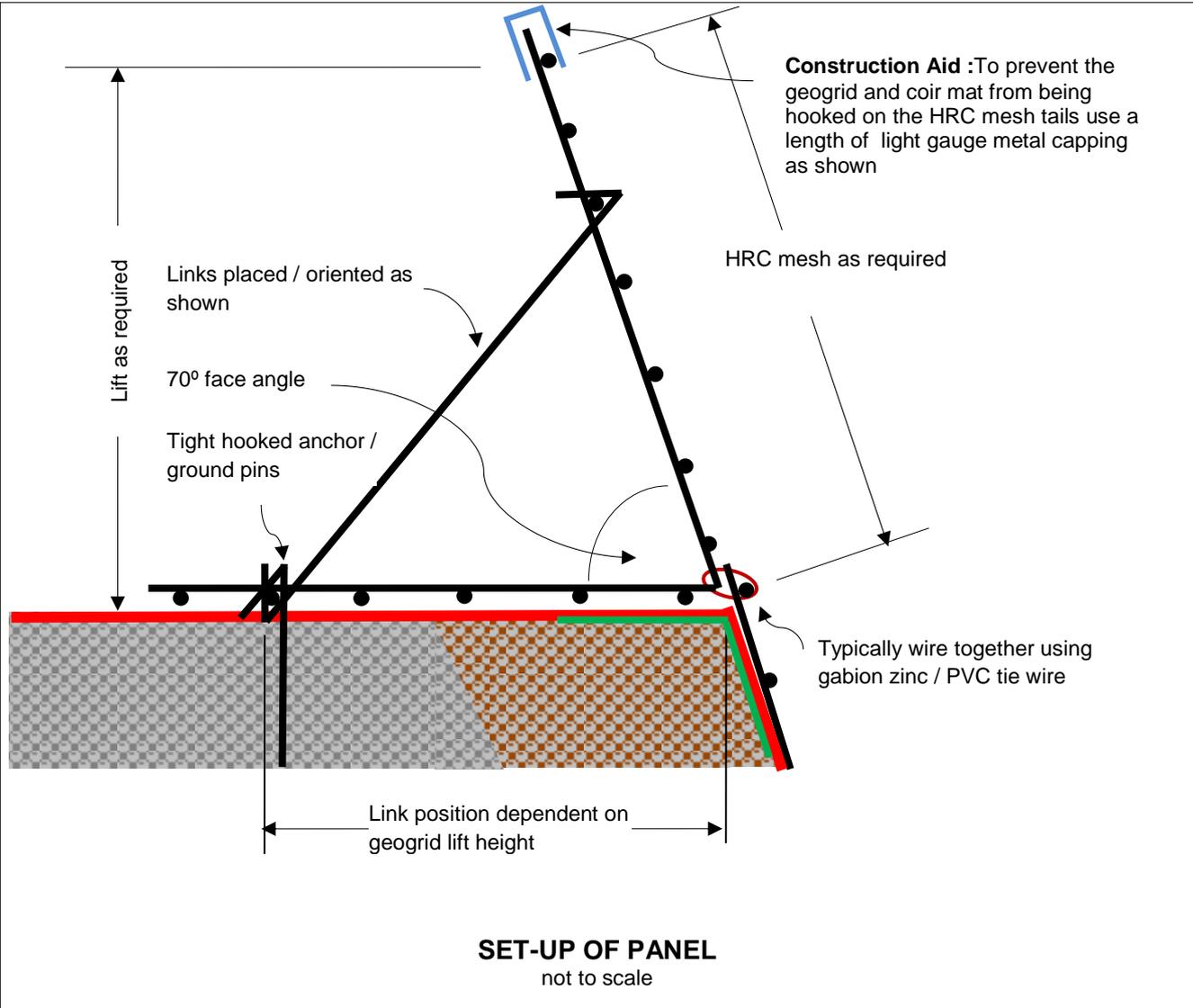
### PANEL STEP 'B' : SET-UP OF SECOND AND SUBSEQUENT LIFTS

not to scale



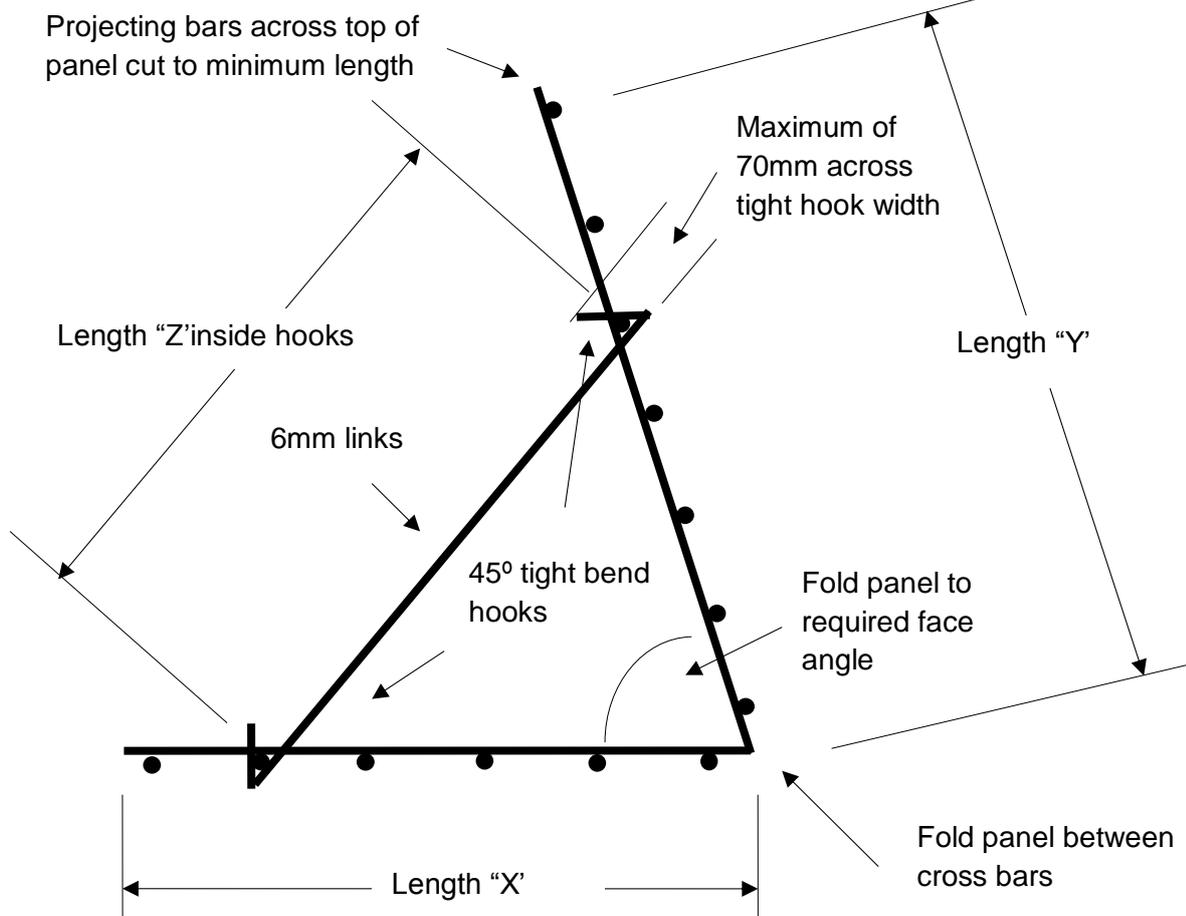
- 1) Terminate the geogrid by turning down the lap length 300mm minimum below grade
- 2) Finish the top surface of the reinforced block as specified.

**PANEL STEP 'C' : FINISH AT FINAL LIFT / CREST OF WALL**  
not to scale



**SET-UP OF PANEL**  
not to scale

## PANEL MANUFACTURING DETAILS



### PANEL CROSS SECTION : TYPICAL ARRANGEMENT

Panels typically 2.4 metres long

All components after fabrication to be (A) hot dip galvanised or (B) left as raw steel

Number of panels req.

Mesh size :

Length X :

Face angle :

Length Y :

Number of links req.

Length Z :

Finish galv. or raw

Geotech Systems Order # .....

Project .....

Contractor .....

Delivery Address .....