

PRECAST COMPOUND WALL

VME's solution
for Construction of
Compound wall Using
Precast concrete element



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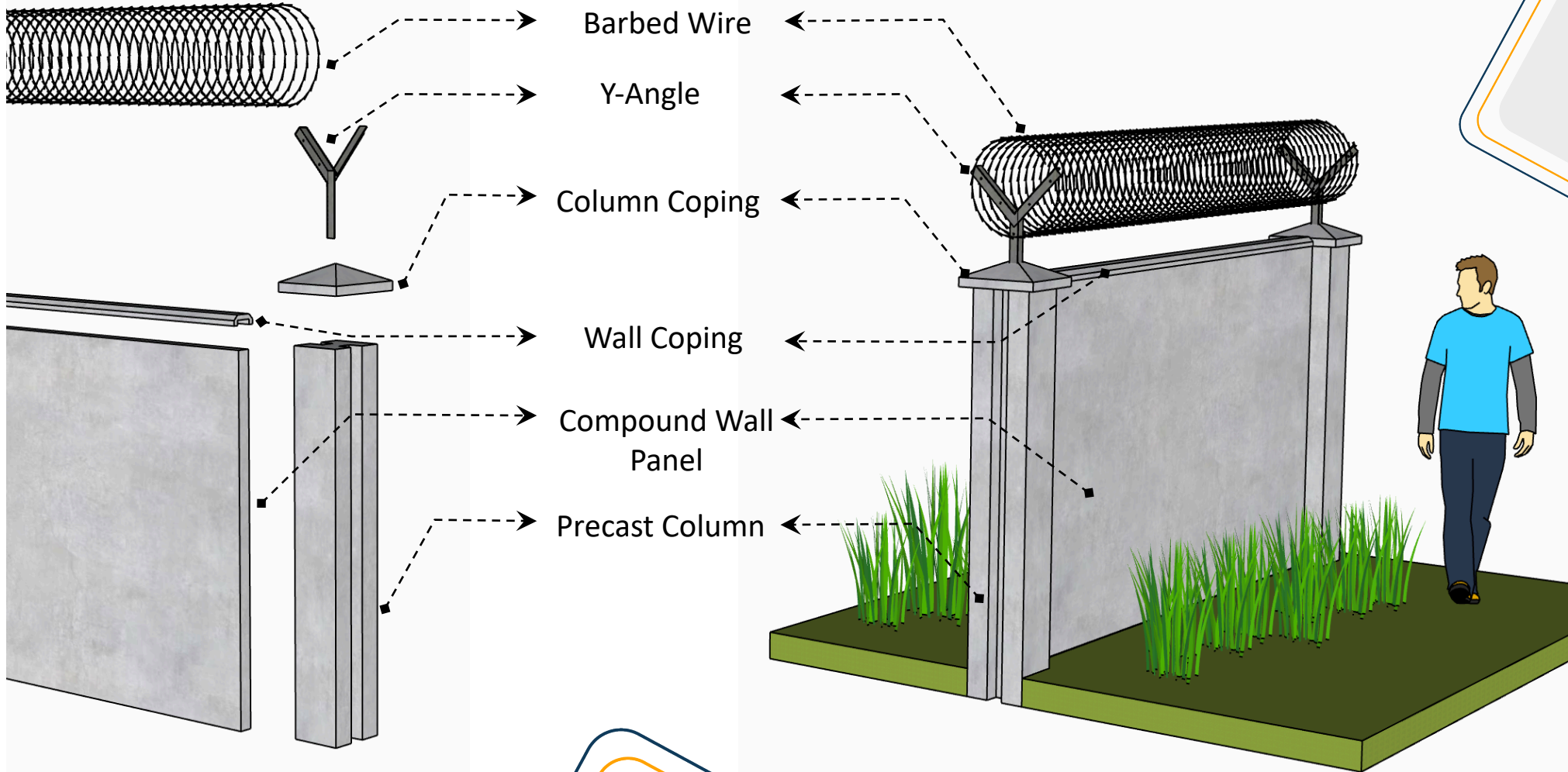
VME's Boundary / Compound Wall is a simple DIY (Do It Your Self) product. Compound wall is a basic need for any property to protect the land as well as structures built on the land.

Today, the land owners are having an option of going for precast systems in addition to the conventional systems of construction. Conventional system takes long time to build and is expensive considering the availability of skilled labour.

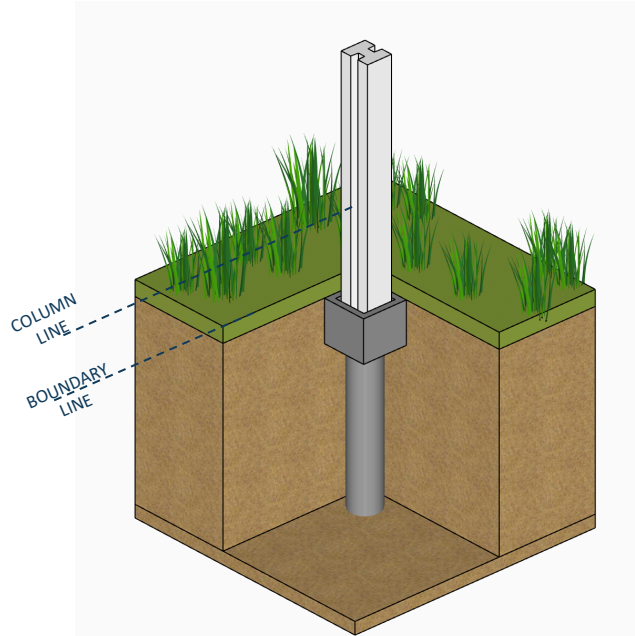
In precast construction system, the elements are casted at the factory in closed environment under quality supervision using state of the art machineries. The finished elements are transported to the site and erected.



Components of Compound wall

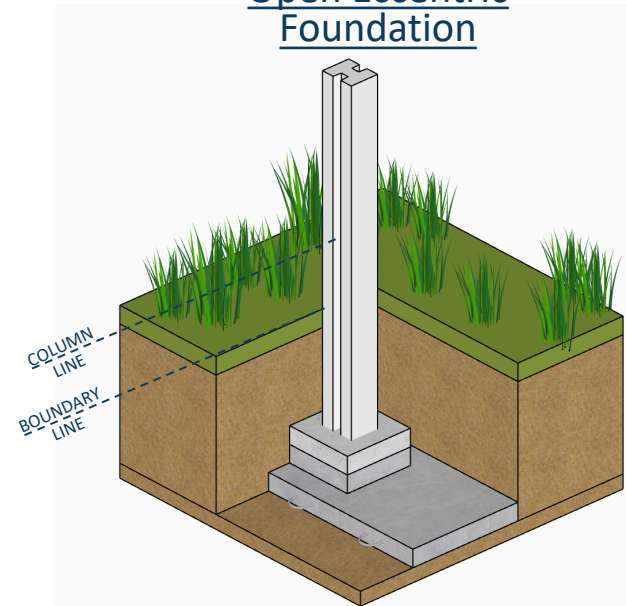


Pile Foundation



- Suitable for areas having very poor soil for considerable depths where Open Footings are not possible.
- Grade of Foundation Concrete is **M25**

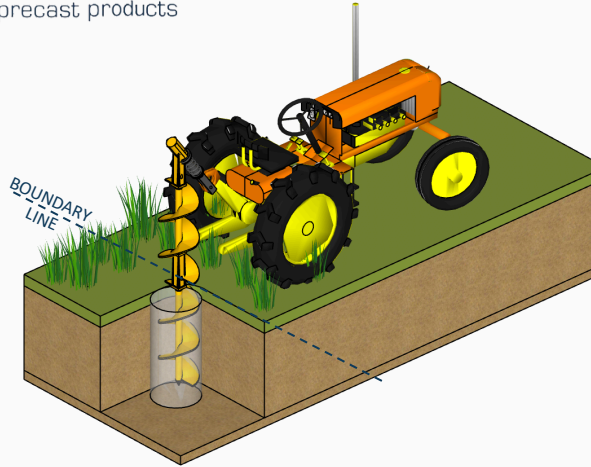
Open Eccentric Foundation



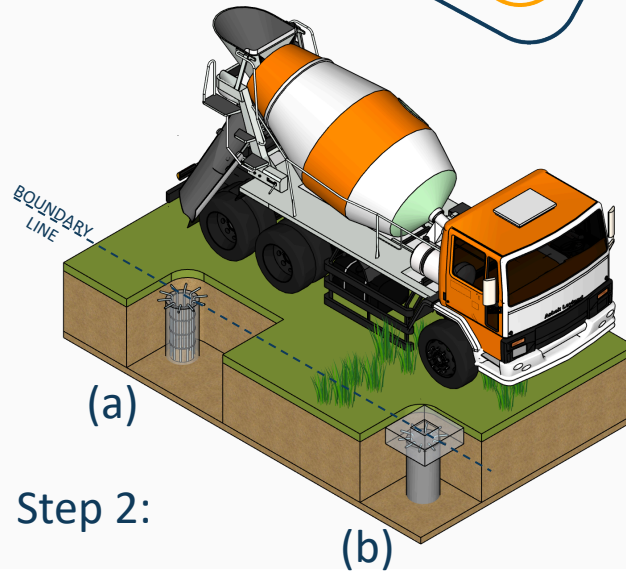
- Eccentric footing to keep the foundation within the site boundary
- Grade of Foundation Concrete is **M25**

Note:

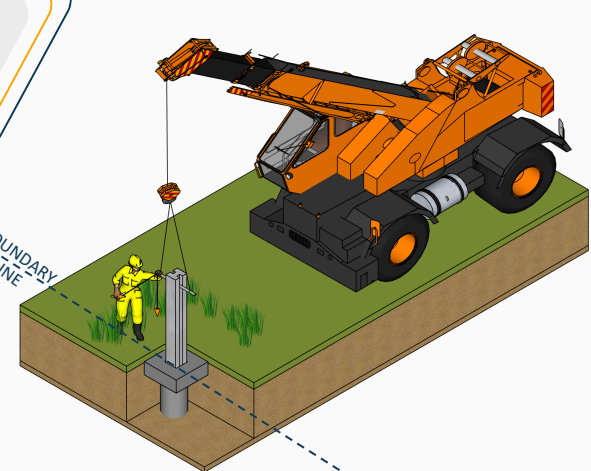
- Foundations depth is based on soil condition.



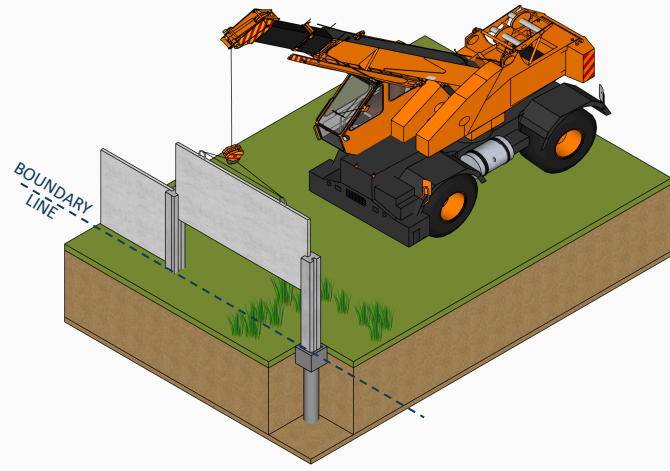
Step 1:



Step 2:



Step 3:



Step 4:

Pile
Foundation

Step 1: Boring for Pile

Step 2: Concrete Filling

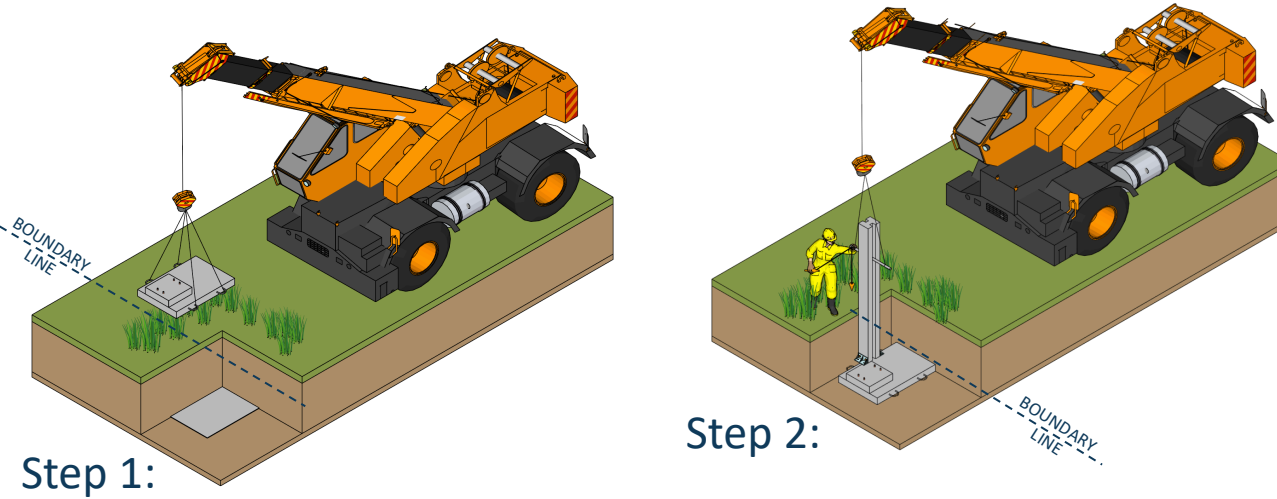
(a) Placing
Reinforcement cage
and Concreting.

(b) Construction of Pile
cap

Step 3: Column Erection

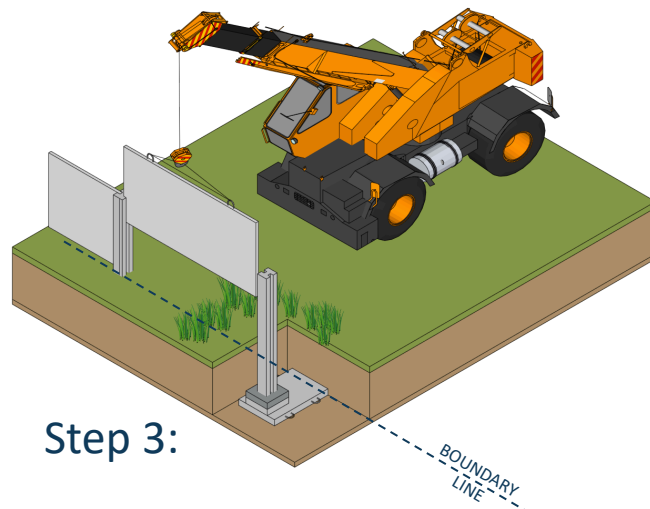
Step 4: Wall Erection

Open and
Non-Eccentric
Foundation



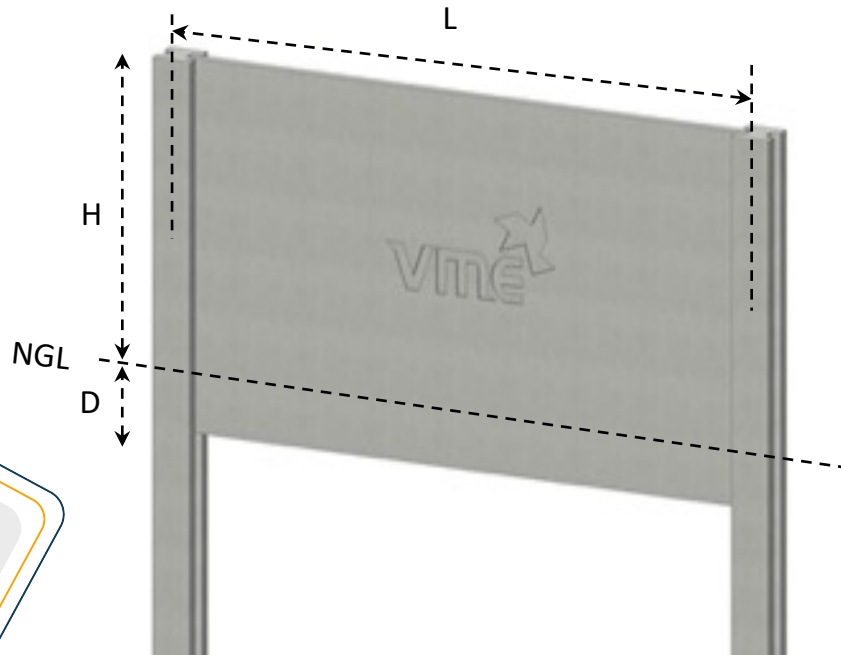
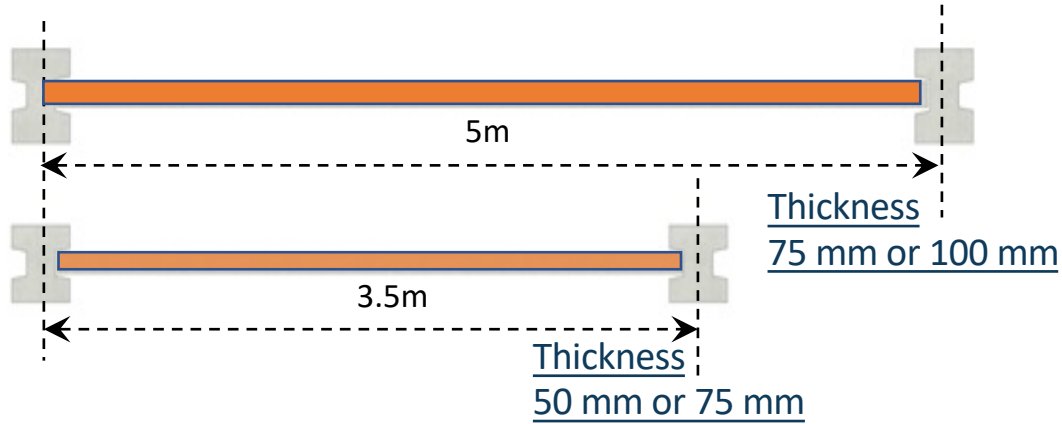
Step 1: Excavation & Base
Course Concrete –
Erection of Footing over
the base concrete

Step 2: Column Erection



Step 3: Wall Erection

Plan View

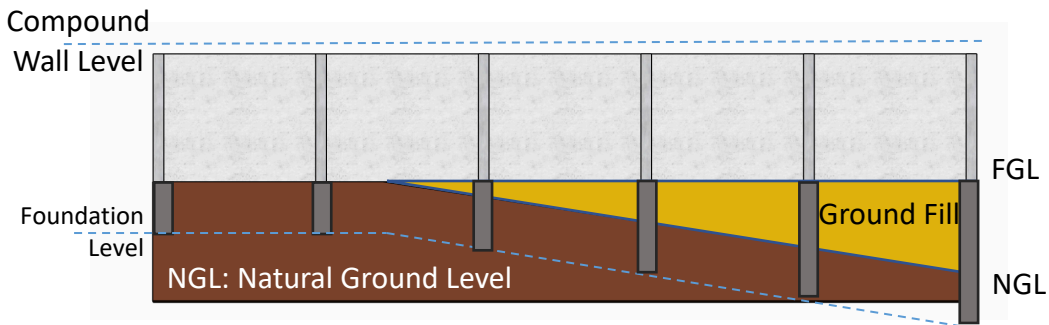


SPAN		WALL DIMENSIONS		
LENGTH "L"	Wall Thickness	Height above NGL "H" (Meters)	Height Below NGL "D" (Meters)	Total wall height (Meters)
3.5 m	50 mm	1.80	0.30	2.10
		2.40	0.30	2.70
	75 mm	1.80	0.30	2.10
		2.40	0.30	2.70
5.0 m	75 mm	1.80	0.30	2.10
		2.40	0.30	2.70
	100 mm	1.80	0.30	2.10
		2.40	0.30	2.70

Note:

- Span will be decided based on Wind Load Condition.

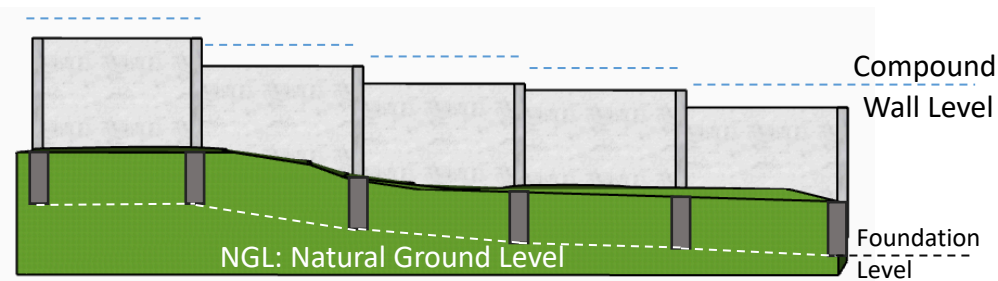
Site with levelled (Actual / Filled) surface



Depth of the foundation will depend based on Land fill.

Levelled Site

Site with Gradients (Sloped surface)



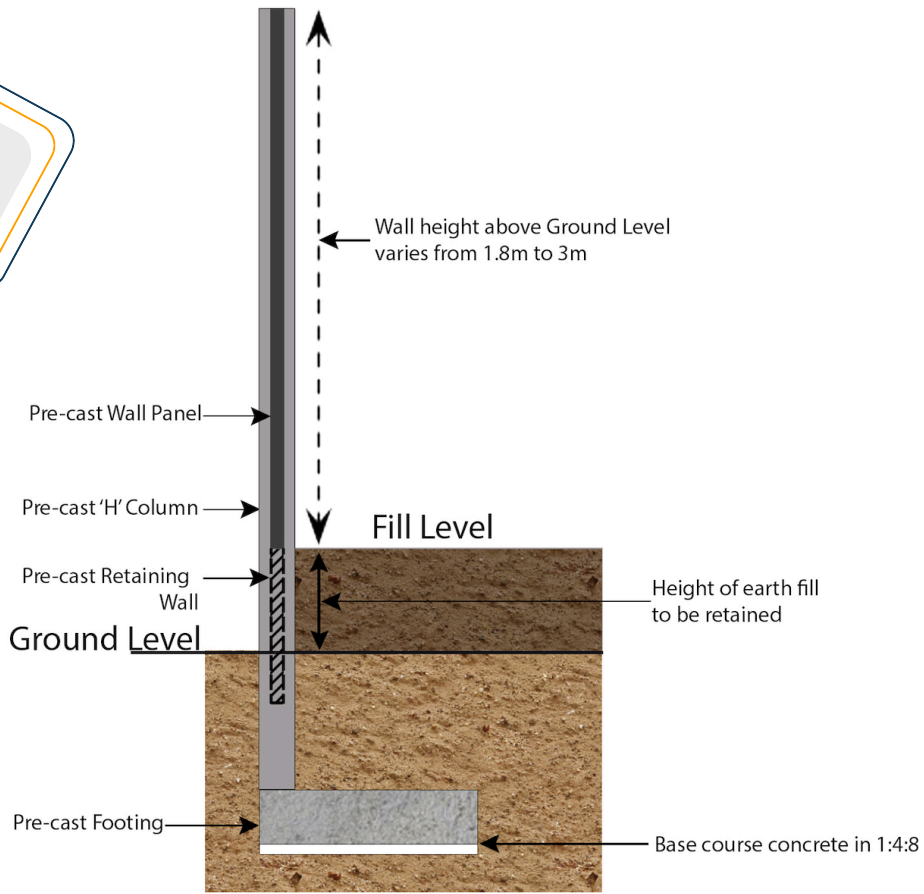
Depth of the Foundation will remain constant

Contour Site

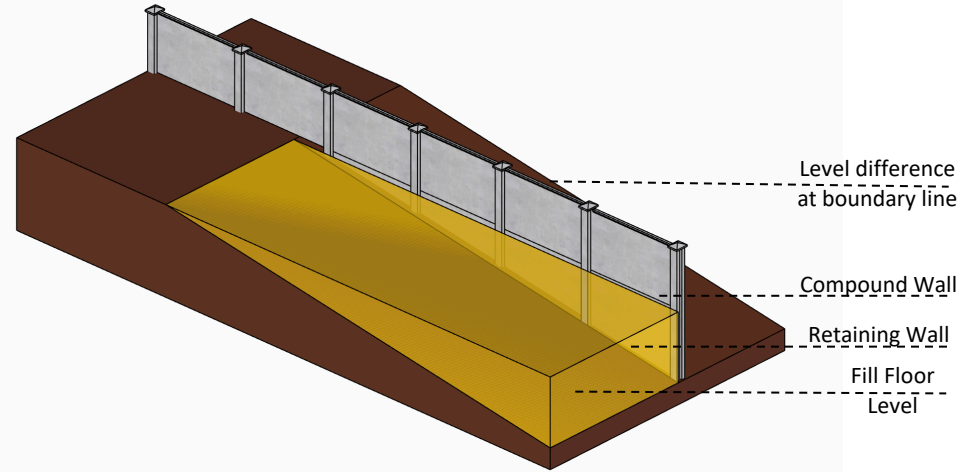
Note:

- Height of the column will depend based on Land Topo Condition.

Retaining wall

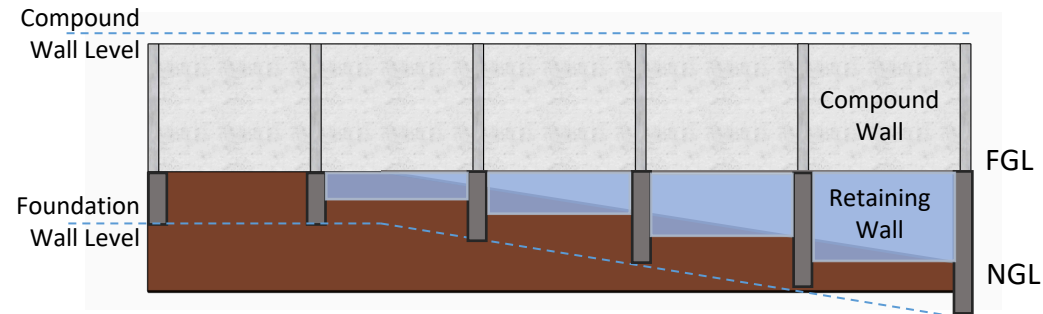


Contour Site
View of Retaining Wall



Retaining wall at areas of level difference at boundary line

Retaining wall Level



Height of the foundation will depend based on Land fill.

Levelled Site

Note:

- Height of the Retaining wall will depend based on Land fill level.

Material Specifications

- Precast Column – **M40**
 - Precast Compound Wall, Precast Footing, Precast Pedestal – **M40**
 - Column Coping and Wall Coping - **Ferrocement**
-

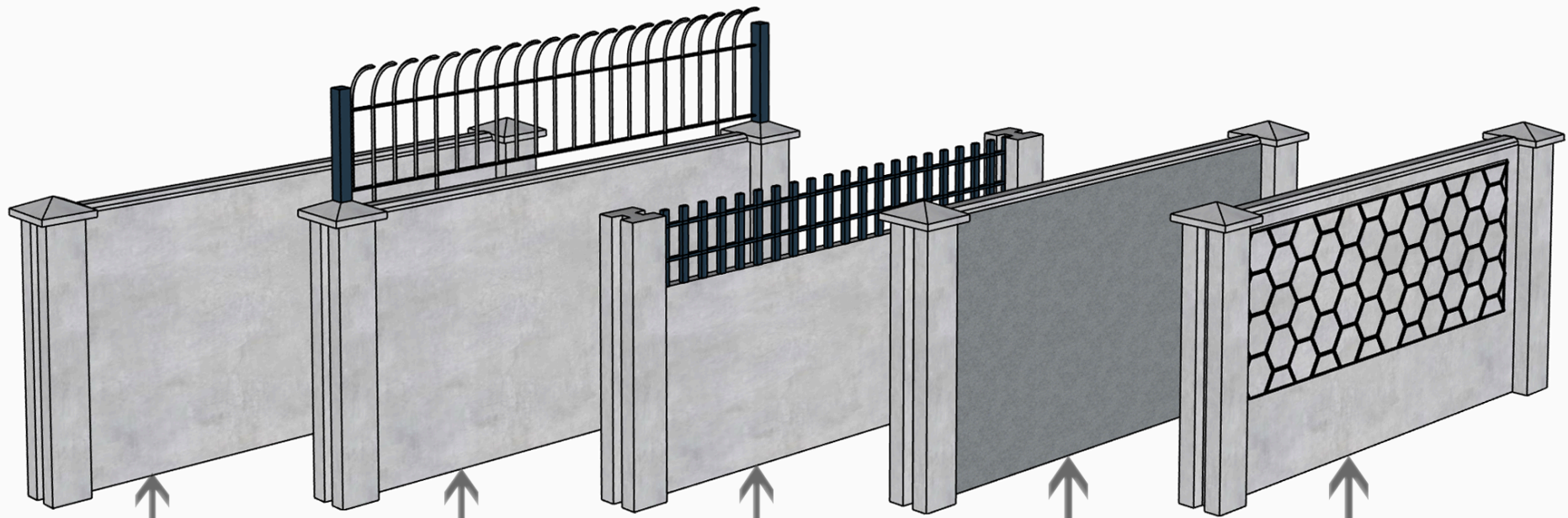
Design Based on

- **IS: 6006 - 1983** - Specification for Uncoated Stress relieved Strand for Pre-Stressed Concrete
 - **IS: 1343 – 1980** -Tensile Stress of Concrete, Elastic Deformation, Sections Uncracked in Flexure, Partial Safety Factors for loads.
 - **IS: 875 – Part 3** - Wind load
-

Design Considerations

- **Foundation : Soil Condition and Wind Load**
- **Precast Column : Soil Condition and Wind Load**
- **Precast Compound Wall : Wind Load**

Different types of Options



Compound wall
With coping

Compound wall
With coping & grill

Compound wall
With grill

Compound wall
Customizes Surface
(polished concrete surface)

Compound wall
Custom Design
(Honeycombed surface)

Coping

Coping & Grill

Grill Only

Custom Surface

Custom Design



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