

# Precast RC **L-SHAPE** **RETAINING WALL**

### Features:

- LTH Precast RC L-Shape Retaining Wall are available height from 900mm to 3600mm and the standard length is 1 meter.
- LTH Precast RC L-Shape Retaining Wall not only used as retaining wall but feasibly used as main drain (open drain) and temporary or permanent stockpile. Please contact our Engineering Department to confirm the application of LTH Precast RC L-Shape Retaining Wall.
- Weepholes are provided to release hydrostatic pressure behind wall and acting as lifting hole for easier unloading an installation activity.

### Jointing:

- LTH Precast RC L-Shape Retaining Wall used butt joint and if necessary, cement-sand mortar use to fill the gap between unit.

### Stacking:

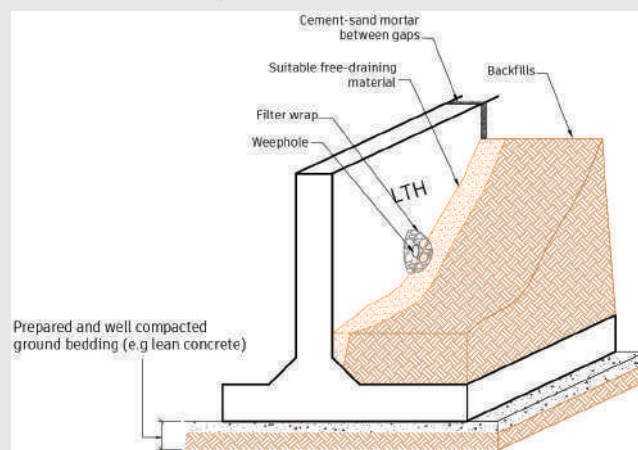
- LTH Precast RC L-Shape Retaining Wall shall be stacked on uniformly leveled ground at site.

### Laying:

- LTH Precast RC L-Shape Retaining Wall should be laid on prepared and leveling bedding (e.g compacted soil, lean concrete) to ensure uniform support distribute under base. Engineer (by others) should ensure allowable bearing capacity soil before laying the unit to avoid settlement.

### Backfilling:

- Earth backfills with selected free draining material are most suggested. Filter wrap at weepholes are most recommended to release hydrostatic pressure.

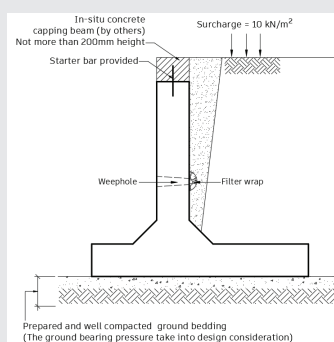


Recommendation of laying, jointing and backfilling of LTH Precast RC L-Shape Retaining Wall (cross-section view)

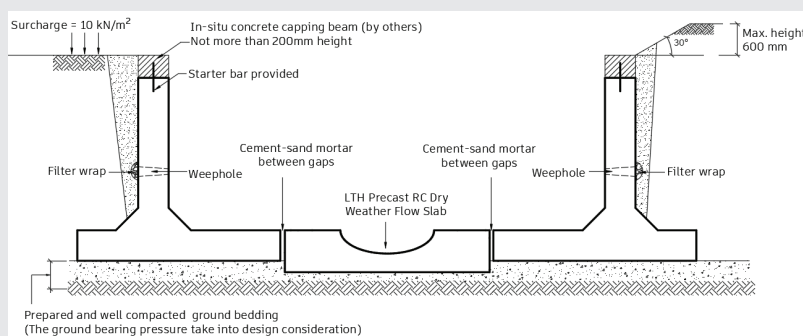
### Design Consideration:

- LTH Precast RC L-Shape Retaining Wall are designed to the requirement of BS 8110: 1997 and BS 8002 : 1994.
- Concrete cover is 30 mm.
- Characteristic strength of concrete,  $f_{cu}$  is to be 40 N/mm<sup>2</sup> at 28 days and characteristic strength of steel reinforcement,  $f_y$  is to be 460 - 500 N/mm<sup>2</sup>.
- Bulk density of soil is to be 19 kN/m<sup>3</sup> with internal friction angle,  $\Phi$  is 30° and active pressure coefficient factor,  $k_a$  is to be 0.333.
- Maximum live load (surcharge) is to be 10 kN/m<sup>2</sup> or equivalent to earth filling less than 600 mm height.
- LTH Precast RC L-Shape Retaining Walls are designed for the standard load condition as shown below:

- LTH Precast RC L-Shape Retaining Walls type 1 are the most stable wall with earth backfill place on the heel side (longer base) to reduce sliding force from soil.
- Type 2 and 3 are normally used for main drain or open drain more than 3600mm width with LTH Precast RC Dry Weather Flow Slab.
- Type 2 is for surcharge 10 kN/m<sup>2</sup> and type 3 for over backfill height not more than 600mm and slope angle less than 30° are permitted.
- We able to produce L-Shape Retaining wall type 2 and type 3 with earth backfill place on shorter base, however RC shear key are advisable to cast in-situ (by others) to reduce sliding force from earth backfill.
- For other loading conditions or L-Shape Retaining Wall sizes, please contact Engineering Department for special design.



Loading Type 1

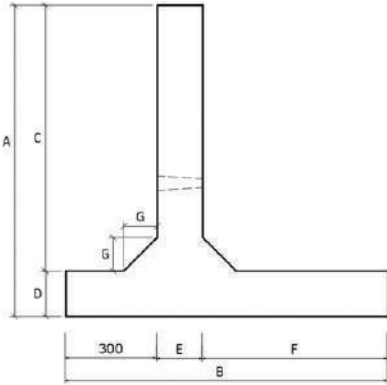


Loading Type 2

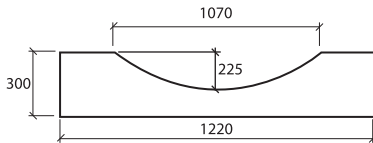
Loading Type 3

# LTH Precast RC L-shape Retaining Wall

## DIMENSION OF L SHAPE RETAINING WALL



A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight tonne
900	1000	800	100	100	600	110	0.461
1200	1000	1100	100	100	600	110	0.533
1500	1300	1400	100	100	900	110	0.677
1800	1600	1650	150	150	1150	110	1.199
2100	1900	1950	150	150	1450	110	1.415
2400	2300	2250	150	150	1850	110	1.667
2700	2300	2500	200	200	1800	110	2.333
3000	2300	2800	200	200	1800	110	2.477
3600	2300	3350	250	250	1750	110	3.419
3600	2300	3300	300	300	1700	110	4.061



## LTH Precast RC Slab with DWF

Use together with LTH Precast L-Shape Retaining Wall (Type 2 or Type 3)

