

PRECAST CABLE TRENCHES

VME's solution
For Cable Trenches Using
Precast concrete element



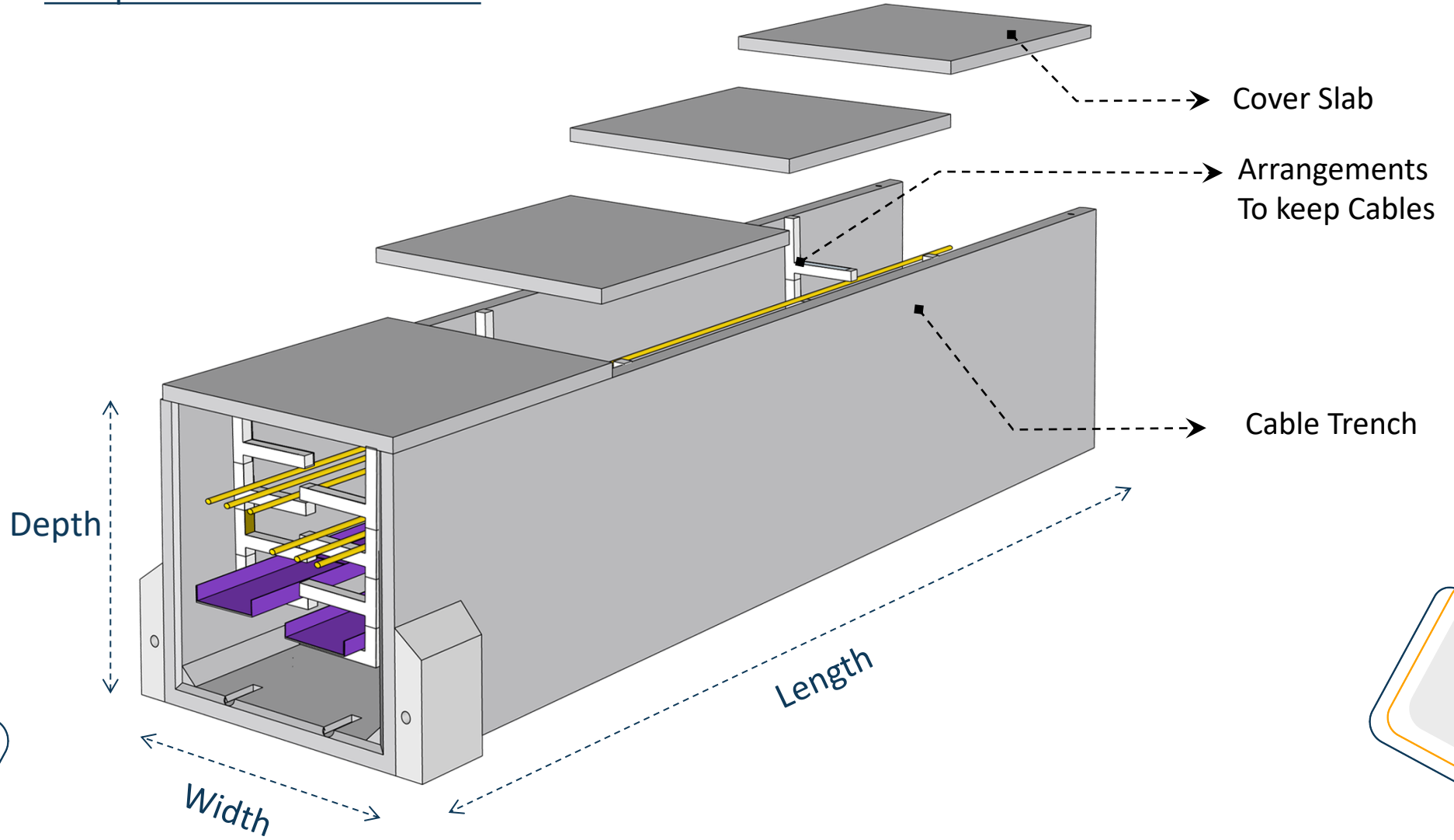
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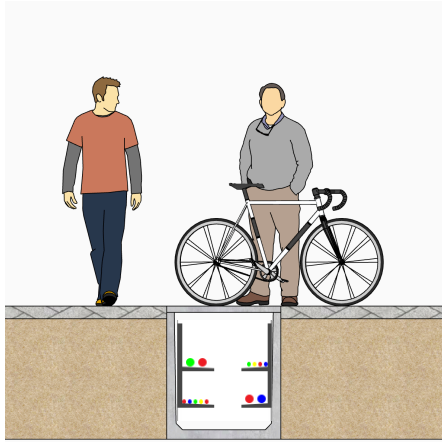
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- Cable trenches are available in wide range of sizes starting from 600mm to 1200mm in width and 600mm to 1200mm in height. These trenches can be used for indoor and outdoor applications. They come with cover slabs, which are designed for various load conditions.
- These are factory made, casted in a closed environment, having superior quality and well suited for fast paced construction.

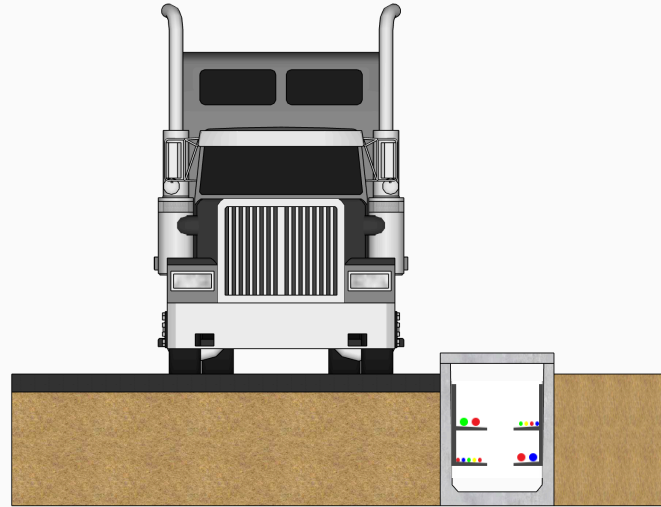


Components of Cable Trench

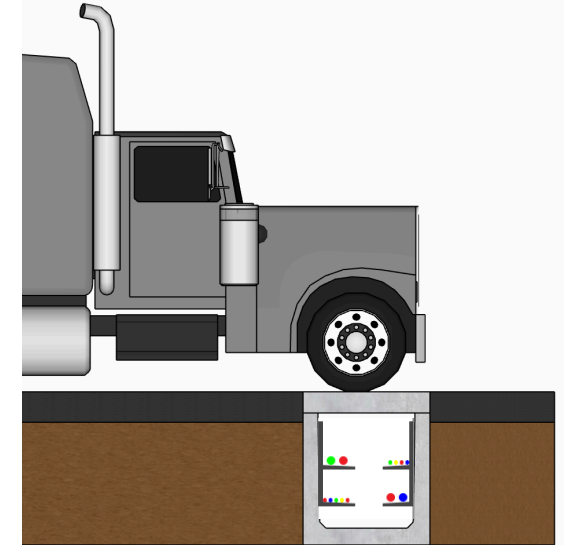




Light Duty Trenches
-50 mm Thick (Only
Pedestrian Load)



Medium Duty Trenches
-75 mm Thick (Pedestrian Load
& Live Load Surcharge)



Heavy Duty Trenches
-110 mm Thick (Heavy
Vehicular Load)

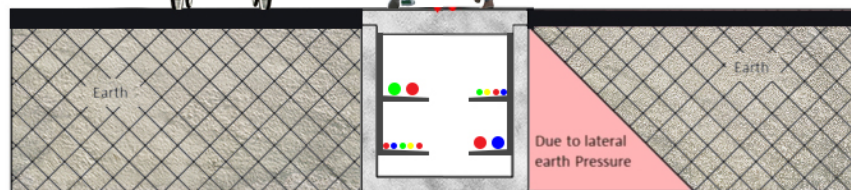
Standard Sizes of Trenches

- Width : 0.6m, 0.75m, 0.9m, 1.0m, 1.2m
- Depth : 0.6m, 0.75m, 0.9m, 1.0m, 1.2m
- Length : Normally 6 m (Also variable based on project requirement)

Customized sizes are based on order volumes

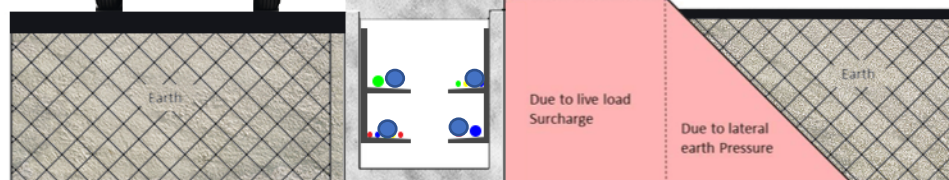
Standard Cover Slab thickness

- Medium Duty : 50mm
- Heavy Duty : 170mm



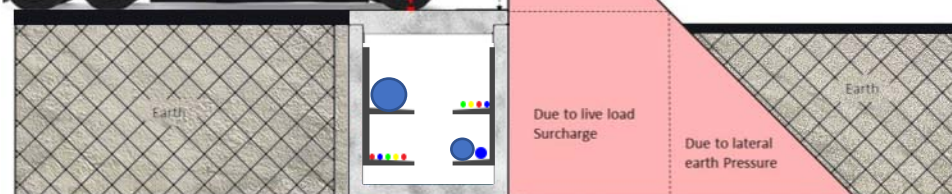
LIGHT DUTY

1. Lateral Earth Pressure on side walls
2. Pedestrian Load over the Cable Trenches



MEDIUM DUTY

1. Lateral Earth Pressure on side walls
2. Live Load Surcharge for an Equivalent Height of 1.2 m Earth Fill



HEAVY DUTY

1. Lateral Earth Pressure on side walls
2. Live Load Surcharge for an Equivalent Height of 1.2 m Earth Fill
3. Heavy Vehicular Load over the Trench

*Weight of cable also will be taken into consideration

MATERIAL SPECIFICATION

- Concrete : Grade 40 to Grade 45
- Steel : Fe500
- Nominal cover : 25mm

REQUIREMENTS

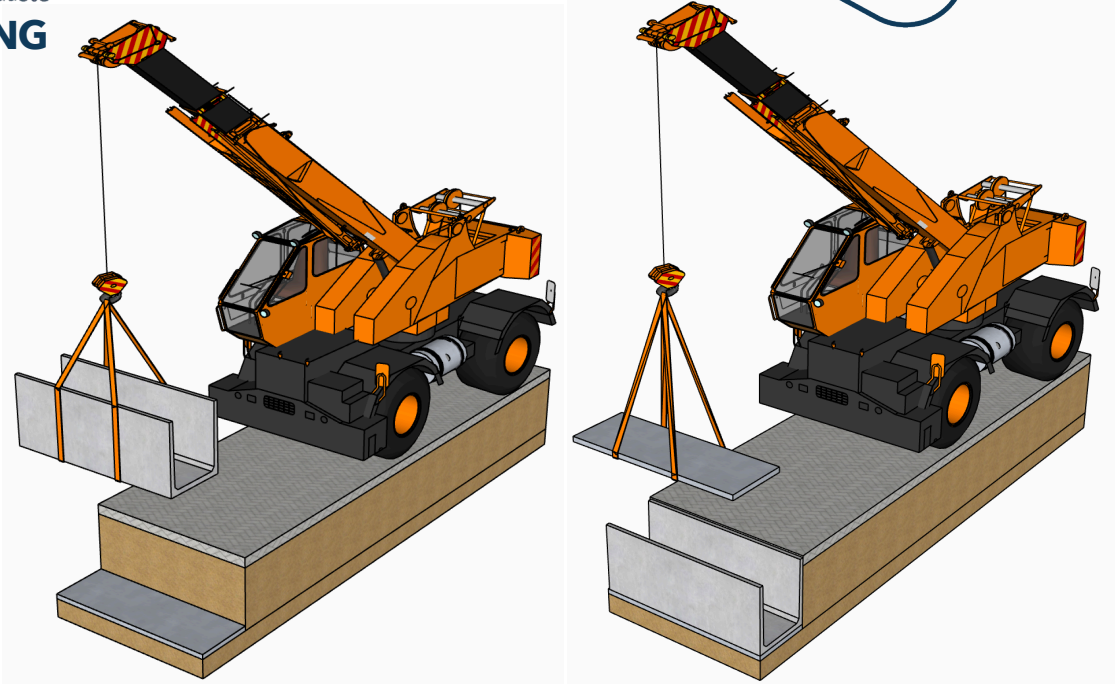
- Density of backfill soil should be minimum 18 Kn/m^3
- Backfill material adjacent to side wall should be of granular type
- Backfilling and compaction to be performed layer by layer alternatively on either side of the trench until the top of the trench.

DESIGN CRITERIA

Structural design of the Cable Trenches are in accordance to:

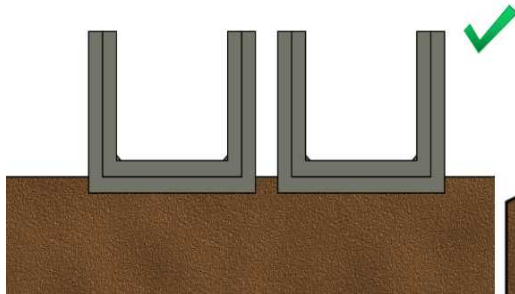
BS 5400 : Part 4 : 1990 | BD 31/01 | MS 1293 : Part 1 : 1992

IRC 6 – Cl 214.1.1.3 | IS 456 : 2000

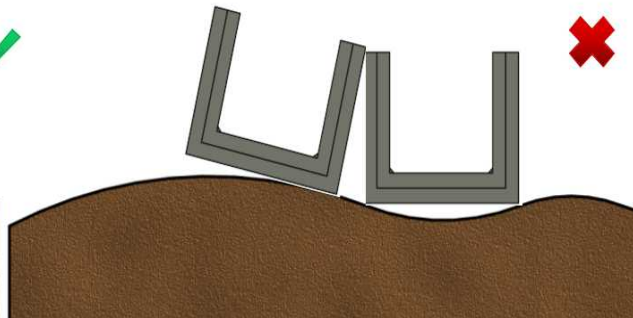


STACKING

Trenches stacked on leveled ground with gaps in between the products



Trenches stacked on uneven ground with trenches leaning on one another



LIFTING

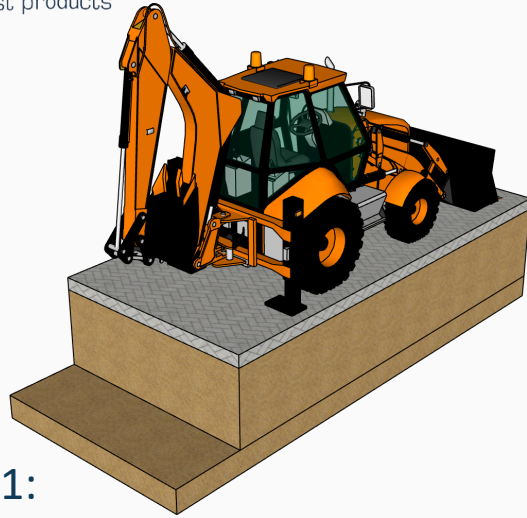
Lifting Hooks are provided for lifting by a crane.

STACKING

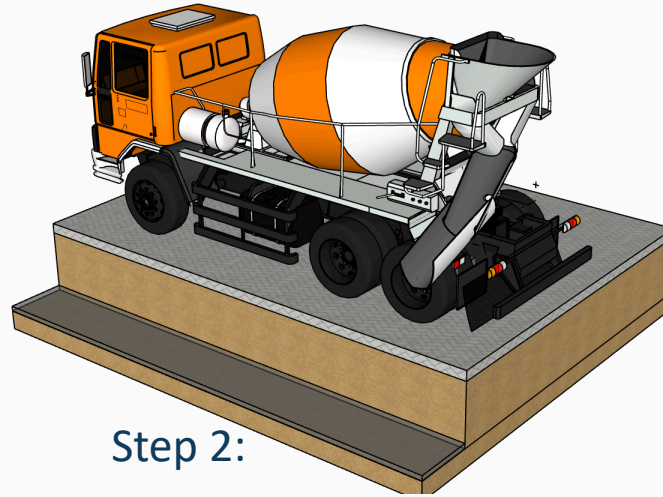
Trenches are supposed to be kept on level and stable ground or timber bearer to avoid cracking due to undesired localized load.

Trenches are to be laid on a layer of well compacted granular soil and there should be no settling of soil.

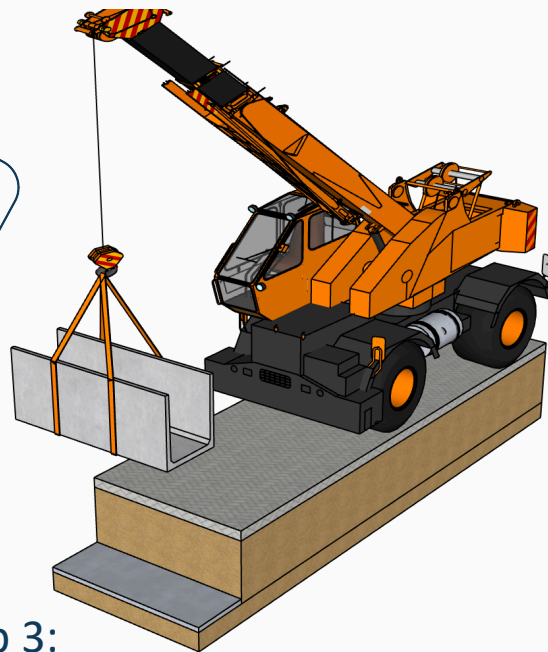
For a cushioning effect and to level, it is better to put a layer of quarry dust.



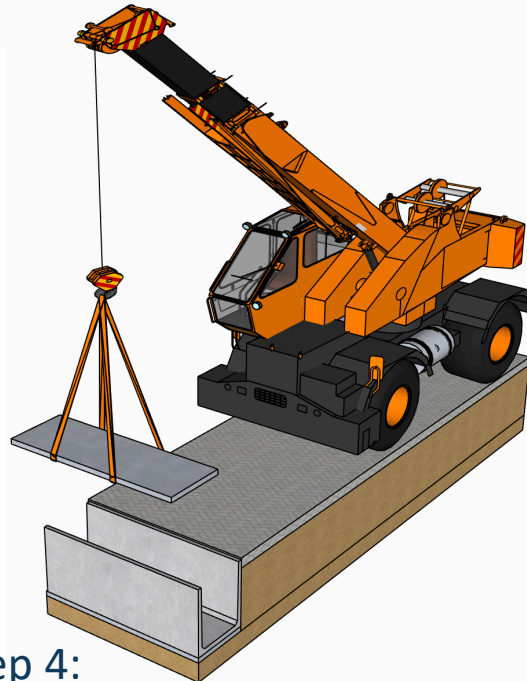
Step 1:



Step 2:



Step 3:



Step 4:

Erection Methodology

Step 1: Excavation

Step 2: Laying PCC Bed of
75mm

Step 3: Precast Cable Trench
will be aligned along
the line of scope.

Step 4: Cable Trench Cover
Slab will be Placed



Truck Unloading



Base Preparation



PCC Filling



Laying



Jointing



Laying Cover Slab

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