METHOD STATEMENT OF PILING WORK
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Method of statement of piling work
1. **General purpose**

The main objective of this method statement is to establish a systematized procedure of piling work to be applied in above mentioned.

2. **Scope of work**

This method shall cover all activities associated with the pile pressing work at site, from transporation pile period till checking for complete driving period.

3. **Work procedure**

3.1 **Transporation and unload piles at site**

According to location and transporation conditional at site, pile will be delivered by transporter from the casting yard.

On transporation period, piles arrangement shall be less than 5 layer. The wooden support beam of pile shall be at lifting position which has pre-mark at factory as shown.
3.2. **Pile checking at the site**

Before unloading piles, the site inspection shall be done.

The following item shall be inspected:
- Project Name
- Pile’s ID number
- Date of manufactures
- Concrete strength at delivery time (normally it’s strength of at least 7 days age of concrete)

Checking method:
- Visual check
- Measuring tape
- Document attach
- Approved Inspection procedure

Piles after pass these check will be use for driving.

3.3 **Unload piles at site**

Unload pile is strictly follow site’s safety regulation.

*Unload piles at freight yard*

Piles arrangement as layer, each layer shall be placed on appropriate sleepers under lifting position which has pre-mark at factory as shown. Material support are sand bag or timber and wedge.

*Unload piles at working place*

To convenience, piles will be placed on the ground directly; however, must avoid the cracking in the middle of piles by the way to put it in the flat ground.

Unloading piles as follow
3.4 **Marking the length of piles**

Depend on the request of Consultant (or Owner), piling worker will mark on the piles body about 50 – 100 cm to confirm the length by chalk or paint.
3.5 **Sequence of pressing**

Carry out pressing work after passing all the requirement of piles checking and location.

Requirement of piles locating as follow:

- Piles survey point are located at site, passed inspection and got acceptance of Consultant (or Owner) for construction.
- Site plan is fairly flat, enough space for operating equipment.
- Ground is stable, not sink or muddy.

In working circle of piling equipment don’t have obstacle equipment.

3.5.1 **Mounting pile to pressing point**

Pile is mounted as shown as picture (L_{\text{max}} = 20\text{m})

In mounting period, all workers must keep away falling radius of pile for safe purpose.
Pile has been setup to ideal position, opeartor fix the vertical of piles base on level system of equipment.

3.5.2 **Pressing**

Operator control the machine to press the pile follow each period of cylinder which is fix on machine.

A worker record the number of dial every meter of pile.

If pile have more than one segment, the pressing segment will be stopped about 0.3-0.7m from ground level to weld the next segment.

When welding pile, welder check the tight for both end of 2 segment. Welding by layer untiil fill up slot (for head to head welding line) or complete the steel bar connection (for square pile, welding line with lap).

In whole pressing period, the straight of piles must be checked until completed pressing.

Stop pressing when achieve one in two following conditional:

- The toe of pile reach the toe design level

- The toe of pile doesn’t reach the toe design level but reach maximum allowable pressing load (Pmax)
3.6 Pile pressing record

During piling period, all technical parameter of pile is monitoring and written in pile pressing as follow:
- Date of work
- Start and end time of driving (including welding time, if any)
- Location, co-ordinate of design pile
- Pile name
- Pile type
- ID of pile segment, date of manufacturing and length
- ID of driving equipment
- Type of pressing machine
- Number of dial every meter of pile
- Level of toe pile
- Level of head pile
- Description the problem happen in pressing time (if any) and method to handle

4. Checking, inspection pile location after pressing

- Checking and inspection pile location is processed after completed pressing pile. Consultant (or Owner) and Contractor measuring the real location of pile, level of head pile after pressing or cut (if any)
- Cutting of remaining pile:
  After pressing pile reach Pmax, but pile is still remaining over ground to obstruct the pressing rig (automatic pressing rig – robot) then remaining pile will be cut by electric vibrating hammer (as picture below) with chipping line surrounding the perimeter of pile. The cut off level of pile in this case must be underground at least 10 to 30cm to reduce the impaction of pressing rig on the head of pile to damage pressed pile.
Figure: Electric Type Vibrating Hammer for pile chipping and cutting