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SCHOOLS DIVISION OF NEGROS ORIENTAL  
REGION VII

Kagawasan Ave., Daro, Dumaguete City, Negros Oriental



# TLE-IA-CARPENTRY

Quarter 4 – Module 2 (Week 3&4)

## IDENTIFY INSTALLATION PROCEDURES OF FORMWORKS COMPONENTS



GOVERNMENT PROPERTY  
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**TLE-IA-Carpentry 10**  
**Alternative Delivery Mode**  
**Quarter 4 – Module 2: IDENTIFY INSTALLATION PROCEDURES OF**  
**FORMWORKS COMPONENTS**  
**First Edition, 2020**

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# **TLE-IA-CARPENTRY**

**Quarter 4 – Module 2 (Week 3&4)**

## **IDENTIFY INSTALLATION PROCEDURES OF FORMWORKS COMPONENTS**



## ***What I Need to Know***

In this module you will learn more about INSTALLATION PROCEDURES OF FORMWORKS COMPONENTS in **CARPENTRY**.

After going through this module, you are expected to:

- Discuss the installation procedures of formwork components
- Realize the importance and benefits of formworks.
- Practice occupational safety when performing the installation of formworks.



## ***What I Know***

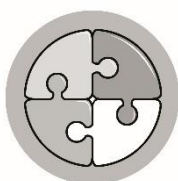
Direction: Supply a word or group of words to complete the sentence. Write your answer in a sheet of paper.

1. \_\_\_\_\_ is a system of structural members used temporarily to support loads during construction.
2. \_\_\_\_\_ acts as moulds for pouring concrete.
3. \_\_\_\_\_ The formation of a sharp nice corner is practically difficult and the concrete at corners is easily chipped and broken into pieces during the removal of concrete formwork.

### **Lesson**

# **1**

## **INSTALLATION PROCEDURES OF FORMWORKS COMPONENTS**



## ***What's In***

(Write your answers in a sheet of paper)

What are the different types of formworks?



## ***What's New***

### **What is Formwork in Building Construction**

**Formwork** is a mould or open box, like container into which fresh concrete is poured and compacted.

When the concrete is set, the formwork is removed and a solid mass is produced in the shape of the inner face of the formwork.

The top of the formwork is normally left open.

*Falsework is the necessary support system that holds the formwork in the correct position.*

**Formwork** is used to describe the process of building temporary molds in to which fresh concrete is poured to construct designated structural concrete elements and achieve its shape.

Formwork can be made out of timber, plywood, steel, precast concrete, or fiberglass used separately or in combination. Steel forms are used in a situation where large numbers of re-use of the same forms are necessary. For small works, timber formwork proves useful. Fiberglass made of precast concrete and aluminum are used in cast – in – situ construction such as slabs or members involving curved surfaces.

2



## ***What Is It***

### **FORMWORK INSTALLATION PROCEDURES**

#### **Preparing the site**

1. With a measuring tape, strings, and spikes, first, measure and indicate the borders of the concrete slabs.
2. Excavation is a process most people that install concrete formwork overlook. To remove debris and grass from the indicated area, excavate it first. Make sure that it results in an excavated area wherein the flow of water is not directed towards your home.
3. Using 2x4's-sized pieces of wood, frame the area utilizing the string as a guide. Nail the wooden forms together and gradually remove the lines.
4. In this last step, you can now lay a gravel base in place.

**Propping and centring-propping** is a system of structural members used temporarily to support loads during construction. The forces arising from these loads must be fully resolved, using props or columns to provide all the support needed for the work under construction, such as beams formwork but are not limited to only the above mentioned.

**Shuttering formwork** (shuttering) acts as moulds for pouring concrete.

**Provision of chamber** – The formation of a sharp nice corner is practically difficult and the concrete at corners is easily chipped and broken into pieces during the removal of concrete formwork. Hence, the provision of chamber could protect the corner from chipping when striking formwork.

**Cleaning and surface treatment.**

**After effectively preparing the area, you can now start with the concrete application.**

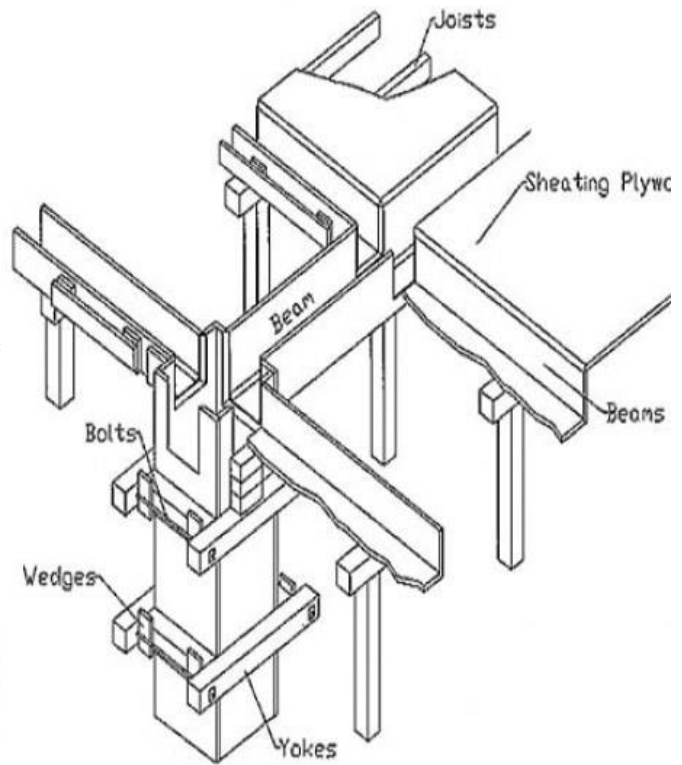
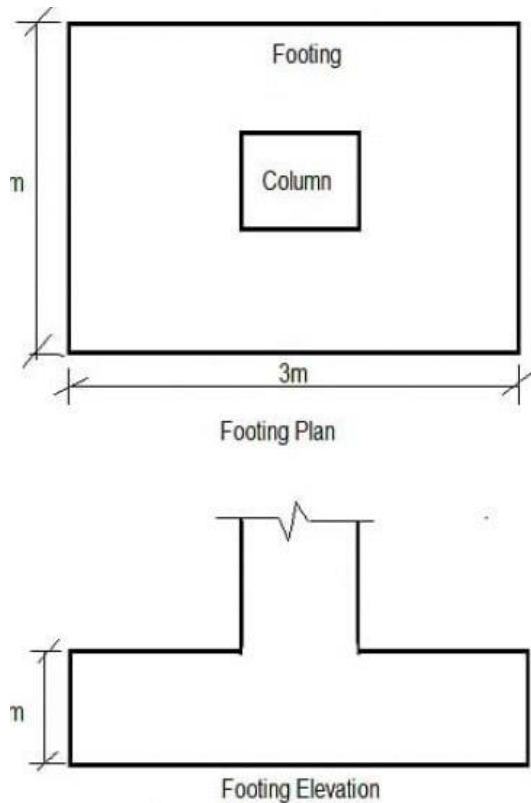
1. Use safety clothing when you are working with hazardous materials. Wear gloves, goggles, and shoes before you start working. Your safety is a priority.
2. Make sure to mix the correct ratio of concrete and water.
3. Start pouring concrete from the farthest side of the formwork up to your position.
4. Using a screen rod longer than the box of your concrete formwork, even out the mixture with working it at one end to another.
5. The excess liquid concrete needs to be rodded at the end of the forms. Repeat the whole process until the entire mixture is free from holes and looks finished and smooth.



## ***What's More***

### **Benefits of Formwork**

- Increased speed and efficiency in construction
- The requirement of skilled labor is reduced due to simplicity of assembly and disassembly.
- Metal column forms can be assembled and erected more easily than traditional formwork.
- Disposable forms can be readily assembled to site.
- High quality surface finishes are possible.



## ***What I Have Learned***

Direction: Supply a word or group of words to complete the sentence. Write your answer in a sheet of paper.

1. \_\_\_\_\_ is a system of structural members used temporarily to support loads during construction.
2. \_\_\_\_\_ acts as moulds for pouring concrete.
3. \_\_\_\_\_ The formation of a sharp nice corner is practically difficult and the concrete at corners is easily chipped and broken into pieces during the removal of concrete formwork.
4. \_\_\_\_\_ is used to describe the process of building temporary molds in to which fresh concrete is poured to construct designated structural concrete elements and achieve its shape.



## ***What I Can Do***

Direction: Write your answers in a sheet of paper.

- Write the different procedures of formwork components?

### **Activity**

- Make an improvised formwork using cardboard / empty boxes.



## ***Assessment***

Direction: Supply a word or group of words to complete the sentence. Write your answer in a sheet of paper.

1. \_\_\_\_\_ is used to describe the process of building temporary molds in to which fresh concrete is poured to construct designated structural concrete elements and achieve its shape.
2. \_\_\_\_\_ is a system of structural members used temporarily to support loads during construction.
3. \_\_\_\_\_ acts as moulds for pouring concrete.
4. \_\_\_\_\_ The formation of a sharp nice corner is practically difficult and the concrete at corners is easily chiped and broken into pieces during the removal of concrete formwork.
5. Increased speed and \_\_\_\_\_ in construction.
6. \_\_\_\_\_ forms can be assembled and erected more easily than traditional formwork.
7. \_\_\_\_\_ can ready assembled to site
8. The requirement of skilled labor is reduced due to \_\_\_\_\_ of assembly and disassembly.





## ***Answer Key***

### **What I Know**

1. Propping and centering propping
2. Shuttering formwork
3. Provision of chamber

### **What I Have Learned**

1. Propping and centering-propping
2. Shuttering formwork
3. Provision of chamber
4. formwork

### **Assessment**

1. Formwork
2. Propping and centering- propping
3. Shuttering formwork
4. Provision of formwork
5. Efficiency
6. Metal column
7. Disposable forms
8. Simplicity

## ***References:***

*Projectmanagement23.com (Formwork Installation Procedures)*

*w.w.w.slideshare.net (Formwork Construction Instruction)*

*methodstatementHq.com (Safety procedure for Erective and Dismantling Formwork)*

[https://thacampbell.typepad.com/class\\_handouts/Formwork.pdf](https://thacampbell.typepad.com/class_handouts/Formwork.pdf)

<https://www.scribd.com/document/310259093/CIVL-392-Chapter-6-Formwork>

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