



Concrete Road Construction

Outline

- 2 types of Construction (Manual, Slipform)
- Sequence of Construction

Concrete Road Construction

- Hand Placed
Vibrating Truss Screed



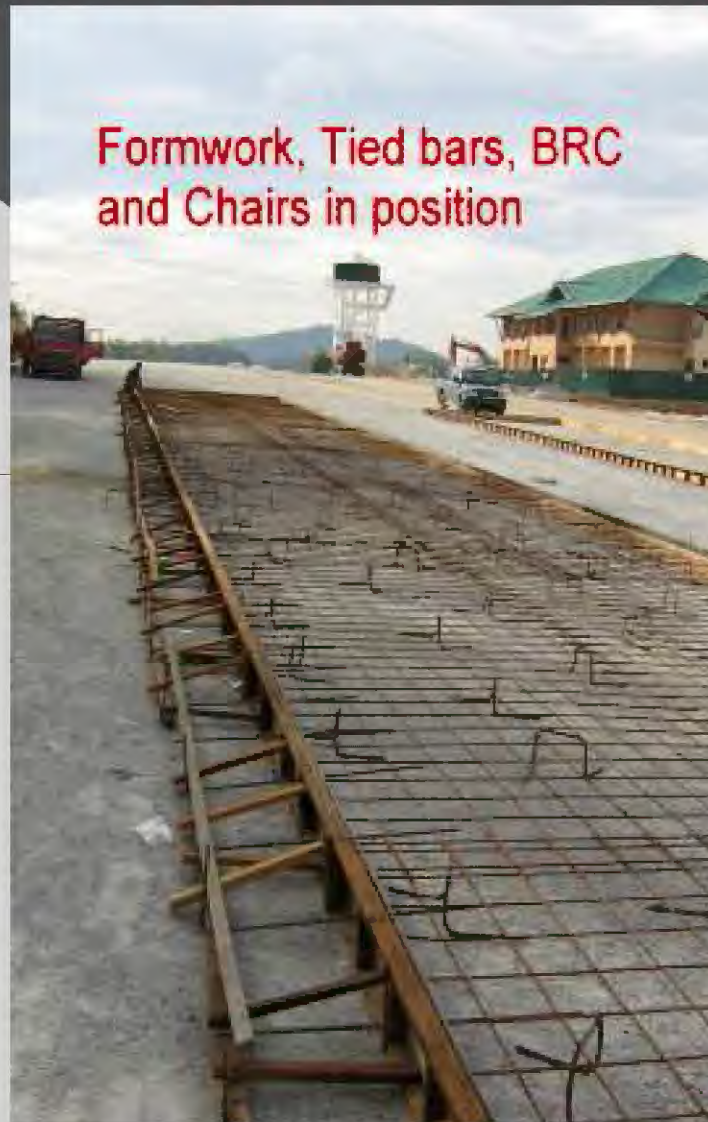
- Machine Placed
Slipformed



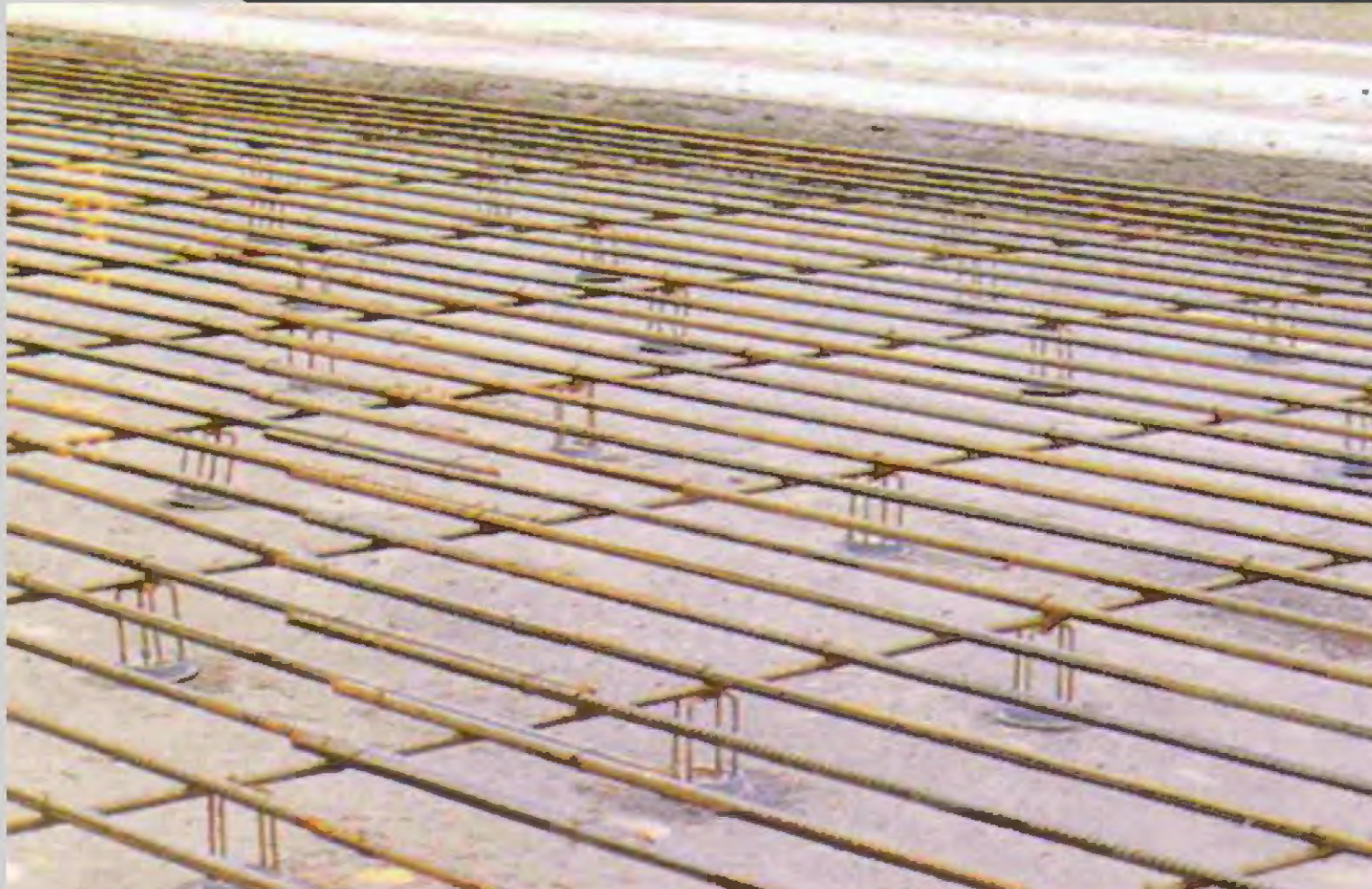
Formwork and BRC (PCP)



Formwork and BRC (JRCP)



Formwork and Rebars(CRCP)



Casting Pavement(JRCP)



Casting Pavement PCP (using Truss Screed)



Casting Pavement (CRCP) using Slipform



Finishing-Brooming (Close up view)



Completed broom finished surface (close-up view)

Curing-Aluminized compound



Protection



Proof of Correct Joint Installation (see "good" crack directly below saw cut joint)



Sealing with Pourable Sealant



Completed Pavement (PCP)



Slipform Machines

(Clockwise right: China, India, USA)



Slipform Machines

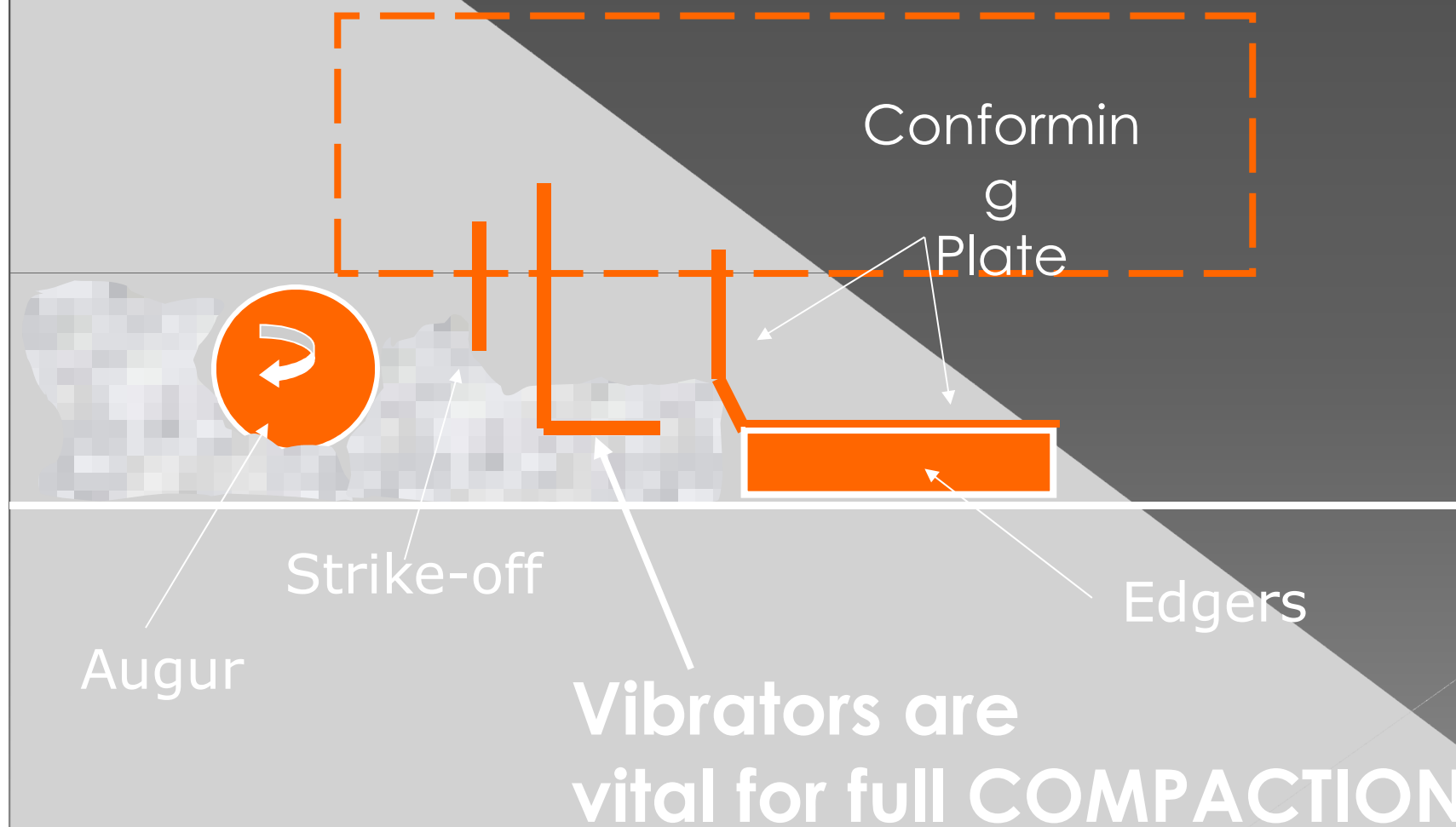
(Clockwise right: Myanmar, Philippines, Indonesia)



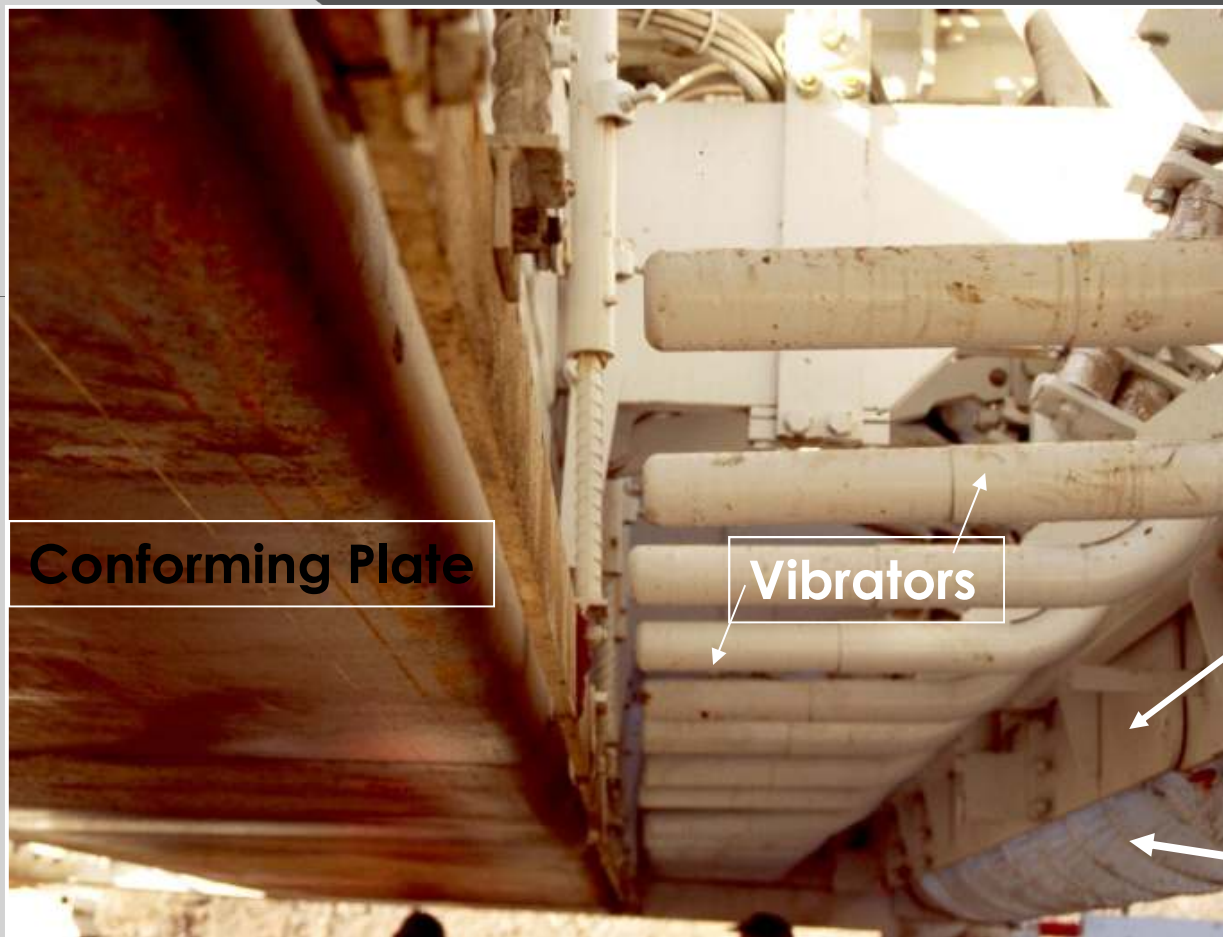
Slip-form Paver



Parts of a Slip-form Paver...



The Vibrator **spacing, frequency, amplitude** and **paver speed** determine the degree of **Compaction**



Conforming Plate

Vibrators

Paving
Direction



Strike-off

Augur

4 Types of Texture Finish

1. Broom Finish
2. Tined Finish
3. Hessian drag Finish
4. Exposed Aggregate Finish

Texture Finish- Broom Finish



Completed broom finished
surface (close-up view)

Texture Finish – Tined Finish



Texturing device, showing spring steel tynes on “broom”

Texture Finish – Tine Finish



Tining Completed

Texture Finish – Hessian Drag



Textured Finish – Exposed Aggregate Finish



Concrete Testing

● Fresh Concrete

1. Slump Test
2. Fresh Density
3. Air Content Test

● Hardened Concrete

1. Cube Test
2. Flexural Test
3. Core Test
4. Sand patch Test
5. Smoothness Test (3m straightedge, RSE, IRI)



Video PCP Kulim Road Construction