

Elevated Slab Formwork Erection JHA

Worked instructional example

Work and worksite

A formwork crew will erect a designed shoring, bearer and deck-form system for one elevated cast-in-place building slab. Assembly uses protected access and the system's released erection sequence; the example ends at pre-pour handover. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- Current formwork drawings establish support loads, shore layout, braces, member connections and permitted material staging.
- The supporting floor or foundation, erection access, fall protection and area below must be released before assembly.
- This is partial coverage of general formwork erection. Flying forms, tiered single-post shores, concrete placement, stripping and reshoring removal need separate analyses.

Questions before work

- Who confirms that the supporting surface can carry the shore reactions and staged materials?
- How will each erection stage retain safe access and fall protection before the deck is complete?
- Which current drawings and hold points govern the pre-pour formwork handover?

Task Hazard Control

1 Release the design and support area

Hazard: An assumed floor capacity or outdated shore layout can allow the elevated form system to fail.

Control: Formwork lead obtains current drawings and the supporting-surface load release. Mark the bay and permitted storage locations; refer mismatched dimensions, supports or site conditions to the responsible designer before erection.

Verification: Lead compares the marked bay with the current support and formwork documents.

Reasoning: The existing surface and the temporary form system form one load path.

2 Inspect and stage components

Hazard: Damaged shores or unstable piles can collapse or strike a worker during assembly.

Control: Inspect components against the system requirements and remove weakened or incompatible parts from use. Land manageable quantities on specified supports, preserving protected routes and keeping people clear of moving loads.

Verification: Assigned inspector records rejected parts; foreperson studies storage and access before assembly.

Reasoning: A missing brace or substituted shore can change the designed system.

3 Erect shores and restraint

Hazard: An incomplete shore line can overturn; unsupported bases or misplaced heads can transfer loads incorrectly.

Control: Crew installs bases, shores, heads and braces in the released sequence from suitable access. Establish the designed foundation contact and restraint at each stage; do not use loose packing or unapproved eccentric bearing to make parts fit.

Verification: Formwork lead verifies location, contact and required restraint before bearers are added.

Reasoning: Temporary stability is needed during erection as well as during the pour.

Complete the work and hand over

4 Place bearers and deck forms

Hazard: Workers can fall through the advancing deck or be struck by dropped members and panels.

Control: Use the planned material transfer and protected erection positions. Install members and deck forms in the specified sequence, keeping the area below closed and protecting incomplete edges and openings as they develop.

Verification: Access lead checks the next work position and foreperson checks member restraint before advance.

Reasoning: The completed deck's appearance does not protect the preceding erection stage.

5 Complete the prepour review

Hazard: An omitted connection, brace or loading limit can remain hidden until fresh concrete loads the forms.

Control: Compare the assembled bay with current drawings, specified hardware and loading restrictions. Resolve discrepancies through the designated review process; do not cover defects or release pouring while actions remain open.

Verification: Responsible reviewer records actual findings and unresolved items at the pre-pour hold point.

Reasoning: A planned check must produce actual findings before the next operation starts.

6 Hand over and preserve support

Hazard: A later crew can move a brace, overload the deck or assume supports can be removed.

Control: Brief the placing lead on permitted loads, pour sequence and support restrictions. Assign the required shoring inspections immediately before, during and after placement under the separate pour plan; protect supports from interference.

Verification: Formwork and placing leads confirm inspection roles and loading limits at handover.

Reasoning: This erection example ends before placement and grants no stripping release.

Pause and reassess

- Support settlement, damaged components or loss of brace contact.
- The assembled layout, staged load or planned pour differs from current drawings.
- Protected access, opening protection or the exclusion area below is lost.

Improve the controls

Needs improvement: Use enough props.

More useful: Formwork lead releases the support surface and current shore layout; crew installs the specified contact, restraint and connections before deck loading.

Needs improvement: Check the forms before pouring.

More useful: Responsible reviewer compares the assembled bay with current drawings, records discrepancies and holds the pour until actions are resolved.

Decisions that change the analysis

Does the existing wall-form AHA cover this slab system?

No. Its ground-level gang wall forms use a different temporary load path and access sequence. This example addresses elevated slab shores and deck forms; the actual design and pre-pour review remain project decisions.

What must the crew record for actual use?

Record the form-system identity, current drawing revision, support/load basis, component findings, staged access, assigned review roles and open actions. Keep erection handover separate from pour authorization and later strength-based removal release.

Training needs

- System-specific shore, bearer, head and brace assembly, including component rejection and permitted adjustment.
- Instruction in the staged fall-protection, dropped-object and formwork handover arrangements for assigned workers.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

OSHA 1926.703 Cast-in-place concrete

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.703>

OSHA 1926.701 Concrete construction loads and reinforcing steel

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.701>

OSHA 1926.501 Fall protection

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.501>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This instructional example supplies no actual inspection results, signatures or work approval.