



MAGNUM CONSTRUCTION SERVICES INC.

CRANE, RIGGING & LIFTING PLAN

Document Code: MCS-QHSE-14 | **Revision:** 1.0 | **Effective Date:** October 31 2025

1. PURPOSE

This plan establishes standardized requirements and safe-work procedures for all crane, rigging, and lifting operations performed under Magnum Construction Services Inc. (MCS).

Its objectives are to:

- Prevent injury, property damage, and equipment failure.
 - Define responsibilities and qualifications for all lifting personnel.
 - Ensure compliance with OSHA 29 CFR 1926 Subpart CC, ASME B30 Series, and manufacturer recommendations.
 - Provide a consistent system for planning, approving, and executing every lift—from routine picks to engineered critical lifts.
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2. SCOPE

Applies to every MCS project involving cranes, hoists, derricks, rigging, or lifting equipment, including subcontractor operations.

It covers:

- Mobile, tower, overhead, and crawler cranes.
 - Rigging gear, slings, spreader bars, and lifting beams.
 - Critical lifts (> 75 % rated capacity / multi-crane / personnel / public exposure).
 - Pre-lift planning, execution, and post-lift review.
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3. REFERENCES

- OSHA 29 CFR 1926 Subpart CC – Cranes & Derricks in Construction



- OSHA 29 CFR 1926.251 – Rigging Equipment for Material Handling
- ASME B30.5 (Mobile Cranes), B30.9 (Slings), B30.10 (Hooks), B30.26 (Rigging Hardware)
- ANSI A10.42 – Rigging Qualifications
- ISO 45001 – Operational Control & Competence
- MCS Field Safety Program (MCS-QHSE-02)

4. ROLES & RESPONSIBILITIES

Role	Key Responsibilities
Executive Director / CEO	Approves this plan; ensures resources for certified operators and annual crane inspections.
Corporate EHS Director	Maintains this policy, oversees audits, and verifies third-party certifications.
Project Manager	Reviews and approves all lift plans; confirms qualified personnel and proper documentation.
Lift Director / Site Superintendent	Coordinates all lifts; conducts pre-lift meetings; enforces exclusion zones and communication protocols.
Crane Operator	Operates only within rated load charts; halts lifts under unsafe conditions.
Qualified Rigger / Signal Person	Inspects rigging, controls signaling, and ensures safe attachment of loads.
All Employees & Subcontractors	Maintain awareness, stay clear of suspended loads, and report unsafe acts immediately.

5. LIFT CLASSIFICATION

Lift Type	Definition	Requirements
Ordinary Lift	≤ 75 % of crane's rated capacity	Field JHA + standard pre-lift checklist



Lift Type	Definition	Requirements
Critical Lift	> 75 % capacity / multi-crane / personnel / blind pick / public exposure	Engineered lift plan + PM & EHS approval
Multiple Crane Lift	Two or more cranes supporting a single load	PE-engineered rigging diagram + synchronized procedure
Personnel Platform Lift	Hoisting workers with approved basket	OSHA §1926.1431 compliance + 125 % test load

6. LIFT PLANNING PROCEDURE

6.1 Pre-Lift Requirements

- Complete **Lift Plan Form (MCS-QHSE-14A)** before any lift.
- Identify load weight, center of gravity, rigging configuration, and radius.
- Review crane load chart, boom length, and counterweight.
- Confirm ground-bearing pressure $\geq 3,500$ psf or engineered verification.
- Inspect for overhead power lines, utilities, and wind conditions.

6.2 Ground Preparation & Setup

- Use mats or plates on soft soil; level crane ≤ 1 % grade.
- Maintain 10 ft clearance from lines ≤ 50 kV (plus 4 in/ kV thereafter).
- Deploy outriggers fully and verify locking pins.

6.3 Rigging Control

- All rigging hardware must be tagged and traceable.
- Factor of safety $\geq 5:1$ for wire rope / chain, 10:1 for synthetic.
- No knots, bent hooks, or shock loading.
- Use spreader bars for off-center loads.

7. COMMUNICATION & SIGNALS

- Only one designated **Signal Person** per crane.
- Use OSHA Appendix A hand signals or dedicated radio channel.



- Conduct radio check before lifting.
- Stop work immediately if communication is lost.

8. PRE-LIFT MEETING

Before each critical lift:

- ✓ Review scope, weight, radius, load path.
- ✓ Confirm rigging inspection and tag status.
- ✓ Assign Lift Director and Signal Person.
- ✓ Check weather and ground conditions.
- ✓ Discuss emergency stop signals and rescue plan.

Record attendance on **Pre-Lift Checklist (MCS-QHSE-14B)**.

9. ENVIRONMENTAL CONDITIONS

- Suspend operations $\geq$ 25 mph wind or lightning within 10 miles.
- Cease lifting during fog, heavy rain, or poor visibility.
- Document stoppage and conduct pre-restart inspection.

10. INSPECTIONS & MAINTENANCE

Inspection Type	Frequency	Responsible Party	Record Retention
Pre-Use Crane Check	Daily	Operator	1 Year
Rigging Inspection	Each Lift	Qualified Rigger	1 Year
Monthly Crane Audit	Monthly	Mechanic / Operator	Corporate Database
Annual Third-Party Cert	Annually	PE / Certified Inspector	Corporate EHS Archive

Defective equipment is tagged “**OUT OF SERVICE**” and removed immediately.



11. EMERGENCY PROCEDURES

- Stop work and secure area in event of tip-over or dropped load.
 - Notify Superintendent, EHS Director, and Emergency Services.
 - Account for personnel at muster point.
 - Preserve scene for investigation.
 - Complete Incident Report within 24 hours.
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12. TRAINING & QUALIFICATIONS

- Crane Operators: NCCCO or equivalent certification required.
 - Riggers & Signal Persons: Qualified per OSHA 1926.1401–1442.
 - Annual refresher training for all lifting personnel.
 - Site-specific orientation prior to mobilization.
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13. DOCUMENT CONTROL

- Maintain Lift Plan Forms (MCS-QHSE-14A), Pre-Lift Checklists, and Rigging Logs on site for five years.
 - Upload certifications and inspection records to corporate EHS portal.
 - Include summary in monthly Safety Performance Report.
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14. PERFORMANCE INDICATORS

- 100 % critical lift plans completed and approved pre-lift.
 - Zero dropped-load incidents.
 - 100 % operator/rigger qualification compliance.
 - All non-conformances closed within 7 days.
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15. REVIEW & IMPROVEMENT

The Corporate EHS Director shall review this plan annually or following any lifting-related incident.

Updates are communicated via Safety Bulletins and Toolbox Talks.

16. APPROVAL SIGNATURES

Approved By	Title	Signature	Date
Michael Gaya	Executive Director / CEO	_____	_____
Anthony Magadino	President / Managing Partner	_____	_____
Corporate EHS Director		_____	_____