RIGGING RESOURCE CENTRE

LIFT EVALUATION FORM

GENERAL

Location: _____ **Lift Date & Time:** _____

Work Order Number: _____ **Lift Supervisor:** _____

Description of Item to be Lifted *(if multiple items are being lifted, they must be identical in all ways for this lift plan to apply)*: _____

Has the crew performed this lift before? Y ☐ N ☐

LIFT EVALUATION (Check all that apply)

HAZARDS TO PERSONNEL

Y ☐ N ☐ Does the lift require personnel lifting devices? (i.e. scissor lifts, personnel platforms, etc.)

Y ☐ N ☐ Will load handling personnel be put in hazardous locations? (i.e. pinch points, crush points, danger zone)

Y ☐ N ☐ Will the load be lifted in proximity to other work areas/workers?

Y ☐ N ☐ Does the load contain materials that may be immediately hazardous to life and health?

HAZARDS IN PROXIMITY TO WORK AREA

Y ☐ N ☐ Will the load encroach on utilities? (i.e. power, gas, pressure lines, etc.)

Y ☐ N ☐ Is there a potential for electromagnetic interference that could cause loss of communication? (i.e. radios)

COMPLEXITY OF LOAD HANDLING ACTIVITY

Y ☐ N ☐ Does the shape or integrity of the load require special attention?

Y ☐ N ☐ Does centre of gravity in relation to pick points cause a concern?
(i.e. top heavy, concentration of load in relation to lift point)

Y ☐ N ☐ Can the centre of gravity of the load shift during the lift? (i.e. liquids, movable parts)

Y ☐ N ☐ Are limited clearances involved?

Y ☐ N ☐ Does the load require manipulation? (i.e. need to be turned, flipped, rotated, etc.)

Y ☐ N ☐ Can the load on one, or more, of the sling legs change during the lift?

Y ☐ N ☐ Are multiple cranes being used for the lift?

Y ☐ N ☐ Is the load being lifted unique or unfamiliar to workers?

Y ☐ N ☐ Are special means required to connect or disconnect rigging?

ENVIRONMENTAL CONCERNS

Y ☐ N ☐ N/A ☐ If the load is taken outdoors, will wind, rain, and visibility be a factor?

Y ☐ N ☐ Will temperature be a factor? (i.e. temperature limits of rigging and/or lifting equipment)

CRANE AND RIGGING EQUIPMENT CAPACITY AND PERFORMANCE

Y ☐ N ☐ Does the load exceed 75% of the crane's rated capacity? *(refer to the lift plan)*

Y ☐ N ☐ Does the load exceed 90% of the rigging equipment being utilized? *(refer to the lift schematic)*

Y ☐ N ☐ Is the load being removed from a location where it may cause suction or binding? Y ☐ N ☐ Will the speed of the equipment cause dynamic loading on the rigging?

Y ☐ N ☐ Will the lift require the use of multiple cranes (tandem lift)?

Y ☐ N ☐ Can a load shift cause overload of any one piece of rigging equipment?

Y ☐ N ☐ Are there any environmental concerns for the rigging? (i.e. heat, chemical, abrasion, humidity)

Y ☐ N ☐ Are there any diameter restrictions to the rigging that may cause derating of slings?
(D/d ratios, min. diameters for polyester roundslings, max. and min. diameters for wire rope and web slings)

COMMERCIAL IMPACT

Y ☐ N ☐ Could the load pose a risk to the public or the environment?
(i.e. load contains hazardous materials, compressed gases, etc.)

Y ☐ N ☐ Could damage from a loss of the load result in lost time or delays to a project?

Y ☐ N ☐ Are replacement parts unavailable if component were to be damaged?

Y ☐ N ☐ Would there be considerable replacement costs for the component being lifted?

Y ☐ N ☐ Could damage or loss of load cause commercial impact?

SITE REQUIREMENTS

Y ☐ N ☐ Are there any corporate considerations that require attention?

Y ☐ N ☐ Are there any regulatory considerations that require attention?

REPETITIVE LIFTS

Y ☐ N ☐ Are there any distractions to consider? (i.e. other work, noise, traffic, etc.)

Y ☐ N ☐ Is fatigue a factor to consider?

If yes was checked for any of the considerations above, they constitute a critical lift. Continue with the rest of the form.

If not, fill out a Pre-Job Hazard Assessment and perform the lift as a standard lift.

SKETCH LIFT PLAN SHOWING POSITIONS OF EQUIPMENT AND PERSONNEL

Operator (“O”) **Tag Line Handlers (“T”)** **Spotters (“S”)** **Communication Personnel (“C”)**

PERSONNEL REQUIRED FOR LIFT

Y ☐ N ☐ **Crane Operator(s)** _____

Y ☐ N ☐ **Signaler(s)** _____

Y ☐ N ☐ **Spotter(s)** _____

Y ☐ N ☐ **Tag Line Handler(s)** _____

Y ☐ N ☐ **Rigger(s)** _____

Y ☐ N ☐ **Lift Director** _____

Y ☐ N ☐ **Lift Planner** _____

Y ☐ N ☐ **Safety Officer** _____

Y ☐ N ☐ **All personnel are authorized and competent for the tasks at hand**

List the names of any other personnel required and their responsibilities during the lift:

_____

_____

_____

Above Confirmed By: (print name) _____ **Signature:** _____

Sketch load here indicating centre of gravity, lift points and rigging utilized:

(Indicate sling angles and tensions for determining capacities of all required rigging.)

THE LOAD BEING LIFTED

Load Dimensions: Length _____ **Width**_____ **Height**_____

Load weight:_____ **Determined By:** ☐ manufacturer ☐ Calculation ☐ Shipping Documents

Y ☐ N ☐ **Centre of Gravity confirmed**

Y ☐ N ☐ **Pick Points confirmed as appropriate**

Y ☐ N ☐ **Load integrity confirmed for chosen Pick Points**

Y ☐ N ☐ **Laydown area is sufficient to lay down the load**

If load weight calculated, show calculation or information here:

Above Confirmed By: (print name) _____ **Signature:** _____

LOAD HANDLING EQUIPMENT

Type of Crane(s): ☐ Bridge Crane ☐ Jib Crane ☐ Monorail Crane ☐ Gantry Crane

Crane Capacity: _____

Will hand chain hoists & lever hoists be used: Y ☐ N ☐

Lever and/or chain hoist capacity: _____

Have periodic inspections been confirmed: Y ☐ N ☐

RIGGING EQUIPMENT BEING UTILIZED

Rigging Complies With: ☐ ASME ☐ Legislative Requirements ☐ Other: **Specify** _____

Hardware: ☐ Shackle ☐ Eyebolt ☐ Swivel Hoist Ring

Slings: ☐ Synthetic Web ☐ Polyester Round ☐ Chain ☐ Wire Rope

Below the Hook Lifting Devices: ☐ Spreader Bar ☐ Lifting Beam ☐ Plate Clamp ☐ Magnet ☐ Other

☐ Pre-lift tests required: **Specify** _____

_____

What are the Restrictions for the Rigging: ☐ D/d Ratios ☐ Edge Radius ☐ Diameter restriction ☐ Angles

☐ Temperature ☐ Environmental ☐ Minimum Ratings ☐ N/A

Homemade Devices: ☐ N/A ☐ Engineering Confirmed Type: _____

Weight of Rigging if Applicable *:* _____

Periodic Inspections Confirmed: Y ☐ N ☐

Pre-Use Inspections Completed: Y ☐ N ☐

***NOTE: Do company policies state that periodic inspections must be current prior to lift** Y ☐ N ☐

Concerns for any of the above must be noted: _____

_____

Above Confirmed By: (print name) _____ **Signature:** _____

***NOTE: Show calculation indicating crane/hoist capacity in relation to load being lifted as a percentage**

Crane Capacity: _____

Load Weight: _____

Rigging Weight (if applicable): _____

Load weight + rigging weight ÷ crane capacity: _____**% of the crane's capacity.**

Above Confirmed By: (print name) _____ **Signature:** _____

SITE SERVICES AND SUPPORT EQUIPMENT

Y ☐ N ☐ **Scissor lifts/ Boom lifts**

Y ☐ N ☐ **Traffic control (i.e. forklifts, mobile equipment, trucks)**

Y ☐ N ☐ **Emergency personnel required (i.e. first aid, safety personnel, equipment service personnel)**

Y ☐ N ☐ **Auxiliary power**

List any other equipment that may be required: _____

_____

_____

COMMUNICATION SYSTEMS

Y ☐ N ☐ **Hand Signals**

Y ☐ N ☐ **Radio Systems**

Y ☐ N ☐ **Warning Systems (i.e. horns, beacons, alarms)**

Concerns for any of the above must be noted: _____

_____

SITE CONTROL

Y ☐ N ☐ **Pedestrian and traffic controls in place**

Y ☐ N ☐ **Proper barricades and flagging in place**

Y ☐ N ☐ **Potential interference from other site activities reviewed**

Concerns for any of the above must be noted: _____

_____

_____

_____

Above Confirmed By: (print name) _____ **Signature:** _____

TO BE COMPLETED BY THE LIFT DIRECTOR PRIOR TO PRE-LIFT MEETING:

CONTINGENCY CONSIDERATIONS

Y ☐ N ☐ **Process reviewed for what to do if power failure occurs**

Y ☐ N ☐ **Process reviewed for what to do if communication systems fail (radio, horns, beacons, etc.)**

Y ☐ N ☐ **Process reviewed for what to do if fowling of rigging occurs during lift**

Y ☐ N ☐ **Process reviewed for what to do if un-authorized entry of personnel or equipment occurs**

Y ☐ N ☐ **Processed reviewed for what to do if deviation from plan occurs**

EXECUTION OF LIFT PLAN

Y ☐ N ☐ **Lift director has confirmed the set up and preparation requirements of the plan**

Y ☐ N ☐ **Lift director has confirmed that all equipment has been tested and inspected as required**

Y ☐ N ☐ **Lift director has confirmed contingency plans are in place and understood**

Y ☐ N ☐ **Lift director understands that deviations of the lift plan are under their direct control**

EMERGENCY ACTION PLAN

Y ☐ N ☐ **Reviewed existing site emergency plan and modifications if required**

Y ☐ N ☐ **Reviewed the need for emergency action plan related to current load handling activity**

Y ☐ N ☐ **Reviewed plan for what to do if equipment failure occurs**

Y ☐ N ☐ **Reviewed plan for what to do if injury occurs**

Concerns for any of the above must be noted: _____

_____

_____

Lift Approved By: (print name)_____ **Title:** _____

Date:_____ **Signature:**_____

PRE-LIFT MEETING

Y ☐ N ☐ **Overview of lift reviewed**

Y ☐ N ☐ **Lifting equipment and rigging involved in lift reviewed**

Y ☐ N ☐ **Sequence of events reviewed with all involved**

Y ☐ N ☐ **Safety considerations reviewed along with responsibilities**

Y ☐ N ☐ **Lift director has confirmed assigned roles and all in attendance understand their roles and responsibilities**

Concerns for any of the above must be noted: _____

_____

_____

Lift Approved By: (print name) _____ **Title:** _____

Date: _____ **Signature:** _____

POST LIFT REVIEW

Y ☐ N ☐ Was the lift performed safely?

Identify and describe any safety issues that arose during this lift.

Safety Issues	Action Taken

Specify any other concerns or changes required if lift is to be repeated at another time:

_____

_____

_____

_____