CRANE OPERATION SPECIFICATIONS

Rev: 2 | **Revision Date:** 5/14/2019 | **I.D. Number:** COS

Crane Operation Specifications

No person, firm, or corporation shall set a crane in any public right-of-way within the City of Fort Lauderdale **without first obtaining a (GTEMPROW) permit** from the Building Department of the City of Fort Lauderdale. Review additional **Crane Permit Requirements** HERE.

[Building Permit Application]

The Applicant shall:

- Indicate the property street address, location and description of the area for which a crane is to be set; the name and address of the applicant; type, rated load capacities, weight and dimensions of crane; purpose of the proposed work to be completed; approximate time required to complete the work, and a copy of an approved work zone traffic control plan.
- Provide a sketch defining the exact location of the area within which the crane will be operating (Crane Area). The crane will not be permitted to operate outside of the Crane Area. The sketch shall provide dimensions of the crane operating area and ties to existing features on the site so it can easily be located in the field. The corners of the Crane Area shall be marked with paint in the field, so that it is easily verifiable by the City Inspector. The sketch shall also provide information such as property address, crane weight, dimensions and specifications, details of padding to be used under outriggers, materials to be moved and respective weights, jib circle and radius. If the jib circle overlaps private property (other than the property of permitee), a letter of no objection is required from the respective owner(s). The information of the crane company shall be printed on the sketch with the printed name and signature of a qualified agent of the crane company.
- A $10,000.00 bond is required for the proposed crane and required restoration on City right-of-way. Contractor shall be responsible to repair, with no cost to the City and to the City's satisfaction, any and all damages to the street, sidewalk, and underground utilities, within the City's right-of-way, caused by erection and operation of crane. Bond Information may be found on our DSD-Engineering Page
- Maintain traffic flow during the crane operation and provide traffic control devices necessary for the maintenance and protection of traffic and pedestrians. Accessible areas within the swing radius of the crane must be barricaded to prevent people from being struck or crushed by the crane. Maintenance of Traffic (MOT) Permit Info
- Notify appropriate agencies to identify the presence and locations of Underground Utilities and mark-out those locations before setting the crane up on any public street or right-of-way. The utility disclosure may utilize the services of a Ground Penetrating Radar (GPR) or utility mapping organization. A **minimum of 72 hours** before commencement of operation near electric power lines, notify the electrical utility for an onsite meeting to establish conditions to safely complete the operation.
- Ensure that no underground installation such as electrical vaults, conduit banks, tanks, water main, storm drainage, and sewer **exist within 5 feet of the area** of the dunnage mats and outriggers.

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- Utilize the services of a Geotechnical Firm to evaluate and determine the soil bearing capacity of the soil on which the crane will operate. The weight of the crane and its respective load may overburden the underlying soils, causing undesirable settlement and damage to buried utilities in the vicinity of the crane foundation.
- Ensure that the bearing pressure imposed by the crane is less than the allowable bearing pressure of the supporting soils. In no case the bearing pressure imposed by the crane on each outrigger shall not exceed 1500 pounds per square foot (psf).
- Examine the surface of asphalt or concrete for cracks, depressions and humps that are the indication of subsurface movements. While these surfaces may seem more secure than soil, they can hide subsurface defects created by poorly compacted utilities backfill that do not show up until the crane is lifting load. Avoid working on concrete and asphalt surfaces without investigating their construction.
- Utilize the services of a Registered Professional Engineer to evaluate the bearing area of the dunnage or mats necessary to distribute the weight of the crane as well as calculate the weight on each outrigger or crawler track. The worst-case scenario weight on a single outrigger occurs when the crane slews between the rear and side quadrants. Upon competition of the evaluation, a documented plan to ensure crane stability and integrity of underground installation shall be provided to the City's engineering department.
- Provide a signed and sealed letter from a Geotechnical Engineer stating that based on his/her subsurface investigation the Crane Area is clear of underlying existing utilities susceptible to damage, free of voids and/or loose material and that the existing pavement and underlying materials are structurally adequate to support the crane and all loads imposed within acceptable deflection tolerances required for safe crane operation. The letter shall further certify that any structures that may exist in the vicinity of the Crane Area (such as seawalls, pools, subsurface vaults and building components) are structurally adequate to withstand the forces generated by the crane operation. The Geotechnical Engineer shall describe in the letter the methodology used to make these determinations.
- Place outriggers floats on a suitable blocking/cribbing composed of timber, steel, or other dense material to reduce the chance of soil settlement when handling moderate loads known to be well within the crane's capacity and on average soils. When dunnage/ blocking is composed of multiple pieces, such as wood timber, the collective assembly must be tightly packed, with no space between adjacent members. The float should bear on all timbers or on a steel or composite plate that can distribute the weight evenly over the entire assembly. The material utilized for cribbing must be dense enough to resist crushing from the force applied, and arranged or assembled to prevent individual movement during operation. Blocking should be employed under all floats so the crane maintains equal support in all quadrants of operation.
- **Notify the Engineering Department in advance of setting a crane within the right-of-way** and after setting the crane in order to schedule the inspections.
- Provide an Indemnification and Hold Harmless Agreement executed by permit applicant and property owner on a standard form provided by the Engineering Department. The agreement may need to be modified to address particular conditions of a project. Hold Harmless Form
- A Revocable License (RL) will be required if operation results in traffic detours **exceeding (3) three days.**

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