Facilities Planning and Design

Site Safety Details to Take Into Consideration Before Breaking Ground

Tips for planning safety into a project while in the pre-construction phase.

By Jeff Eriks and Evan Williams

Site safety is a major concern at project sites. Prior to beginning any project, the contractor, owner and design team need to fully evaluate the impact of the construction on the actual site itself as well as the surrounding areas. The major topics we will cover in this article include the owner's safety plan and requirements, the contractor's safety plan, the municipality and/or traffic board requirements as well as other various factors that play into the design of the overall project safety plan. This needs to be a group effort to build and manage the plan—a single entity cannot complete an effective safety program by itself. Everyone has a different perspective/role and his/her input is invaluable to the design of the overall safety program.

The basic premise and assumptions for this article is that the project is:

- Taking place in a more urban area that has a lot of car traffic but little foot traffic.
- Ground-up construction project with additional operations onsite.
- Employees will be visiting the project daily to go to work at the other buildings.
- Visitors will be onsite periodically.

Owner Safety Requirements

Any design and construction firm must fully read and understand the owner's safety requirements and incorporate them into the project safety plan. Some owners have very strict safety procedures that must be followed, which can include:





Delivery of large items and consideration of truck traffic onsite.

- Construction worker parking areas
- Drug testing
- Access controls
- Personal Protective Equipment (PPE)
- Sign-in/sign-out procedures
- Other items

The contractor must agree to these conditions and pass them on to the subcontractors so that everyone understands what must be done daily to comply with owner requirements. This is the most important step in the process because oftentimes the owner's insurance requires these items. If an incident occurs because one of these requirements is not being followed, it could lead to lawsuits down the road.

Once the contractor understands the requirements, they must build a site-specific safety program that complies with the owner's requirements as well as their own. They should be merged together to form one cohesive plan that everyone can follow. This makes it easier to track and manage as the project kicks off and progresses.

Contractor Safety

Contractors need to know and understand the scope of their work and what will be required for parking, deliveries and onsite temporary facilities for their project. During the pre-con phase, the contractor and design team should set out to put together an onsite traffic management plan that shows the designated areas for construction traffic, construction worker parking and access points, delivery locations, temporary offices and facilities. This plan would

also consider the employee access for the owner's other employees, so we can keep them out of the construction zone. Some other aspects of this plan would include signage requirements, temporary fencing, and temporary lighting locations to keep all people safe within and outside the construction area. Onsite signage would include access restrictions, directional signage, PPE requirements, sign-in locations, designated parking areas and many other safety-related components that any visitor would need to know prior to entering the work area.

As part of a safety plan, the use of contractor verification and safety orientation should be included. This means that any subcontractor employee who is going to work on the jobsite must take part in a safety orientation prior to being allowed on the site. The orientation consists of safety items the general contractor specifies as well as any the owners have included. Once orientation is completed, the subs are added to the log with a unique identifier number, which is written on a sticker and affixed on their hard hat for the duration of their work on the project. This is a good way to track so it is known that all workers onsite have gone through the orientation. Weekly safety and foreman meetings are also held to discuss any concerns, upcoming events or other items that all team members must be made aware.

Large Scale Impact

While often it is thought that the project will only impact your actual construction area, considering the larger impact of the project on your neighbors and the traffic outside the construction site itself should be taken into account as well. During various points of the project,

deliveries can require 18-wheeler access or concrete deliveries, which could mean 10 to 20 trucks per hour showing up onsite and will also need to be considered. This type of traffic is common at construction sites and how this traffic is handled should be evaluated so neighbors do not complain and to avoid any safety issues onsite. Blocked entrances should be avoided to not adversely affect line of sight for people accessing the site for any reason.

Caution should be used regarding people walking around the site to avoid any injuries or incidents related to backing vehicles or blind access. Many municipalities or owners will require a traffic management plan, which will show them how the influx of construction worker parking, delivery vehicles, truck access, etc. will be dealt with, without causing issues with traffic. An additional requirement to provide certain access plans based on road weight or commercial vehicle restrictions on nearby roads, which could be a safety concern, may be requested.

Training and Staff Development

An absolutely critical element to ensuring a safe jobsite is to invest in personnel and best practices. Part of this should include staff that has appropriate OSHA 10-hour and 30-hour training. These staff members will be best able to implement the goals of the owner and design/construction teams in ways that align with OSHA regulations. In addition, they are better able to identify potential risks well before they become a problem. Encouraging and incentivizing current employees to get this training, as well as incorporating this in the hiring criteria will raise its profile in your organization. In addition, a third party can be hired to develop and assist with implementing a safety program for the general contractor. They can be an important resource for implementation, training materials and best practices. By making strategic investments in safety training and staff development, they will be best be equipped to help realize the goals of improved site safety conditions.

A Solid Base

The earlier in the process site safety is taken into consideration, the better. No matter how small or large a project, a safety plan should be put in place for the construction staff, employees and visitors. Thinking about the items discussed here in advance should provide a solid base to begin building on. | WA

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