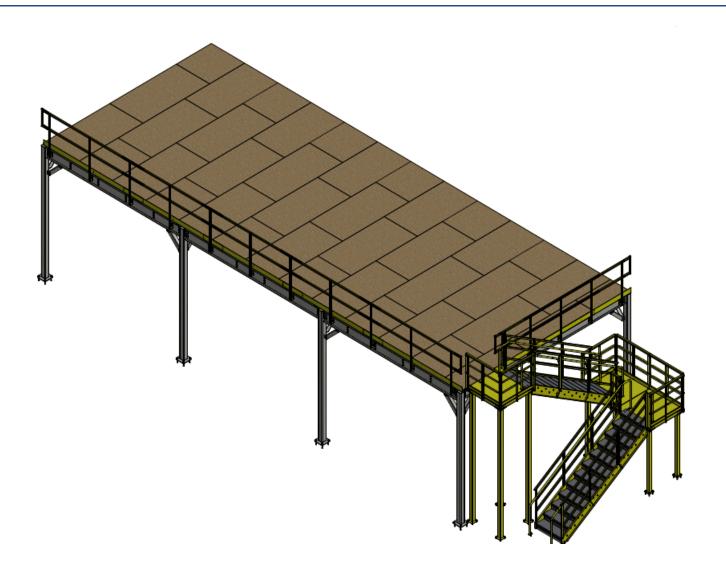


INSTALLATION MANUAL



Product: Work Platforms

- Required tools to install a Bluff Manufacturing work platform.
- Quick tips for product installation.
- Refer to the installation drawings and project specific installation instructions.

TABLE OF CONTENTS

SAFETY	PAGES 3-4
UNLOADING	PAGE 5
TOOLS AND ASSEMBLY	PAGES 6-7
EXAMPLE DRAWINGS	PAGES 8-16
MESSAGE FROM BLUFF	PAGE 17
FINAL SPECIFICATIONS	PAGE 18

FOR SAFETY

SAFETY FIRST

Being safe benefits everyone. No insurance claims, no lawsuits, no pain. To make sure nothing happens, keep the following in mind.

OSHA

Follow OSHA guidelines.

It is important to adhere to OSHA guidelines.

Follow OSHA guidelines.

OSHA can levy fines if you are found out of compliance and fines add up quickly when installation is done without following OSHA guidelines.

Personal protective equipment (PPE)

Every worker should have the appropriate personal protective equipment for the job he is doing at the time. Whether the worker is at height or is using certain equipment, make sure you and your crew understand how important the right PPE is.

- **Hard hat:** Protects against head injury due to falling objects. There are three industrial classes. Class A provides impact and penetration resistance as well as limited voltage resistance. Class B provides the highest level of electrical protection. Class C is a lightweight hat that can protect well enough against impact but has no voltage protection.
- Ear protection (if necessary).
- **Safety goggles:** There are several types, use the type most appropriate to the activity. Includes welding and chipping, cutting spectacles with side shields, tinted lenses, and face shields. NOTE: OSHA specifies that eye and face protection should guard against specific workplace hazards.
- Gloves: Match to the nature of the work. Gloves can come in an array of materials: leather, canvas, mesh, fabric, and rubber.
- **Safety Harness:** Everyone who works at height should be wearing a safety harness. <u>Fall protection on construction sites</u> can include safety belts, lifelines, lanyards, and safety netting. Use the appropriate type for the activity. Check the harnesses regularly for wear and tear.

- o OSHA states, "Lifelines shall be secured above the point of operation to an anchorage of the structural member capable of supporting a minimum dead weight of 5,400 pounds."
- Work boots

Additional safety equipment includes, of course, one or more fire extinguishers. These should be checked regularly for a charge. Near the extinguisher is a good place to keep a first aid kit. The kit should contain, at a minimum:

- Bandages
- Gauze pads
- Antibiotic packs
- Antiseptic wipes
- Flashlight

Train everyone on the use of the personal protective equipment. A basic first aid course wouldn't hurt. You may need more supplies than this depending on the types of injuries that occur most often on your jobsites. **Anytime the first aid kit is used, make sure it is restocked as soon as possible.** If everyone is careful, you won't have to do that too often.

If at all possible, develop and perform a hazard assessment for each jobsite. Identify potential dangers as early as possible and work to mitigate or eliminate them. Put someone in charge of safety who can make sure everyone maintains and uses their protective equipment properly and who maintains the hazard communication policy and practice.

Erecting a metal building, no matter the size, requires attention to safety and the right tools. This post is, by no means, a comprehensive list of what you will need for every job but it does mention many of the tools that will be put to use each day. Consult your erection manual for specifics for your metal building

FOR UNLOADING AND STORAGE

The truck arrives with the mezzanine, which is packaged in pieces and bundles. Getting it off the truck in good shape and arranging it neatly will go much faster and smoother with some basic tools.

Forklift, crane, or other power loader

These bundles are not lightweight. A forklift and some nylon band slings will be needed to offload and transport each bundle to its place.

- When using a crane, make sure you are using a spreader bar of the correct length for the load
- Do not use wire rope slings, this can damage the metal and/or the finish
- Lift each bundle as close to the center of gravity as possible
- If using a forklift, position the load all the way back on the forks. **Do not drive** the forklift with the forks up.
- You may need two forklifts if you are handling beams or other pieces that are over 25 feet long

Blocking

Blocking materials protect the splice plates and the slab from damage while you are unloading. They provide a lift for the materials so you can slip slings or cables around members for lifting. You can also use blocks when bolting together subassemblies while they are on the ground.

Coverings

It's best to put everything under a roof but it that isn't possible, place the panels and members on a plastic ground cover and cover them with a waterproof tarp.

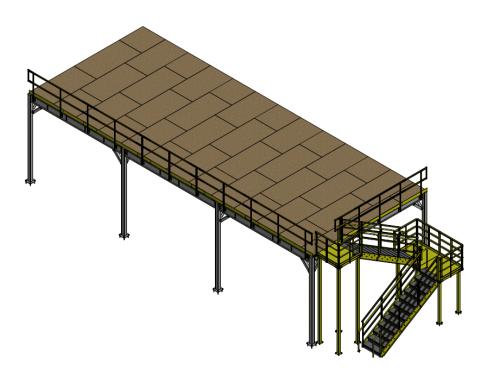
FOR ERECTION AND ASSEMBLY

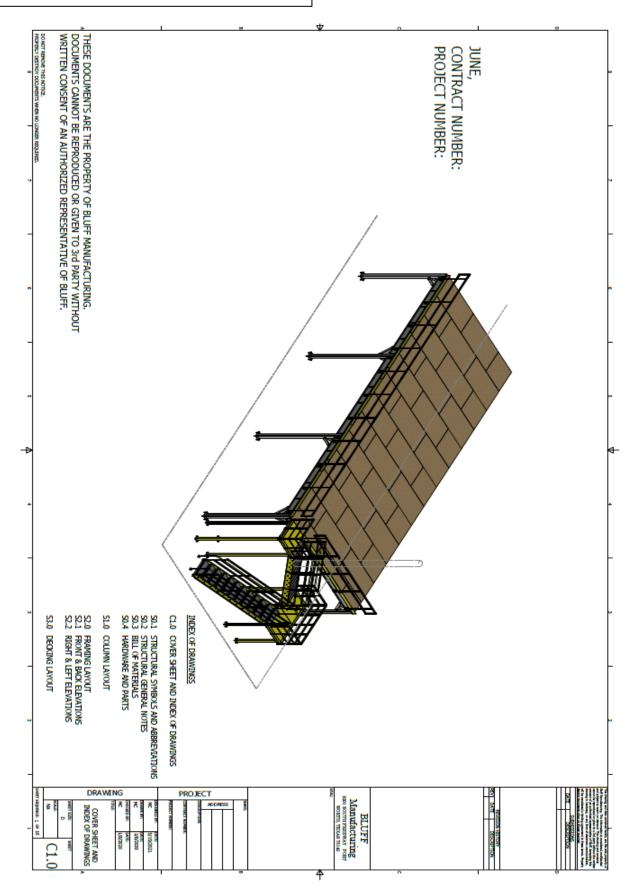
Variable grip wrenches and a cordless drill with a screwdriver bit are two of the most basic tools. Here is a relatively comprehensive list of tools. You won't need all of them for every job. For larger buildings you may need a scissor lift or crane lift.

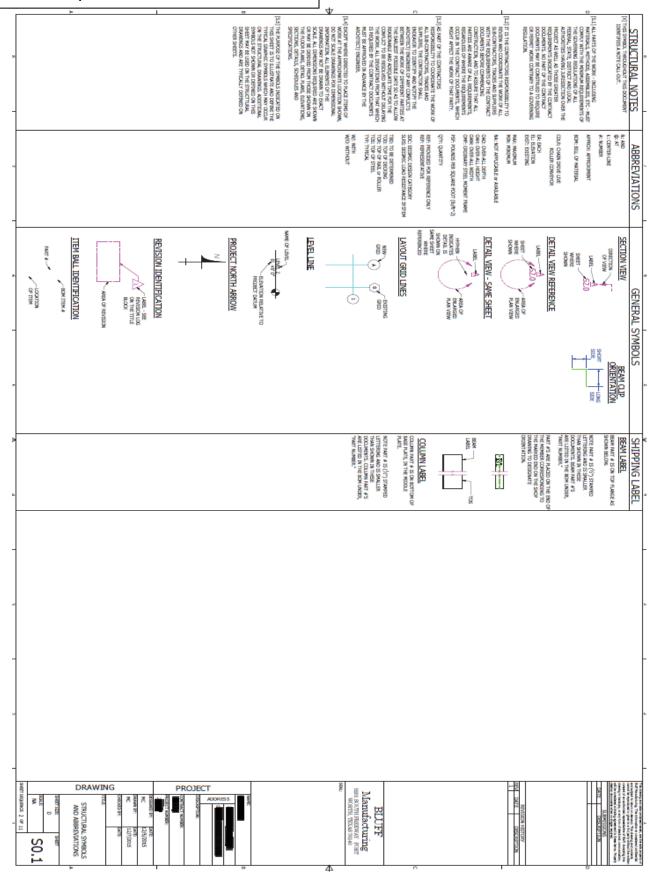
- Wrenches to tighten bolts
- Cordless drill for self-tapping screws as well as drill bits
- Long level to ensure everything is straight
- Spud wrench or large screwdriver to line up bolt holes on main beams
- Hammer
- Pry bar
- Pipe wrench
- Pliers
- Vise-grips
- Screw gun
- Impact or power wrench
- Nibbler electric metal cutter to cut across wall and roof panels(B-Deck, Kick plate)
- Hacksaw
- Push broom and wire brush
- Chalk line
- Channel locks
- Extension cord (#10-3, 2/4 way box, 250 feet long)
- Load binders
- Plumb bob
- Snips (large bulldogs)
- Tape measure (10-25 feet, and 100 feet)
- Ladder
- Chain

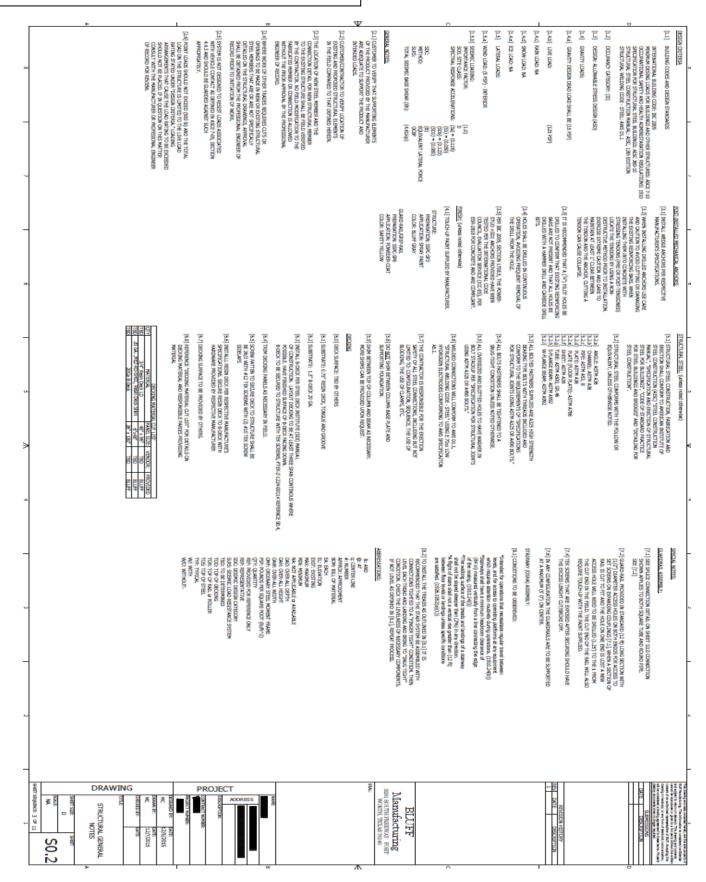
- Rope
- Come-along (power pull)
- Saw horses
- Tarps
- Utility knife
- Crescent wrench
- Socket wrench
- Bull pin
- Tin snips
- Rivet gun
- Roto-hammer
- Air Compressor
- Welding Machine (for onsite welding applications)

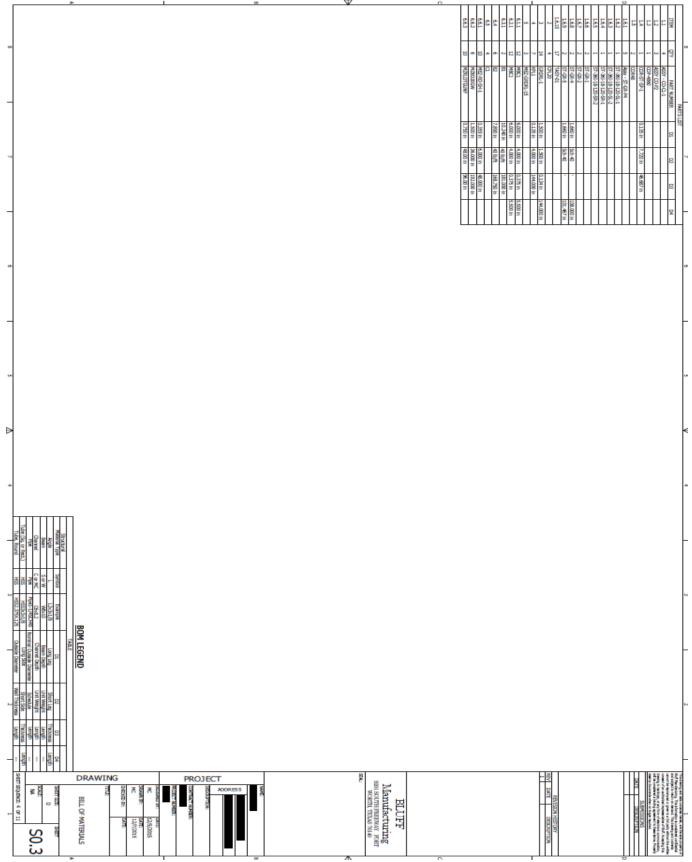
Example of a fully assembled work platform



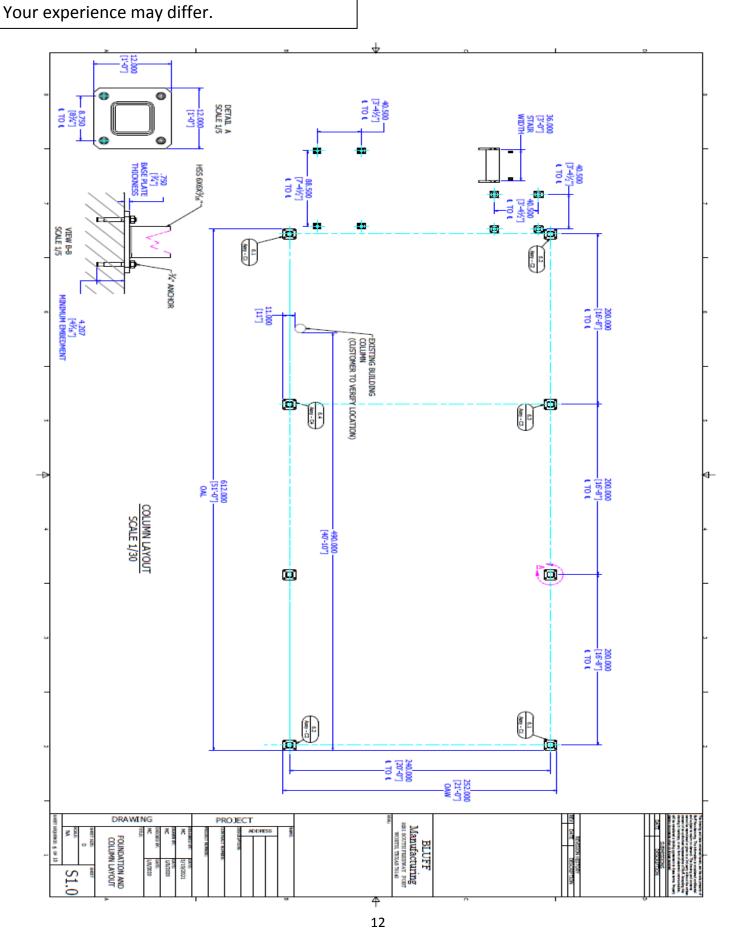


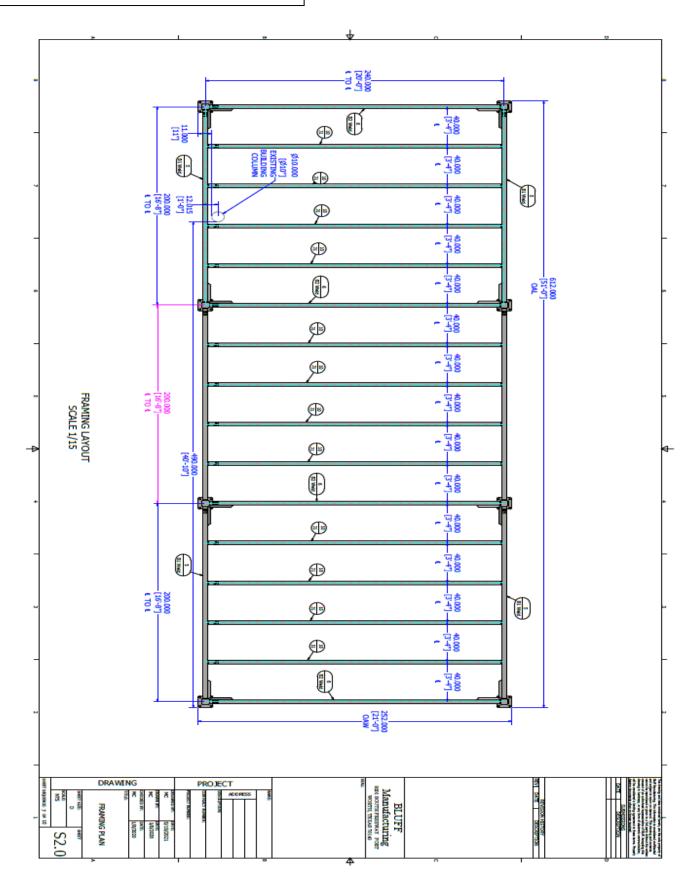


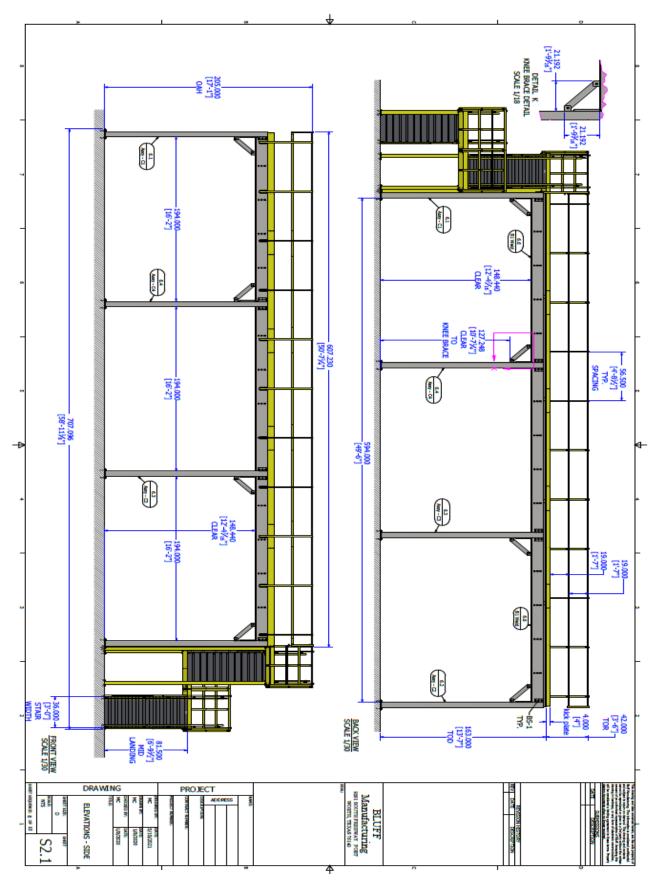


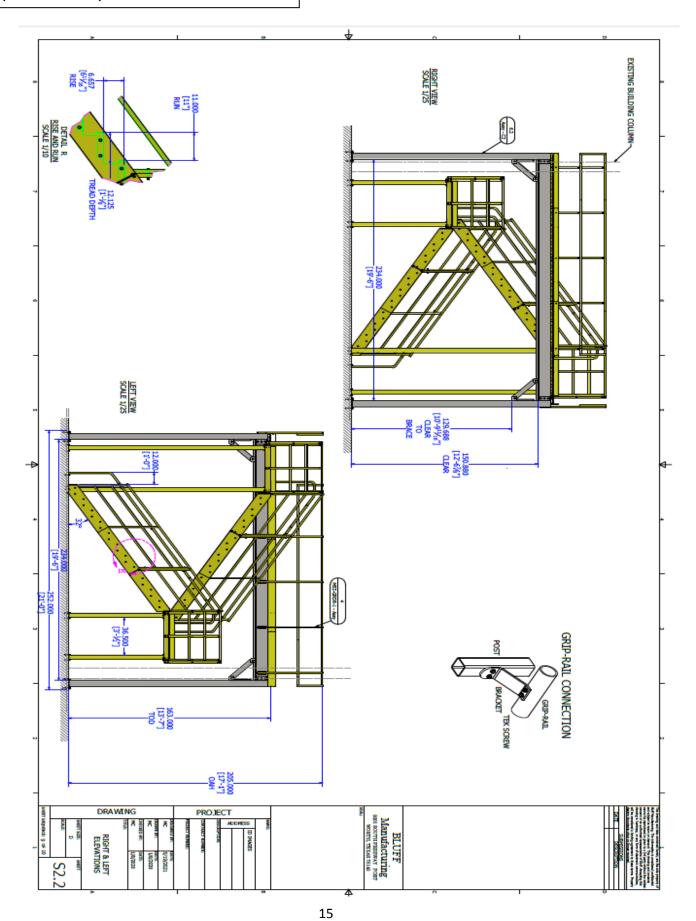


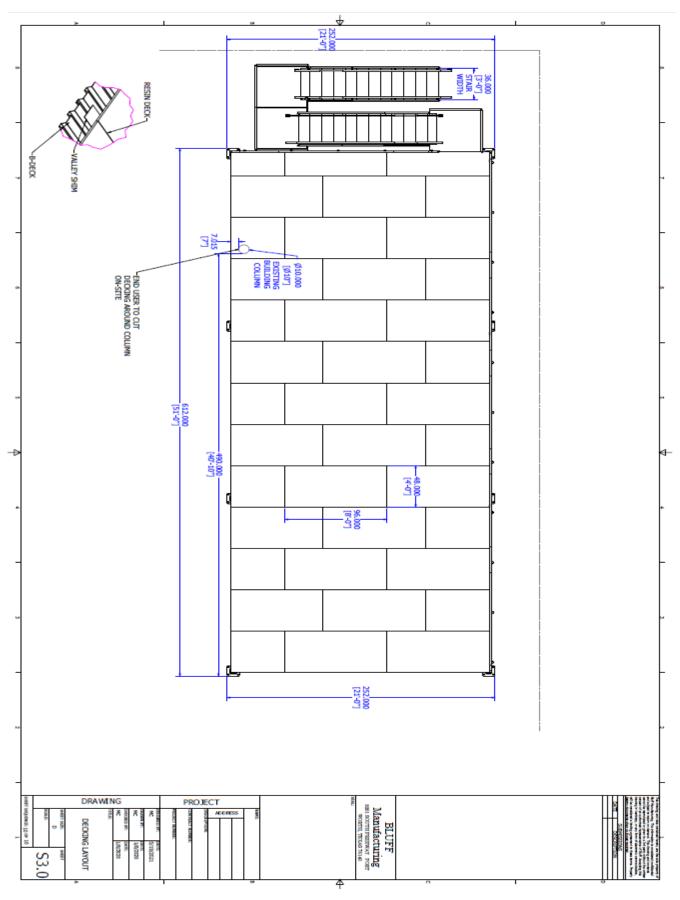
Example of work platform drawings.











CAUTION

IMPORTANT: ANY MODIFICATION TO THE STRUCTURE, WITHOUT
THE MANUFACTURE'S AUTHORIZATION WILL VOID THE WARRANTY OF THE PRODUCT.
IF A MODIFICATION NEEDS TO BE MADE BLUFF WILL NOT PAY MORE THAN \$475
OR 6 HOURS AT \$75 PER HOUR UNLESS AUTHORIZED IN WRITTEN FORM.
IF INSTALLER HAS ANY QUESTIONS OR CONCERNS PLEASE CALL
BLUFF AT 800-433-2212 FOR IMMEDIATE ASSISTANCE.

Final Specifications

All installations should reference project specific dimensions, specifications, and should receive approval of the client. Review all drawings carefully.

Anchor Bolts

Unless specified otherwise, anchor bolts are provided by Bluff
Manufacturing. It is important that the concrete foundation is strong
enough for the fixtures to be installed and installers adhere to the project
drawings.

Bolt Tightening

Bolts must be properly aligned before tightening and should not be over or under torqued. Bolts should not over protrude or fit loose and care should be taken that all bolts on the structure are secure.

