GROSS MECHANICAL

# STRIVING TO REDUCE YOUR TOTAL INSTALLED COSTS THROUGH BETTER FABRICATION PLANNING

**We at Gross Mechanical take pride not just in our service and quality but also in our efforts to add value for our clients.** For example, we believe that it is possible to almost completely eliminate the costs of double handling piping on a project by eliminating the laydown yard. The following examples illustrate the savings that can be achieved, if fabrication and deliveries are planned out so that the piping is shipped when the contractor is ready for it at the point of installation. One example is based on a smaller actual project where these savings realized and the other is the possible savings on a much larger project.

GROSS MECHANICAL

Below we illustrate savings using two methods to calculate costs. In both methods, you can substitute your projects rates/work hours to calculate your own savings. The first method uses total footage of piping as the main variable and the second uses installation hours.

In the smaller project, Gross Mechanical was able to save the client roughly $93,000 by shipping the trucks as needed and unloading them at point of installation. Although shipping this way meant using twice as many trucks, the additional $8,000 spent on trucks saved the client $101,000.

## LAYDOWN YARD COSTS USING LINEAR FOOTAGE TO CALCULATE

| Actual Project | Example Project |
|---|---|
| **Project Details** | |
| Total Footage of Piping: 9164<br>Spool Count: 442<br>Truck Loads of Piping: 25 | Total Footage of Piping: 50,000<br>Truck Loads of Piping:100 |
| **Unloading Piping at Laydown Yard** | |
| 4 workers X 4 hours/truck X 25 trucks X $115/work hour (all in rate) = $46,000 | 100 trucks X 4 workers X 4 hours/truck X $115/work hour = $184,000 |
| **Laydown Yard to Point of Installation** | |
| Truck Loads of Piping: 40<br>(9 work hours/truck to unload + 3 work hours/truck to flag and transport) X 40 trucks X $115/hour = $55,200 | Truck Loads of Piping: 180<br>(9 work hours/truck to unload + 3 work hours/truck to flag and transport) X 180 trucks X $115/hour = $248,400 |
| **Savings** | |
| $101,200 - $8,000 for additional trucking costs<br>**= $93,200** | $432,400 - $50,000 for additional trucking costs<br>**= $382,400** |

## LAYDOWN YARD COSTS USING INSTALLATION MAN-HOURS TO CALCULATE

If you estimate your unloading and hauling based on the installation costs of thepiping, your estimate might look more like this:

| Actual Project | Example Project |
|---|---|
| Installation of Piping: 8163 hours<br>Unloading (5%): 408 hours X $115 = $46,920<br>Hauling (6%): 490 hours X $115 = $56,350 | Installation of Piping: 34,000 hours<br>Unloading (5%): 1700 hours X $115 = $195,500<br>Hauling (6%): 2040 hour X $115 = $234,600 |
| **Savings** | |
| $103,270 - $8,000 (additional trucking)<br>**= $95,200** | $430,100 - $50,000 (additional trucking)<br>**= $380,100** |

These examples demonstrate the value that a fabrication partner like Gross Mechanical can add to your construction projects. In addition to the monetary savings, this methodology will also eliminate the safety risks associated with maintaining a laydown yard.

GROSS MECHANICAL

## We pride ourselves on improving construction through experience and planning. We also strive to add value through:

### CONSTRUCTABILITY

We evaluate drawings and propose new field weld locations when beneficial.

### USABILITY

When we see something that might not be right or that we think a client won't like, we ask questions rather than just fabricating per the drawing.

### BAG AND TAG

We can acquire and ship the appropriate field materials, bagged and tagged by drawing, with the corresponding piping delivery. This allows us to complete this task at shop rates, lowering the cost of field material handling and reducing lost or misplaced material costs.

### SCHEDULE

Frequently we get asked how quickly we can complete a project so that the field contractor can determine when piping must be ordered. Our approach is to get the piping you need when you need it. If a job is 10,000 feet of piping, you don't need 10,000 feet on the first day; you just need 500–1000. This means you don't need to pay for expedited fabrication of piping to make the schedule.

### QUALITY

We know how costly fabrication errors can be when they are discovered in the field or after piping is rigged in place. Through robust quality control we have achieved and maintained a rework rate of <1% for dimensional/orientation errors for the past 5 years.