

# | 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.

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

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

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

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

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.

**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.