INTERFACE
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DAMAGE/QUANTUM ANALYSIS

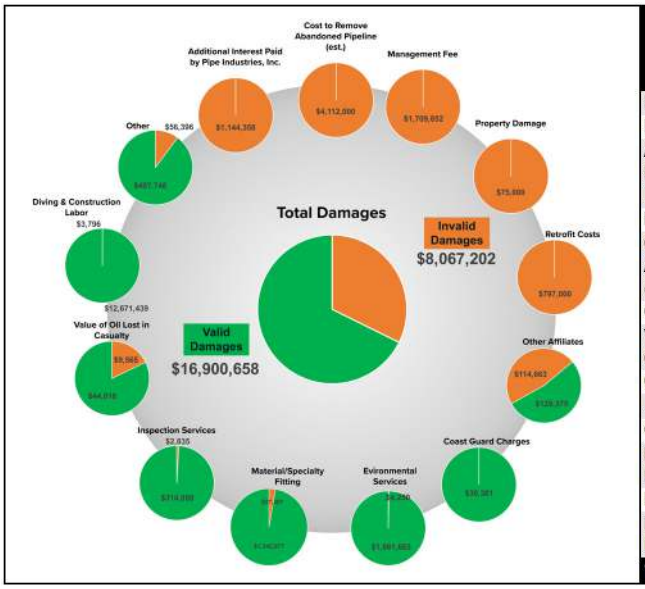
Construction disputes can involve any number of issues relating to design and construction. In many cases, these issues can be highly technical and may not be easy for people unfamiliar with the engineering and construction process to understand. The same is true for determining and quantifying the damages and costs associated with these issues.

In the US, the term damage expert is used; however, on international projects, the term quantum expert is used. The terms damage expert and quantum expert can be used interchangeably. Interface Consulting's experts are experienced and knowledgeable about analyzing and pricing change orders and construction claims during projects, as well as quantifying damages as experts in litigation and arbitration. There are numerous ways to calculate the damages associated with changes, disruptions, delays, and interferences on construction projects. Our consultants are well versed in industry-recognized methodologies. Interface's experience and expertise allow us to determine the most effective methodology to calculate damages, as well as the knowledge to clearly and persuasively communicate those damages in an easy to understand manner.

TYPES OF DAMAGES

There are many types of damages (i.e., cost impacts) that can occur on construction projects including, but not limited to, the following:

- Direct costs (e.g., labor, material, construction equipment, consumables, etc.)
- Indirect costs (e.g., management, warehouse, etc.)
- Extended project costs and general conditions
- Additional home office overhead costs
- Unpaid changes
- Cost escalation
- Additional costs due to labor productivity losses and inefficiencies
- Acceleration costs
- Delay damages



Category	Total Amount Claimed	Invalid Damages	Valid Damages
Property Damage	$ 75,000	$ 75,000	$ -
Retrofit Costs	$ 797,000	$ 797,000	$ -
Additional Interest Paid by Pipe Industries, Inc.	$ 1,144,358	$ 1,144,358	$ -
Management Fee	$ 1,709,852	$ 1,709,852	$ -
Cost to Remove Abandoned Pipeline (est.)	$ 4,112,000	$ 4,112,000	$ -
Coast Guard Charges	$ 39,381	$ -	$ 39,381
Value of Oil Lost in Casualty	$ 53,581	$ 9,565	$ 44,016
Other Affiliates	$ 244,038	$ 114,663	$ 129,375
Inspection Services	$ 316,894	$ 2,835	$ 314,059
Other	$ 554,144	$ 56,396	$ 497,748
Material/Specialty Fitting	$ 1,380,464	$ 37,487	$ 1,342,977
Environmental	$ 1,865,913	$ 4,250	$ 1,861,663
Diving & Construction Labor	$ 12,675,235	$ 3,796	$ 12,671,439
Total	**$ 24,967,860**	**$ 8,067,202**	**$ 16,900,658**

REPRESENTATIVE GRAPHICS

ANALYSIS METHODOLOGIES

There are numerous methods for quantifying damages. In order to determine the most effective methodology for quantifying the damages, our consultants perform a thorough evaluation of the project, including reviews of contemporaneous project records, fact witness testimony, and key project cost and schedule data. Through this analysis, we then assess the proper cause-and-effect relationships for damage allocation, as well as the level of information available to determine which quantification method will most accurately quantify the related damages. Not all situations call for the same damage models and, depending on the situation, our consultants may utilize one or more of the following in their analysis:

- Discrete pricing/actual cost analysis
- Contractual rates
- Total cost/modified total cost
- CPM schedule delay analysis for extended project costs
- Measured mile productivity analysis
- Accepted industry studies for productivity inefficiencies (e.g., MCAA, CII, Business Roundtable, and NECA)

Quantifying damages is important; however, being able to clearly and persuasively explain the damages is equally as important to judges, juries, and arbitrators. Interface's consultants recognize this fact and provide comprehensive analysis of damages and present our findings in a clear and concise manner through demonstrative exhibits and easy to understand graphics and illustrations that simplify complex issues and effectively communicate our findings.

	Change Order Requests to be Submitted to Owner			
	COR #1	COR #2	COR #3	COR #4
Description	Suspension of the work from 9/29/16 through 11/22/16	Productivity losses after suspension of work	Cumulative Schedule Impact of CO's throughout the project	Assignment of Subcontractor
Schedule Impact	55 Days	88 Days	34 Days	124 Days
Monetary Impact	$5,783,361	$9,517,880	$2,900,000 (Paid)	$9,275,000