



ROBERT J. LANE



Robert J. Lane, a Senior Principal for Long International, has over 35 years of experience working in or consulting for the engineering and construction industry. More than half of this time has been involved in the resolution of construction-related claims and disputes. He has expertise in project-related estimating, cost control and scheduling, retrospective schedule analysis, productivity analyses, and quantum/damages analyses. Mr. Lane has also worked in the areas of contract administration, claims management, and overall project and construction management.

Mr. Lane has significant background in the application of the Primavera scheduling systems to proactively develop and update project schedules and/or to retrospectively analyze the impact of various events to a project schedule, including evaluations of entitlement to time extensions, acceleration costs, liquidated damages, and delay-related costs. He has utilized these and other scheduling tools on major construction projects in the U.S. (Lower 48 and Alaska) as well as internationally.

Mr. Lane's construction claims and property damage and business interruption experience includes refineries, gas plants, pipelines, storage facilities, petrochemical plants, offshore platforms, other offshore oil & gas facilities, power plants, transportation projects, and commercial and industrial buildings.

EDUCATION

M.B.A., Business Management and Administration, Pepperdine University, 1983
B.S., Construction Management/Engineering, Purdue University, 1973
A.S., Architectural Engineering, Purdue University, 1971

PROFESSIONAL AFFILIATIONS

Project Management Institute (PMI)
Association for the Advancement of Cost Engineering International (AACCI)

PROJECT EXPERIENCE

Mr. Lane's industry experience involves all phases and types of construction projects. In the petroleum refining, petrochemical, and oil & gas industry, he has worked on production and processing facilities, on-shore and off-shore pipelines, off-shore platforms, compressor and pumping stations, loading/off-loading and storage facilities, and tar sands and synthetic crude oil processing facilities. In the general industrial area, he has been involved with power plants, cogeneration facilities, manufacturing facilities, wastewater treatment facilities, breweries, municipal and commercial buildings, fiber optics installations, airports, landfills, roads, highways, and tunnels. Mr. Lane has been involved in projects with capital budgets in the multi-billions of dollars and claims as large as \$2 billion.

Mr. Lane has often been required to testify and/or provide expert evidence in judicial proceedings, including litigation, arbitration, and mediation of disputes. Areas of testimony in which he has been most active include loss of labor productivity, quantum/damages analyses, schedule analyses, and contract and entitlement analyses.



Representative U.S. and international project experience includes the following:

Refinery Projects, Gas and Chemical Plants and Production Facilities

- Gas Processing Plant, Saudi Arabia – On behalf of the owner, performed analyses and prepared expert reports regarding schedule delays and increased costs associated with an EPC contractor’s \$138 million claim on a gas plant expansion project. The work involved correction of the contractor’s baseline schedule and schedule updates, assessment of impacts allegedly due to change orders, welding defects, late delivery of drawings by the owner, and contractor performance problems. Prepared time impact and as-built but-for schedule analyses to address time extension entitlement, compensable delay, and loss of productivity. Developed a chronological database and assisted the law firm with witness statements and document disclosure requests. Completed a comparative assessment between the project’s radiography records for the rejected pipe joint welds, and the results that were developed from the owner’s Radiography Expert’s interpretation of the films. Evaluated the opposing experts’ schedule delay and damages analyses and assessment of responsibilities for project management performance problems. The dispute was resolved prior to arbitration.
- Gas Processing Plant, Algeria – On behalf of the owner, performed an analysis of the quantum aspects of a contractor’s \$130 million delay and changed conditions claim involving the relocation of a \$700 million natural gas processing plant project site in Algeria after construction had commenced because of the discovery of unfavorable soil conditions. The owner counterclaimed delay damages because the plant was completed late. Issues involved alleged increased quantities for earthworks and pipelines in the new site location, subcontract labor man-hours and costs, engineering and construction management man-hours and costs, and associated delay, productivity loss, and other costs, and whether the contractor had sufficient documentation to support its claims. The owner alleged bid error by the contractor and inadequate and incorrect quantum calculations to support its claimed costs. Supported the preparation of an expert report and rebuttal expert report, which were submitted in ICC arbitration in Paris, France. The owner received a favorable award at arbitration.
- Chemical Plant, Louisiana – Prepared an entitlement analysis, an as-built, but-for schedule analysis, and an evaluation of damages for a contractor’s claim related to the construction of two process units in an existing chemical plant. Also provided expert testimony (at deposition) on behalf of the owner relative to the analyses performed and related findings and opinions.
- Refinery, Abu Dhabi, United Arab Emirates – Evaluated a contractor’s delay and disruption claim against a major equipment supplier including a review and analysis of the as-planned and as-built schedules, preparation of a retrospective as-built, but-for analysis of the project schedule, and an assessment of damages relative to the expansion of a refinery.
- Refinery, Mexico – Reviewed and critiqued contractor-prepared change requests, prepared a preliminary evaluation of the contractor’s costs to date, and performed a detailed as-built, but-for analysis of the project schedule to establish a reasonable completion date (absent supplier-caused delays) for the expansion of a refinery.
- Chemical Plant, Texas – Reviewed and evaluated a contractor’s request for loss of labor productivity labor costs associated with RFIs and change orders, a time extension and additional compensation related to the revamp of piping systems for a styrene chemical plant. Completed an evaluation of entitlement, prepared a time impact schedule analysis, assessed the contractor’s loss of productivity, and developed an assessment of compensable damages. Also provided expert testimony (at deposition) on behalf of the contractor relative to the analyses performed and related findings and opinions.



- Production Facilities, Alaska – Evaluated the merits of a \$2 billion tax petition relative to the dismantlement of oil production and related facilities on the North Slope of Alaska. The evaluation included a review and critique of the overall dismantlement, removal and restoration plan, estimated quantities of work, labor and equipment costs, logistics and transportation, disposal of scrap and salvaged materials, and the dismantlement schedule.
- Floating Production, Storage and Off-loading Facilities, Brazil – Reviewed, analyzed and critiqued a contractor’s baseline schedule and schedule updates related to \$750 million in claims for disruption, delays, changed conditions, and increased costs on a lump sum turn-key contract.
- Off-shore Rig Conversion, Venezuela – Analyzed the project schedule (i.e., performed a time impact schedule analysis) including engineering, procurement, fabrication, assembly, shipping, installation and commissioning activities relative to delays and disruptions to the conversion of three offshore drilling rigs into gas compression stations.
- Fertilizer Plant, Iraq – Coordinated the preparation of multiple contractor claims and the evaluation of subcontractor claims including preparation of a computerized document database, analysis of project costs and schedules, report preparation and negotiation of claims related to the design, procurement and construction of a fertilizer plant.
- Refinery, Alberta, Canada – Provided contract/entitlement analyses, schedule review and risk assessment, for the owner, relative to the design, procurement, and construction of a synthetic crude oil refinery.
- Chemical Plant, Texas – Provided estimating support as well as cost and schedule analyses for a \$350 million property damage claim involving an explosion and fire-damaged chemical plant. Additional responsibilities included developing a computerized database, preparing final reports and providing advice and guidance during negotiations between the owner and the insurers.
- Chemical Plant, Louisiana – Performed an analysis of entitlement, schedule delay and damages related to a contractor’s \$12 million claim against a major international chemical company associated with the construction of process units in an existing chemical plant. The initial EPC contractor was terminated, and sought recovery of its cost overruns as a result of field change orders. The owner alleged that the work was defective as a result of engineering errors, field installation errors, and welding defects.
- LNG Facility, Singapore, and Spain – On behalf of the owner, performed an analysis of a \$15 million cost overrun and cumulative effect claim by an electrical subcontractor on an electrical and instrumentation building to be installed offshore on an LNG facility. The subcontractor alleged increased complexity of the work, loss of productivity and delays associated with changes to its scope of work, and subsequent acceleration. The owner alleged that the changes did not cause the alleged quantum sought by the subcontractor, and that the subcontractor underbid the work and mismanaged its resources.
- Oil Terminal Project, Canada – On behalf of the owner, performed an analysis of causes of cost overruns incurred by the contractor on an oil terminal project in Alberta. Reviewed and compared bid package drawings with Issued for Construction drawings, welding data, and other information to determine if the owner had a basis for disputing the contractor’s costs. Participated in mediation to resolve the dispute.
- Refinery Project, Trinidad – Performed an analysis of a major international contractor’s \$22 million delay and disruption claim on a \$100 million refinery upgrade project involving new hydrotreater and sulfur recovery units. Prepared a detailed schedule delay analysis and damage analysis.



Pipeline Projects

- Pipeline Project, Illinois – Provided litigation support and expert testimony (at deposition) related to the review and evaluation of a contractor’s claim for disruption, delay and increased costs associated with the construction of a 28 mile, 36-inch diameter pipeline.
- Offshore Pipeline, Gulf of Mexico – Evaluated the impact of a labor strike to daily productivity and progress on a lay barge, and identified other project events that may have contributed to the negative impact on the project schedule. Also provided expert testimony (at deposition) on behalf of the labor union related to these issues.
- Pipeline, Montana – Evaluated a horizontal directional drilling contractor’s plan as well as its actual execution of a drilled crossing of a creek and wetland area and provided expert testimony (at deposition) related to the plan, the execution, recommended guidelines, industry standards, and liability for the breach of an existing pipeline, the resulting release of product, and the damage to the environment.
- Pipeline and Related Facilities, Alaska – Provided estimating and technical assistance during the preparation of the \$40 billion Certification Cost Estimate for the engineering, procurement, and construction of approximately 750 miles of 48-inch gas pipeline, compressor and metering stations, and the communications systems for a proposed project to bring natural gas down from the North Slope to Canada.
- Pipeline and Associated Facilities, Alaska – Prepared a definitive estimate, a detailed schedule and a comprehensive report for the dismantlement, removal and restoration of the Trans-Alaska Pipeline System including the oil pipeline, vertical support members, pumping stations, the Valdez terminal and maintenance facilities; and provided expert testimony at formal hearings held with the Federal Energy Regulatory Commission and the Corps of Engineers.
- Pipeline Project, California – Evaluated a contractor’s claim for environmental and permitting delays, disruption to work activities, changes in scope, and changes in alignment associated with the construction of 70 miles of 20-inch diameter pipeline. The assignment also included the identification and systematic evaluation of major engineering and construction problems and their cause/effect relationship on cost overruns and schedule impacts.
- Gas Gathering/Distribution Systems and Gas Processing Facilities, Kuwait – Superintendent with responsibility for the construction of a pipeline network to gather and transport gas from the well head, a new gas processing facility, and a pipeline network to distribute the processed gas to end users.
- Pipeline Project, California/Texas – Prepared a cost estimate and schedule for the engineering, procurement, and construction of an artificial island, marine off-loading facilities, sub-sea pipeline, 1,500 miles of 30-inch land pipeline, pumping stations, a communications system, a terminal, and storage facilities for a proposed pipeline project.
- Pipeline Project, Oklahoma – Field engineer with responsibility for the evaluation of pipe welding problems and the documentation of increased costs associated with rework, extra work, labor inefficiency and extended site overhead costs.
- Pipeline Projects, Wisconsin and Utah – Field engineer with responsibility for the documentation of out-of-spec conditions associated with the owner-furnished line pipe. Also had responsibility for the punch-out and completion of compressor stations, the hydrostatic testing of the stations and a pipeline, and the commissioning and start-up of the system.
- Pipeline Project, Kuwait – Prepared a cost estimate and schedule for the engineering, procurement, and construction of a project consisting of 2,500 kilometers of 24-inch, dual-flow pipelines, compressor and pumping stations, an on-shore storage terminal, offshore pipelines, and a marine loading facility.
- Pipeline Project, Canada – Evaluated cost overruns and productivity issues associated with the construction of 30 and 36-inch pipelines in British Columbia and Alberta.



Industrial and Power Projects

- Cement Manufacturing Facility, Texas – Prepared a detailed evaluation of project costs and schedule (i.e., time impact and as-built, but-for analyses), and prepared requests for equitable adjustment against the owner and an equipment supplier relative to the design, procurement, construction and start-up of a cement manufacturing facility. Also provided expert testimony (in arbitration) related to defective design, late and out-of-sequence deliveries, extra work, disruptions to the work, and delayed completion of construction.
- Cogeneration Facility, Florida – Prepared an entitlement analysis and a preliminary analysis of schedule and damages associated with delays and disruptions experienced by an insulation subcontractor during the construction of a cogeneration project.
- Calciner Plant, Canada – On behalf of the owner, performed an audit of the EPCM and general contractor's cost records to identify potential billing discrepancies and problems on cost reimbursable contracts for a Calciner expansion project.
- Power Plant, West Virginia – Provided entitlement analysis and evaluation for back charges, for a contractor, related to the supply of equipment for a hydroelectric power plant.
- Landfill, California – As a neutral, third party, analyzed and evaluated a contractor's claim relative to entitlement, costs, and compensable damages associated with the completion of a landfill remediation project. Facilitated settlement and the successful resolution of the claim.
- Fiber Optics, Arkansas – Provided arbitration support and expert witness testimony (at deposition), including an analysis of damages for claim issues related to the installation of an underground fiber optics network.

Building Projects

- High School, New York – Prepared a request for an equitable contract adjustment including an entitlement analysis, a time impact analysis, an as-built, but-for schedule analysis, and an assessment of damages to assist an electrical contractor obtain a time extension and compensation for delays experienced during the construction of a high school. Subsequently, provided expert testimony (at trial) on behalf of the contractor relative to schedule delays, disruptions and damages resulting from the owner's active and detrimental interference during the performance of its "no damages for delay" contract.
- Judicial Complex, Saipan, Northern Mariana Islands – Prepared a request for an equitable contract adjustment including an entitlement analysis, a windows-based, as-built, but-for schedule analysis, and an evaluation of damages related to the construction of a municipal facility. Also provided expert testimony (at deposition) on behalf of the contractor related to entitlement, owner-caused impacts to the project schedule including changes in scope, damages, and the owner's assessment of liquidated damages against the contractor.
- Convention and Exhibition Center, Massachusetts – Evaluated an owner's planned schedule and prepared a retrospective windows analysis using the updated and as-built schedules in order to assess the validity of the owner's claim against the design team for increased costs related to acceleration, labor inefficiency, and expediting premiums allegedly resulting from design errors and omissions that were identified during construction. Also provided expert testimony (at deposition) on behalf of the design team related to the impact, of a fast-track schedule and changes, on the design team's ability to progress its work.
- Civil Engineering Complex, Montana – Provided litigation support including an evaluation of a general contractor's claim against its subcontractor for alleged schedule delays and damages related to the construction of a civil engineering complex. Also provided expert testimony (at deposition) related to the retrospective analysis of the project schedule and the validity of the contractor's alleged damages.
- Office Complex, New Jersey – Reviewed and evaluated a contractor's claim associated with the installation of a building management system for a new office complex.



- Prison, New York – Prepared a request for an equitable contract adjustment to assist an electrical and security contractor obtain a time extension and compensation for delays experienced during the construction of a prison project. The assignment included an entitlement analysis, an as-built, but-for schedule analysis, and an assessment of compensable damages.
- Bio-Research Facility, Massachusetts – Evaluated a contractor’s delay claim as well as the owner’s claim against the architect for errors and omissions related to the design and construction of a bio-research facility.
- Hospital, Michigan – Determined compensable damages for a major mechanical and electrical subcontractor related to delays and disruptions encountered during the construction of a hospital project.
- Civic Center Complex, California – Provided entitlement analysis, damage evaluation and negotiation of change orders related to the construction of a civic center complex which included a library, jail, fire station, and city hall.
- High School, Guam – Evaluated scope changes and assessed compensable damages, for an electrical and mechanical subcontractor, related to delays and disruptions encountered during the construction of a high school.

Transportation Projects

- National Forest Access Road, Wyoming – Provided litigation support and expert witness testimony (at deposition), including determination of recoverable damages related to the construction of a national forest access road.
- Marine Port, Saipan, Northern Mariana Islands – Prepared a contractor’s request for an equitable contract adjustment for changes in the scope and execution of the work required by a major redesign of marine harbor facilities for a port project.
- Infrastructure Improvements, Colorado – Evaluated a contractor’s claim for disruption and delay as well as the increased costs associated with the installation of underground utilities and street modifications for an infrastructure improvement project.
- Airport, Colorado – Completed a bid estimate review and an evaluation and critique of civil work including mass cut, haul and fill operations related to a contract at the Denver International Airport.
- Highway, Pennsylvania – Provided contract/entitlement analysis and schedule analysis for construction of an interstate highway. Construction activities analyzed included clearing, grading, cut and fill operations, and concrete work for bridges.



PROFESSIONAL EXPERIENCE

Long International, Inc.

Littleton, Colorado (July 2006 to Present)

Mr. Lane, a Senior Principal for Long International, has performed numerous claims analysis and provided dispute resolution services on a wide variety of projects for owners and contractors. Specific responsibilities include job cost analysis, cost estimating, productivity analysis, change order evaluation, CPM schedule analysis, damage calculations, preparation of expert reports, negotiation and mediation assistance, and expert testimony in support of arbitration and litigation proceedings.

Lane & Associates, LLC

Parker, Colorado (January 1995 to July 2006)

As Director of Advisory Services for Lane & Associates, Mr. Lane's primary services focused on the resolution of contract and insurance-related claims and included: contract and entitlement analyses, problem evaluation, schedule analysis, determination of damages, negotiation and mediation assistance, discovery assistance and database preparation for project documentation, preparation of expert reports, and expert testimony in support of arbitration and litigation.

Hill International, Inc.

Englewood, Colorado (June 1993 to January 1995)

Mr. Lane was a Vice President of Hill International, Inc. based in Denver. The focus of the Denver office was on providing construction claims analysis and contract dispute resolution services for major construction and environmental projects. Services included: discovery assistance and database preparation for project documentation, contract and entitlement analyses, schedule analysis including delay, productivity, and impact assessment, determination of damages, preparation of expert reports, negotiation and mediation assistance, and expert testimony in support of arbitration and litigation.

Kellogg Corporation

Littleton, Colorado (April 1988 to June 1993)

Mr. Lane was a Senior Principal of Kellogg Corporation, where he was Principal-In-Charge of the Dispute Services Business Unit, with overall responsibility for the management of dispute-related projects. While in this position, Mr. Lane personally managed numerous dispute resolution projects with claims ranging from \$150,000 to over \$2.0 billion. Projects included chemical and petrochemical facilities, pipelines, refineries, hydroelectric power plants, breweries, municipal and commercial buildings, fiber optics installations, airports, landfills and roads, highways and tunnels.

United Engineers & Constructors: Stearns-Roger Division

Littleton, Colorado (June 1985 to April 1988)

Mr. Lane was assigned to the Gaviota Gas Plant Project in California where he analyzed subcontractor claims, and prepared change orders for scope and execution changes. As a project estimator, Mr. Lane assisted in the negotiation of subcontractor extra work claims for module fabrication on the Kuparuk project, North Slope of Alaska; and prepared a preliminary cost estimate for water supply and sewage treatment facilities for the Eastern El Paso Water project.



Santa Fe International, Inc.: SF/Braun Division

Orange, California (April 1984 to June 1985)

As contracts manager, Mr. Lane prepared contract documents and requests for proposal for lump sum construction contracts for civil/structural work, pipelines and related facilities for the Endicott project, North Slope Alaska. As project estimator, Mr. Lane prepared estimates for construction of marine loading facilities and on-shore and off-shore pipelines for the RMP/Mina Abdulla project, Kuwait; prepared an estimate for construction of pipeline facilities for the Kuparuk project, North Slope of Alaska; and prepared estimates for construction of manifold modules for the Lisburne project, North Slope of Alaska.

Fluor Engineers, Inc.

Irvine, California (April 1980 to April 1984)

As principal estimator, Mr. Lane prepared a detailed report, definitive estimate and schedule for the dismantlement, removal and restoration of the Trans-Alaska Pipeline System including the oil pipeline, vertical support members, pumping stations, the Valdez terminal and maintenance facilities; and provided expert testimony at formal hearings held with the Federal Energy Regulatory Commission and the Corps of Engineers.

As lead cost and schedule engineer, Mr. Lane developed and implemented cost and manpower budgets; prepared and statused major milestone and multi-level schedules; monitored, reported and analyzed cost, progress and performance; and prepared forecasts, trends and change orders for the planned Alaskan Natural Gas Transportation System (ANGTS) project, Alaska.

As lead estimator, Mr. Lane prepared scopes of work for engineering/design and field programs subcontracts and prepared preliminary construction subcontract packages. Mr. Lane also assisted with construction planning, and preparation of a project execution plan as well as the preparation of the Certification Cost Estimate for the engineering, procurement and construction of temporary facilities, a gas pipeline, compressor and metering stations and the communications systems for the ANGTS project.

Santa Fe International, Inc.: Santa Fe Construction Division

Aurora, Colorado (April 1974 to April 1980)

Mr. Lane's prime responsibility as chief engineer/estimator was to supervise the estimating staff in the development of cost estimates and proposals for construction of domestic and foreign projects executed under lump sum, unit price and reimbursable contracts. Projects consisted of gas, product and water pipelines, water and CO₂ injection systems, compressor and pumping stations, refinery and terminal modifications and other related facilities; prepared, awarded and administered construction subcontracts; compiled data, analyzed and negotiated claims and change orders; and monitored field work in progress. Mr. Lane also completed several domestic field assignments as well as foreign assignments in Kuwait, Saudi Arabia and South Africa where he held positions as a construction superintendent, a bending foreman/engineer, a field engineer, a cost and scheduling engineer and an estimator.



PUBLICATIONS AND GUEST LECTURES

“The Basic Ingredients for Project Success,” *Construction Briefings*, 1996.

“Cause-Effect Analysis for Delay and Disruption Claims,” *Construction Briefings*, 1994.

“Avoidance and/or Mitigation of Construction Claims,” a One-Day Seminar, Colorado Department of Transportation, 1993.

“Differing Site Conditions,” *Construction Briefings*, 1992.

“Preventing/Resolving Construction Claims,” a Two-Day Seminar, University of Southern California, San Diego, 1990.

“Damage Recovery Using the Modified Total Cost Method,” *KC-News*, co-authored with Richard J. Long, P.E., 1990.