



# HALLIWELL

## CALVIN C. THOMAS JR., P.E.

ASSISTANT DIRECTOR, ENGINEERING SERVICES

BATON ROUGE, LA

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### SPECIALTIES

- Large Complex Loss
- Litigation/Expert Witness
- Structural Engineering Investigations of Commercial Buildings, Schools, Sports Facilities, Parking Garages, Refinery and Chemical Plant Process Structures, ISBL/OSBL Pipe Racks, Tank Farm Areas, and Equipment Foundations
- Construction Defect Investigations
- Building Code Analysis
- Construction Document Review and Analysis
- Construction Means and Methods Analysis
- Construction and Project Management Assessments
- Procurement Analysis for Critical Path Schedule
- Building Envelope Failure Investigations
- Building Code Analysis
- Standard of Care for Design Professionals
- Damage Assessments for Wind / Fire / Explosions
- Cause and Origin Evaluations
- Repair vs Replacement Analysis

### BIOGRAPHY

Calvin is a licensed Professional Engineer with over 40 years of experience in the field of structural engineering design and forensic evaluations. His specialties include Large Complex Loss and Litigation. He has performed the structural engineering design of commercial buildings, sports facilities, casinos, schools, new and brown field expansions of refineries and chemical plants and has led numerous forensic investigations. In addition, he has refinery Project Management experience including Front End Loading (FEL) 1 to 4 estimates, modular design and construction, interface management, economic evaluation, concept to detailed design, procurement, constructability, construction, and Global Integrated Delivery (GID). He specializes in forensic investigations to determine the cause and origin of structural failures on commercial, refinery, and chemical plant structures.

### QUALIFICATIONS

Master of Science - Civil Engineering, Louisiana State University

Bachelor of Science - Civil Engineering, Louisiana State University

### INDUSTRY CERTIFICATIONS, LICENSES AND MEMBERSHIPS

- Licensed PE: LA, FL, AR, MS, AL, GA, SC, KY, TX, CO, UT, AZ, WY, NC, NM, OK, MO, MI, ID, IL, NV, IN, OH, MT, VA, RI, and WA

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### ASSISTANT DIRECTOR, ENGINEERING SERVICES

#### PROFESSIONAL EXPERIENCE

- Halliwell, Senior Forensic Engineer, Civil / Structural Engineering Services
- EFI Global – Large Complex Loss, Senior Principal Engineer
- ESI, Senior Consulting Engineer
- Thomas Forensic Engineering Inc., Owner & Chief Engineer
- Jacobs Engineering / Worley, Project Manager / Civil / Structural Engineering Department Manager
- Thomas & Luth Structural Engineers Inc., Owner & Chief Engineer
- Schrenk & Peterson, Senior Structural Engineer
- CDI Engineering, Civil / Structural Engineering Department Manager
- Jacobs Engineering, Supervising Principal Engineer
- Walter P. Moore & Associates, Associate
- Huck & Ragland Structural Engineers, Associate
- Rayner & McKenzie Structural Engineers, EIT

#### REPRESENTATIVE ASSIGNMENTS

##### Hurricanes & Tornadoes

###### **Fair Grounds | Churchill Downs | New Orleans, LA**

Investigation to determine extent of structural damage to the Churchill Downs Fair Grounds including the Derby Buildings, Grandstand, Clubhouse, Casino, and Backstretch Buildings due to Hurricane Ida.

###### **The Whitney Hotel | Generation Holdings, LLC | New Orleans, LA**

Investigation to determine the extent of structural damage to the seven-story Whitney hotel due to Hurricane Ida.

###### **New Iberia Medical Center | Hospital Service District No 1 of Iberia Parish | New Iberia, LA**

Investigation to determine the extent of structural damage to the hospital complex due to an EF-2 tornado.

###### **East End Lofts | Kayne Anderson Real Estate Advisors | Houston, TX**

Investigation to determine the extent of structural damage to six apartment buildings varying from three-story to five-story buildings due to wind.

###### **Apartment Buildings | Mindlin Companies Real Estate Services, Inc. | St. Louis, MO**

Investigation to determine extent of structural damage to twelve apartment buildings varying from three-story to seventeen-story buildings due to an EF-3 tornado.

###### **Hollywood Casino | Penn National Gaming | Gulfport, MS**

Investigation to determine extent of structural damage to all commercial properties onsite due to Hurricane Katrina.

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### **Solar Panel Farm | NextEra Energy | North Lake Village, AR**

Investigation to determine extent of structural damage to solar panel farm on the 900-acre site due to an EF-2 tornado.

### **Plaquemine City Hall Building | Iberville Parish Council | Plaquemine, LA**

Investigation to determine the extent of structural damage to the four-story City Hall building due to Hurricane Ida.

### **Southmont Cove | Southmont Cove at Lexington | Fort Myers, FL**

Investigation to determine the extent of structural damage to ten three-story buildings due to Hurricane Ida.

### **Moss Point High School | Moss Point School District | Moss Point, MS**

Investigation to determine extent of structural damage to the high school complex due to an EF-2 tornado.

### **Impact**

#### **Parking Garage | Loyola University | New Orleans, LA**

Investigation to determine the extent of structural damage to the concrete parking garage due to a vehicle impact on the third level of the parking garage.

#### **Metal Building Warehouse | Assured Flooring | Baton Rouge, LA**

Investigation to determine the extent of structural damage to the metal building due to a vehicle impact to the building.

#### **Coffee Shop | Coliseum Development LLC | New Orleans, LA**

Investigation to determine the extent of structural damage to the two-story building due to a vehicle impact to the building.

### **Fire (Commercial Buildings)**

#### **Benoit Ford Dealership | Benoit Ford LLC | Deridder, LA**

Investigation to determine extent of structural damage to the car dealership due to a fire.

#### **Chateau Napoleon Apartments | Ohio Management | Metairie, LA**

Investigation to determine extent of structural damage to three-story apartment building complex due to fire.

#### **Dollar General Store | Dollar General Corporation | Bogalusa, LA**

Investigation to determine extent of structural damage to the one-story building due to fire.

### **Commercial Structural Engineering Design**

#### **LSU Tiger Stadium West Side Upper Deck Expansion | Baton Rouge, LA**

Engineer of Record for the upper deck stadium addition including three levels of stadium club seating with a new press level and an upper deck expansion making venerable Tiger stadium the fifth largest college stadium in the United States.

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### ASSISTANT DIRECTOR, ENGINEERING SERVICES

#### **LSU PMAC Basketball Practice Addition | Baton Rouge, LA**

Engineer of Record for the project included a press room, two gyms, training areas, and coach's offices for the LSU Men's and Women's basketball teams.

#### **Hollywood Casino Central Plant & Back of House Additions | Bay St. Louis, MS**

Project Manager for new two-story (141,000 sq ft) steel framed land based back of house additions.

#### **Joseph Davies Elementary School | Meraux, LA**

Engineer of Record for the new one-story (85,000 sq ft) steel framed structure on composite timber pile foundations.

#### **Fountain Park Centre Office Building E | Harvey, LA**

Engineer of Record for the new two-story (48,000 sq ft) steel framed structure on timber pile foundations.

#### **SunTrust Bank | Tampa, FL**

Project Manager for the new thirty-five story (824,000 sq ft) cast in place concrete office building on precast piling foundations in downtown Tampa.

#### **One Waterford Place | Miami, FL**

Engineer of Record for the new ten-story (275,000 sq ft) cast in place concrete office building on precast piling foundations adjacent to Miami International Airport.

#### **One Waterford Place Parking Garage | Miami, FL**

Engineer of Record for the new five-story (325,000 sq ft) parking garage on precast piling foundations.

#### **University of South Florida Eye Institute | Tampa, FL**

Engineer of Record for the new four-story (120,000 sq ft) cast in place concrete building on continuous footings.

#### **Tampa Convention Center | Tampa, FL**

Structural engineer responsible for the 180-foot span steel truss design over the convention level floor and the lateral system design for sections of the new 550,000 sq ft building.

#### **Fire and Explosion (Refineries)**

##### **Hydrocracker Unit Rebuild | Mobil Oil | Chalmette, LA**

Investigation to determine the extent of structural damage to the two-stage hydrocracker unit due to fire and the on-site redesign required to rebuild the two-stage hydrocracker unit.

##### **Aethon Energy Operating LLC | Aethon Energy | Hall Summit, LA**

Investigation to determine the extent of structural damage due to an explosion and fire at the site.

##### **Wynnewood Refining Company LLC | Wynnewood Refinery | Wynnewood, OK**

Investigation to determine the extent of structural damage due to an explosion and fire at the site.

##### **Pinon Midstream LLC | Dark Horse Facility | Lea County, NM**

Investigation to determine the extent of structural damage due to an explosion and fire at the site.

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### Tank and Structure Foundation Settlement

#### **Methanex G1 Project | Methanex | Geismar, LA**

Resolved concerns associated with the settlement of tank foundations, pump foundations, several process structure foundations, and the OSBL pipe racks. Resolved/mediated questions/concerns associated with several buildings in different stages of construction.

### Industrial Structural Engineering Design

#### **OCC Project | BP Whiting Refinery | Whiting, IN**

Managed the structural design of the project designed in Baroda, India. Design included 168 steel modules for multi-story process units and ISBL modular pipe racks.

#### **Benzene Reduction Project | Conoco Phillips Refinery | Bayway, NJ**

Engineer of Record for the ISBL steel modular multi-story process unit and multiple OSBL modifications including tank farms.

#### **GBL/NMP Capacity Increase Project | BASF | Geismar, LA**

Engineer of Record for the new grass roots multi-story steel modular ISBL process unit.

#### **Rehabilitation of Production Floors Project | American Cyanamid | Milton, FL**

Rehabilitation of existing cast in place concrete production floors.

#### **Hydrocracker Plant Expansion Project | Mobil Oil Refinery | Chalmette, LA**

Engineer of Record for the new 10,000 HP cast in place concrete reciprocating compressor foundation supported on steel pipe piling and the associated steel decking.

#### **Flare Vapor Recovery Project | Shell Refinery | Norco, LA**

Engineer of Record for two new 10,000 HP cast in place concrete reciprocating compressors, a new steel framed process unit, and OSBL steel pipe rack modifications and additions.

#### **Cooling Tower Upgrade (20,000 GPM Tower) Project | Mapco Refinery | Memphis, TN**

Engineer of Record for the new cast in place concrete cooling tower design and the associated OSBL steel piping tie-ins.

#### **Aniline Plant Facility | BASF | Geismar, LA**

Engineer of Record for the new grass roots plant including several multi-story steel framed process structures, a tank farm, and new interconnecting ISBL and OSBL steel framed pipe racks.

#### **Purified EO Tower Project | BASF | Geismar, LA**

Engineer of Record for the new grass roots plant including a multi-story steel framed process unit, ISBL steel pipe rack, and modifications/additions to tank farms and OSBL pipe racks.

#### **Desalter Project | ExxonMobil Refinery | Baton Rouge, LA**

Engineer of Record for the new grass roots Desalter unit including new desalter drum foundations, new steel platforms and the interconnecting ISBL and OSBL pipe rack additions.

#### **Offsites Pipe Rack Rehabilitation Project | ExxonMobil | Baton Rouge, LA**

Engineer of Record for the rehabilitation and expansion of the offsites steel pipe racks.

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### Industrial Project Management

**U68/U250 OSBL to Praxair Steam Methane Reformer | P66 Sweeny Refinery | Sweeny, TX**  
Prepare FEL 1 to Detailed Design (FEL 4) including interface management, procurement, constructability, and construction using Global Integrated Delivery (GID).

**Tail Gas Treating Unit Project | P66 Alliance Refinery | Belle Chasse, LA**  
Prepare FEL 2 to Detailed Design (FEL 4) including interface management, constructability, and construction using GID.

**Catalyst and Analytical Lab CEU 177 Pilot Plant Relocation Project | INEOS Battleground Manufacturing Complex (BMC) | Houston, TX**  
Prepare FEL 3 Estimate for the Catalyst and Analytical LAB CEU 177 Pilot Plant Relocation project using GID.

**Diesel Export Project | ExxonMobil Refinery | Baton Rouge, LA**  
Prepare FEL 3 FEED package describing the requirements for the new Diesel Tankage, Blend Header, and associated piping modifications using GID. The purpose of the project was to allow the Baton Rouge Refinery to segregate rundowns into Domestic and European grades.

**Alkaline Conversion Project | Georgia Pacific Mill | Ashdown, AR**  
Project execution involved a portion of the project being engineered and designed in Baton Rouge and a portion of the project being engineered and designed onsite at Georgia Pacific.

**Polishing Reactor (Gasoline Hydrotreater Revamp) Project | P66 Alliance Refinery | Belle Chasse, LA**  
Prepare FEL 1 to FEL 3 estimates and the associated tie-ins using GID. The purpose of the project was to achieve 10 ppm Tier III gasoline.

**FCC Optimization Phase 1 Project | P66 Alliance Refinery | Belle Chasse, LA**  
Prepare FEL 1 and FEL2 estimates. The purpose of the project was to route low pressure lean streams to the C boiler for combustion including the installation of a new amine contactor for low pressure lean gas to unload FCC wet gas compressor with required tie-ins.

**Global Integrated Delivery (GID) Utilization Improvement Plan | ExxonMobil Refinery | Baton Rouge, LA and Beaumont, TX**  
Developed, author, and implement organizational change within the work methods at the Jacobs Alliance in Baton Rouge (JAG) and at the Jacobs Alliance in Beaumont (BMAP) to share work with our Jacobs offices in India and institutionalize those changes.

### SPREAKING ENGAGEMENTS

- **Forensic Engineering – Tornadoes – A Look Back at the Recent Past** – ASCE Baton Rouge Chapter Luncheon seminar, Baton Rouge, LA; 2026
- **Forensic Engineering - Hurricanes & Tornadoes** – ASCE Louisiana Section Spring Conference, Baton Rouge, LA; 2024

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- **Pile Driving – Codes & Standards**; Pile Driving Contractors Association Gulf Coast Chapter Engineers Conference. New Orleans, LA; 2017
- **Design and Detailing of a Reciprocating Compressor on a Concrete Block Foundation Supported by Piles**; Louisiana Civil Engineering State Conference & Show - Joint Sponsor of ASCE and ACI. New Orleans, LA; 2014
- **ACI 318 and Modular Structural Steel Design**; Civil Structural Department | Jacobs Office, Baroda, India; 2009.
- **Hurricane Katrina – Structural Assessments – Observations and Findings**; American Society of Civil Engineers (ASCE) Luncheon seminar. Baton Rouge, LA; 2006
- **The Design of the LSU Tiger Stadium Westside Upper Deck** - Presentation as the Engineer of Record for the Design of the LSU Tiger Stadium Westside Upper Deck Addition followed by a tour of the completed stadium; American Society of Civil Engineers (ASCE) Luncheon seminar. Baton Rouge, LA; 2006