



St. Charles Streetcar Downtown Loop Track Replacement Phase IV RTP# 2025-04

Infinity Engineering Consultants, LLC.

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Infinity Engineering Consultants, LLC is pleased to submit to the Regional Transit Authority of New Orleans our project proposal for the comprehensive engineering design for the replacement of existing rails and other embedded special trackwork along the St. Charles Streetcar line, located within and around Harmony (Tivoli) Circle. Phase IV of the Downtown Loop Pavement Project represents a critical investment in the long-term safety, reliability, and accessibility of New Orleans' historic streetcar network. This project aligns closely with Infinity Engineering's extensive experience providing the RTA with professional consulting services for streetcar infrastructure across the City of New Orleans.

Infinity has a longstanding history of delivering engineering design services for all four of the RTA's streetcar lines. On three of these—St. Charles Avenue, Canal Street, and Rampart-Loyola—Infinity developed detailed track designs involving the specification and procurement of specialized components and embedded trackwork materials. The firm also possesses in-depth knowledge of the Downtown Loop Phase IV project, having previously served as the prime consultant for the overall Downtown Loop Paving Initiative before it was divided into multiple phases. Infinity successfully led and completed Phases I and II of the repaving work, further demonstrating our expertise in streetcar infrastructure design and construction management.

Infinity's multidisciplinary team is uniquely qualified to address the complex needs of Phase IV—from the design and procurement of specialty track components to the development of construction phasing strategies that ensure continuity of transit service. For the Phase IV project, Infinity will provide professional consulting services for Project Management, Civil, Structural, & Electrical Engineering, Streetcar Track Procurement, and Construction Administration. To meet the full scope of the project, Infinity has assembled a highly capable team of subconsultants, including:

- **AECOM** - Cost Estimating, Safety & Hazard Analysis, and QA/QC
- **GoTech, Inc.** - Surveying and Civil Engineering for Utility Conflict
- **Urban Systems, Inc.** - Traffic Engineering
- **T. Baker Smith, LLC.** - Subsurface Utility Engineering
- **The Beta Group** - Geotechnical Engineering

Over Infinity's 21 years of providing engineering consulting, we have enjoyed a strong and collaborative relationship with the Regional Transit Authority. We look forward to the opportunity to continue this partnership and to contribute to improving transportation infrastructure for our community. Thank you for your time and consideration of Infinity Engineering's technical proposal. Please do not hesitate to reach out should you have any questions.

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Project Understanding



The New Orleans Regional Transit Authority (RTA) is advancing its goals for transportation modernization and infrastructure renewal through the design and construction of the St. Charles Streetcar – Downtown Loop Track Replacement, Phase IV project. Infinity Engineering understands that the scope of this project is to address critical rail and trackwork deficiencies in the St. Charles Avenue streetcar infrastructure, specifically within key problem areas around Harmony (Tivoli) Circle, Howard Avenue, and Carondelet Street. Over time, this heavily used corridor has experienced progressive deterioration due to age, environmental exposure, and sustained operational demands.

Phase IV of the Downtown Loop project includes the professional engineering design and construction administration of specialized streetcar components and special trackwork to accommodate 400-, 900-, and 2000-series streetcars currently in use as well as the potential new modern, low-floor vehicles. The scope also includes enhancements to rider and pedestrian safety through ADA-compliant improvements at stop locations and improvements to pedestrian and traffic signalization systems. In its current condition, the infrastructure poses an elevated risk of failure—particularly at complex track junctions and embedded crossings—where precise geometry tolerances are critical. Degraded ride quality, speed restrictions, and increasing maintenance demands have further limited RTA operations and placed strain on available resources.

The Downtown Loop Phase IV Track Replacement Project serves as a pivotal component of the RTA's broader Streetcar System Modernization Plan, which is focused on enhancing system reliability, safety, accessibility, and overall customer experience. This project presents an opportunity to replace aging infrastructure with updated, durable systems and to incorporate design elements that accommodate potential future low-floor rolling stock as well as improve ADA compliance at streetcar stops. Additionally, the project will be closely coordinated with parallel initiatives such as the All Stops Accessibility Program (ASAP) and Modernization Program to ensure alignment with RTA's long-term goals. Through this effort, the RTA aims to preserve the historic character of the St. Charles Line while delivering a streetcar system that meets contemporary standards for accessibility, and public mobility.

Project Objectives:

The primary objective of the project is to **replace approximately 2,422 feet of degraded track** infrastructure within the defined project area around Harmony Circle. The replacement is necessitated by deteriorating conditions such as significant rail wear, decaying special trackwork components (including switches, frogs, and mates), drainage issues, and structural failures due to long-term water intrusion and aging materials. A key element of this process is the precision saw cutting of the existing pavement to facilitate the removal of old rails and special trackwork (STW). Specifically, the scope includes saw cutting a 62.5-inch wide section between the existing tracks, as well as a 12-inch wide section on the outside edges of each rail, with both areas cut to a depth of 8 inches down to the underlying concrete foundation. This methodical removal process is essential for extracting the compromised rail elements.

In addition to addressing core infrastructure deficiencies, the project sets out to evaluate and incorporate a range of accessibility and safety improvements. The project will also address operational bottlenecks and safety concerns through **improvements to streetcar signalization systems** and enhancements to intersection preemption. A critical objective is to improve accessibility at streetcar stops by incorporating ADA-compliant boarding platforms, sidewalk extensions, and pedestrian features designed to meet current federal and local standards. These objectives align with broader planning efforts, namely the **All Stops Accessibility Program (ASAP)** and the **Streetcar Modernization Master Plan**, and contribute to RTA's vision of a more accessible, equitable, and efficient streetcar network.

Project Tasks:

Infinity recognizes the Phase IV Downtown Loop project includes thirteen specific tasks for the professional consulting team to perform. To successfully complete each task, Infinity has partnered with five subconsultants to provide a comprehensive professional consulting services team to complete the Phase IV Downtown Loop project effectively and efficiently. The Infinity team includes the following professional consulting service firms:

- **Infinity Engineering Consultants, LLC.** - Project Management; Civil, Structural, & Electrical Engineering; Streetcar Track Procurement; Construction Administration
- **AECOM** - Cost Estimating, Safety & Hazard Analysis, and QA/QC
- **GOTECH, Inc.** - Surveying and Civil Engineering for Utility Conflict
- **Urban Systems, Inc.** - Traffic Engineering
- **T. Baker Smith, LLC.** - Subsurface Utility Engineering
- **The Beta Group** - Geotechnical Engineering

The Phase IV Downtown Loop project tasks include:

- **Assist in Outreach Strategy and Implementation of Outreach Efforts**
Infinity Engineering and Other Applicable Subconsultants
- **Current Conditions Assessment and Site Preparation**
Infinity Engineering; GOTECH; Urban Systems; T.Baker Smith; The Beta Group
- **Emergency Track and Track System Repairs**

- Infinity Engineering; AECOM; GOTECH
- **Project Management and Coordination**
Infinity Engineering
- **Rail Procurement Bid Package**
Infinity Engineering
- **30% Schematic Design; 60% Design Development; 90% Permit Set and Permit Approvals**
Infinity Engineering; GOTECH; Urban Systems; AECOM
- **100% Construction Documents, Bid Package, and Bid Preparation Assistance**
Infinity Engineering; GOTECH; Urban Systems; AECOM
- **Cost Estimates and Management of Project Budget**
AECOM & Infinity Engineering
- **Safety and Hazards Analysis**
AECOM & Infinity Engineering
- **Construction Administration**
Infinity Engineering & AECOM
- **Testing and Commissioning**
Infinity Engineering & AECOM

Key Opportunities and Constraints: Infinity recognizes that Phase IV of the Downtown Loop project presents both opportunities and project constraints that warrant careful design consideration. To support effective rail replacement and traffic improvement design, Infinity offers the following key factors for consideration.

Opportunities:

System Modernization and Standardization:

The project offers a key opportunity to replace decaying and obsolete rail infrastructure, including grooved and girder rails with new, more durable systems, updated double tounge switches, frogs, and embedded track systems. Replacing outdated components with 115-pound T-rail and restraining rail configurations allows the RTA to standardize materials across multiple lines, simplifying future procurement and maintenance. Additionally, rehabilitating deteriorated track infrastructure will reduce service interruptions, minimize emergency maintenance, and allow for increased operating speeds, smoother ride quality, and reduced noise. Additionally, the updated track systems allows for further extension of the Howard Ave track to connect with the Loyola Line track.

Preservation of Historic Streetcar Line:

The project offers a chance to preserve the streetcar's historic alignment and appearance while utilizing modern embedded track construction methods, ensuring long-term performance.

Integration with Broader Planning Efforts:

The Downtown Loop Phase IV project is timed to align with two major RTA initiatives: the All Stops Accessibility Program (ASAP) and the Streetcar Modernization Master Plan. This coordination presents a strategic opportunity to advance cohesive, system wide improvements.

Enhanced Rider Accessibility and ADA Compliance:

The project provides an opportunity to bring legacy stop locations along the historic St. Charles Ave. line into full ADA compliance with accessible stops, and the possible integration of level-boarding platform.

Multimodal Integration:

The potential to incorporate transit priority measures (e.g., dedicated lanes, signal timing adjustments) and stop consolidation can streamline streetcar operations, reduce delays, and improve service efficiency. Redesign efforts at Howard Avenue and Harmony Circle can support better traffic signal coordination and multimodal interface with pedestrian, bike, and vehicle traffic in the CBD.

Constraints:

Tight Geometric Tolerances in Embedded Track Zones:

Existing curves, especially around Harmony (Tivoli) Circle, require precise alignment and design to maintain vehicle clearance envelopes. Minor deviations can affect streetcar stability and track wear.

Modernized Streetcar Vehicle Integration on Historical Lines:

While the introduction of modern, low-floor streetcars presents an opportunity to enhance accessibility and expand system capacity, a key constraint for the Downtown Loop Phase IV project lies in ensuring compatibility between future vehicles and the existing streetcar infrastructure. The current track layout and curb geometry are designed to accommodate the legacy streetcar fleet, which may differ in dimensions, turning radii, and boarding heights from the anticipated modern vehicles. As a result, portions of the existing alignment—particularly within tight curves and embedded track systems—may require modification to support future operations. This constraint is tied to the outcomes of the RTA's Streetcar System Modernization Plan, which will determine the specifications of the future fleet and inform necessary design adjustments to ensure long-term operational compatibility.

Urban Traffic and Construction Phasing Challenges:

Working in dense, high-traffic corridors like Howard Avenue and Carondelet Street limits construction access and staging areas. Minimizing impacts on vehicular traffic, pedestrians, businesses, and ongoing streetcar operations during construction will require detailed traffic control planning and phased implementation. Additionally considerations must be given to the construction impacts on the Mardi Gras Season

Aging and Incomplete Utility Records:

Utility congestion beneath the streetcar alignment could present a major constraint. Records are often outdated or missing, especially around the historic core. This increases the risk of unforeseen utility conflicts and delays.

Tight Project Timeline and Long Lead Times:

The necessity to procure specialized rail components with long manufacturing lead times introduces schedule risks. Delays in constructing specialized components and in shipping, could cascade into construction delays.

The Downtown Loop's proximity to major intersections, traffic corridors, and historic neighborhoods presents unique design challenges, necessitating close coordination with city agencies, utility providers, and other stakeholders to minimize disruptions and preserve the surrounding urban context. Both design and construction must be carefully phased to maintain streetcar service continuity wherever feasible. This will require a multi-disciplinary design team is closely with experience in modern transit systems, embedded rail replacement, and the preservation of historic streetcar infrastructure. As such, the following represents a high-level overview of each of Infinity's teaming partners:

AECOM - Cost Estimating, Safety & Hazard Analysis, and QA/QC

AECOM is a global infrastructure consulting firm that delivers professional services across the project lifecycle—from planning, design, and engineering to program and construction management. Headquartered in Dallas, Texas, AECOM operates in over 150 countries and serves clients in the transportation, water, energy, environment, and buildings sectors. The firm is widely recognized for delivering large-scale, complex infrastructure projects, including urban transit systems, airports, highways, and resilient community developments. Within the New Orleans area, AECOM has led the streetcar line segment expansions on Rampart-Loyola and Canal Streetcar Lines.

GOTECH, Inc. - Surveying and Civil Engineering for Utility Conflict

GOTECH, Inc. is a civil engineering and land surveying firm established in Baton Rouge, Louisiana in 1981. GOTECH's key personnel have expertise in performing engineering services that include civil engineering design, surveying, CADD drafting and construction inspection services. Our firm offers knowledge and technical ability in all fields of civil engineering practice including the design and preparation of construction plans for roadways involving developing including subsurface drainage and utilities conflicts. GOTECH's surveying services include boundary, topographic, hydrographic, elevation and site surveys. Our survey equipment features electronic total stations, data connectors, real-time kinematic global positioning systems (GPS), and fathometer equipment.

Urban Systems, Inc. - Traffic Engineering

Urban Systems, Inc. (USI) specializes in traffic engineering and transportation planning and has long been recognized for its technical expertise, analytical ability and imaginative approach to a wide range of traffic/transportation planning and engineering projects. With continuous service since 1974, our ability to bring a variety of experience to a project has proven valuable to our clients who are involved in improving transportation infrastructure in both urban and rural environments. Urban Systems, Inc. is a certified Disadvantaged Business Enterprise by the Louisiana, Mississippi, and Texas Unified Certification Programs, and a Women Business Enterprise, Certified- Active as a small entrepreneur with Louisiana Economic Development Hudson Initiative.

T. Baker Smith, LLC. - Subsurface Utility Engineering

T. Baker Smith, LLC (TBS) is a fully integrated professional consulting firm dedicated to delivering successful outcomes for clients in the public works sector. Backed by over 75 years of combined experience, our qualified Subsurface Utility Engineering (SUE) team consistently delivers projects on time and within budget, while upholding the highest standards of quality through rigorous quality control protocols. Comprising experienced engineers, surveyors, and technicians, TBS's SUE team leverages advanced technology and industry expertise to help clients identify and mitigate the risks and uncertainties associated with underground utilities. By locating existing utilities during the early stages of a project, we help reduce the potential for costly utility conflicts, ultimately improving project efficiency, minimizing delays, and lowering long-term costs. Subsurface Utility Engineering is a proven practice that adds value throughout the entire project lifecycle.

The Beta Group - Geotechnical Engineering

The Beta Group Engineering & Construction Services is a geotechnical engineering firm based in Gretna, Louisiana, specializing in subsurface exploration, materials testing, and resident inspection. Since 1997, TBG has completed over 8,000 projects, supported by a team with 125 years of combined experience. The firm offers a full range of geotechnical services including foundation analysis, pavement design, and pile load testing, as well as construction materials testing such as pile logging, vibration monitoring, concrete and asphalt inspection, and specialty testing.

Team Experience

Infinity possesses an extensive resume of past successful projects involving RTA streetcar expansion and rehabilitation projects. Over Infinity's 21 year history, the firm has provided professional engineering services for all four RTA streetcar lines. These project experiences act as an invaluable resource to our approach to designing the streetcar track replacement around Harmony Circle. Presented below are just a few pertinent projects showcasing the expertise held by Infinity's civil/structural team in regards to streetcar related engineering projects.

St. Charles Streetcar Line Downtown Loop Phases I & II

Location: New Orleans, LA | Completed: March 2022

Construction Cost: \$4,600,000 | Prime Consultant

Contact: Martin Posposil (No longer with RTA) | 504-827-8393

Infinity developed plans and specifications for the replacement of deteriorated streetcar track pavement along St. Charles Avenue and Carondelet Street in downtown New Orleans, an area commonly known as the "Downtown Loop." In this corridor, the streetcar tracks are embedded within the surrounding pavement, which was in poor condition and required frequent maintenance by the Regional Transit Authority (RTA). To address persistent maintenance issues, the RTA engaged Infinity to design long-term improvements. The scope of work included the **removal of asphalt between the rails** and a two-foot-wide strip along the outside of each track. These areas were **replaced with new concrete pavement** to enhance durability and reduce maintenance needs. The design also incorporated repairs to adjacent asphalt pavement to ensure a smoother, more uniform, and resilient roadway surface.



Canal Blvd. and City Park Avenue Streetcar Line Extension

Location: New Orleans, LA | Completed: October 2018

Construction Cost: \$9,000,000 | Prime Consultant

Contact: Stephen Mitchell (No longer with RTA) | (504) 400-6308

As the prime consultant for the final phase of the Canal Streetcar Line, Infinity Engineering led the design of a multimodal transportation hub that safely and efficiently integrated streetcar service, bus lanes, vehicular traffic, bicycle lanes, and pedestrian pathways. Serving **as project manager, Infinity oversaw the extension of the streetcar tracks to Canal Boulevard**, culminating in a terminus located within the first turnaround bay. Infinity's multidisciplinary team provided comprehensive civil, mechanical, and electrical engineering services. In-house design responsibilities included the **streetcar track foundations**, catenary system (track power and support poles), terminal lightning protection systems, and the design and coordination of underground utility relocations. This integrated approach ensured a cohesive and functional transit hub that enhances connectivity and mobility for the area.



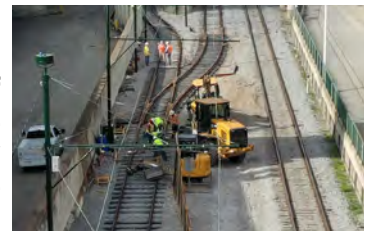
Riverfront Streetcar Line Track Repair and Special Track Procurement

Location: New Orleans, LA | Completed: August 2023

Construction Cost: \$750,000 | Prime Consultant

Contact: Martin Posposil (No longer with RTA) | 504-827-8393

Infinity Engineering served as the prime consultant for the **repair and replacement of approximately 17,000 linear feet of track** for the RTA Riverfront Streetcar line across two lines of track. This line roughly traces a floodwall along the edges of the historic New Orleans French Quarter. The streetcar line has cross-overs at both terminating ends, as well as a quarter-grand-union at the base of Canal Street.



Infinity provided civil engineering designs for the replacement of the existing special track in its entirety from the upriver starting point to the first station at John Churchill Chase. Within this section of track, a single slap-switch and frogs were significantly worn and required replacement. Additionally, Infinity provided designs for the **tamping of ballast material** along the full length of both track directions. During the tampering operations, the **track was realigned to adjust the elevation** and lateral position of the rails to bring them back into gage and tolerance. Infinity oversaw the project from initial designs through project close-out, which included resident inspection services.

St. Charles Avenue Streetcar Line ADA Stops

Location: New Orleans, LA | Completed: December 2020

Construction Cost: \$714,000 | Prime Consultant

Contact: Stephen Mitchell (No longer with RTA) | (504) 400-6308

Infinity provided the engineering designs for the **reconfiguration of six streetcar stops** for the Regional Transit Authority. The redesigns ensured each of these stops meets ADA guidelines so passengers of all abilities can utilize the St. Charles Avenue streetcar line.



To bring the six stops to ADA standards, Infinity drafted the following design measures:

- **Widened the median** to provide adequate exit width adjacent to the streetcar stop
- Altered the traffic lanes (striping) as prompted by the widening of the median
- Altered the parking lane (striping and curbing) to delete spaces where encroached upon
- Modified sidewalks and **added ADA ramps** to intersection four corners as well as at median crossings
- Relocated utility conflicts that were encountered, such as drainage inlets and manholes

Carrollton Double Crossover Widening

Location: New Orleans, LA | Completed: In Design

Construction Cost: \$1,700,000 | Prime Consultant

Contact: Rafe Rabalais | 504-827-8361

Infinity is serving as the prime consultant for the Carrollton Avenue Double Crossover Widening project at the terminus of the St. Charles Streetcar line. The project scope includes **widening the existing track alignment** to accommodate the new special trackwork and reconfiguring the adjacent U-turn to better accommodate tractor-trailer turning movements. The redesigned geometry reduces the risk of vehicle encroachment on the median and streetcar infrastructure, improving both safety and durability. Infinity is also designing the integration of a **new wayside streetcar control system** into the crossover, allowing streetcars equipped with transponders to automatically switch to the available track at the terminus. This system will be installed alongside a **replaced overhead voltage contactor** as part of modifications to the Overhead Catenary System (OCS). Both control systems remain operable to ensure compatibility during the broader fleet upgrade. Infinity's scope of services included final design, preparation of construction documents, **coordination of special trackwork procurement**, bid-phase support, and full construction administration.

Carrollton Ave. Terminus Streetcar Shelter and Display Case

Location: New Orleans, LA | Completed: 2013

Construction Cost: \$750,000 | Prime Consultant

Contact: Martin Posposil (No longer with RTA) | 504-827-8393

Infinity provided engineering design and construction administration services for the installation of a custom-designed streetcar shelter and display case at the terminal intersection of Carrollton and Claiborne Avenues. The scope of work included the structural design of the grade beam foundation, **demolition of existing pavement**, and engineering support for steel fabrication and erection, as well as **electrical wiring and utility connections**. Infinity coordinated closely with Entergy to facilitate the acquisition of low-voltage power required for shelter lighting and the operation of card vending kiosks. The project required precise integration of structural and electrical systems within a constrained urban environment, ensuring both functionality and aesthetic continuity with the RTA's St. Charles Ave. streetcar line.



Loyola Avenue to Union Passenger Terminal Streetcar Line Expansion

Location: New Orleans, LA | Completed: January 2013

Construction Cost: \$20,000,000 (Infinity Portion) | Sub Consultant

Contact: Jonathan McDowell (AECOM) | 225-663-4309

As a subconsultant to AECOM, Infinity provided utility conflict and relocation designs for the Canal Street streetcar line expansion along Loyola Ave to Union Passenger Terminal. The overall Loyola Avenue Streetcar expansion included the design of a new streetcar rail system network, which called for underground utilities assessment and relocation, new tracks, shelters, and catenary systems. Infinity was tasked with producing **subsurface utility (water lines, sewage, and drainage) conflict and relocation design** as well as construction drawings and record specifications. The subsurface utility design included the relocation of 20" and 30" water mains and valves. Special considerations were given to the placement of the overhead catenary system to verify the new pole locations did not interfere with utilities.



Louisiana Gateway Port Railway Extension


Location: Belle Chasse, LA | Current Status: In Design

Construction Cost: \$12,500,000 | Prime Consultant

Contact: Charles Tillotson | 504-682-7920

Infinity Engineering is serving as the prime consultant for the design and project management of a **new 11-mile railroad extension** of the **existing New Orleans and Gulf Coast Railway Co (NOGC) line** to the future site of the Louisiana Gateway Terminal (LGT). The beginning of the extension is planned at the edge of the CPRA Mid-Barataria Sediment Diversion Project and near the Mississippi River levee. The extension is proposed to traverse towards Highway 23, crossing in front of Ironton, and follow along the path of Highway 23 until it turns back towards the Mississippi River. Infinity is taking over the project from another professional consulting firm; therefore, the Infinity team has reviewed over 250 project files to determine which designs and survey services remain applicable.

It is anticipated that the rail extension may result in the replacement and/or modification of existing features where the

rail alignment conflicts with structures that are located within these industrial properties. Infinity is  coordinating with industrial property owners (Kinder Morgan and Venture Global) to determine the conflicts and revise the final designs. Infinity is also coordinating with the US Army Corps of Engineers to ascertain Section 408 review during the permitting process. Additionally, Infinity is working alongside 360 Rail Services to complete this rail extension project.

Additional Notable Infinity RTA Projects:

- Rampart Streetcar Line Expansion - Utilities & Construction Specifications
- Canal Street Ferry Terminal CMAR Design
- Four Seasons Hotel Expansion Foundation Streetcar Track Removal & Replacement
- Non-Advertisement Shelter Design and Installation
- Algiers Ferry Universal Barge Design Replacement
- Napoleon Avenue Transit Station Historic Building Restoration

AECOM: Cost Estimating, Safety & Hazard Analysis, & QA/QC

SEPTA Trolley Modernization Program Management



Location: Philadelphia, PA | Prime Consultant

Beginning in 2015 AECOM has been one of SEPTA's trusted colleagues as SEPTA began the long process of modernizing their rail transit system. The public face of their modernization program is the change from their existing fleet of vehicles and transitioning from their existing trolley system and historic trolleys to a modern streetcar. AECOM provided services to three different takes associated with the SEPTA Trolley Modernization Program, which started with the **Trolley Modernization Feasibility Study** and continues today as assisting as **SEPTA's Program Manager**. The Trolley Modernization Program has dramatically improved a vital component within the SEPTA transit system and provided enhanced service to the local communities. By implementing **level boarding, new vehicles**, improved wayfinding, and dedicated station stops, the program has created a accessible, faster, and easier-to-use trolley system. Trolley Modernization consists of a multitude of interrelated projects—each with inherent dependencies—that collectively achieve the ultimate goal of transforming a 100-year-old system into a revolutionary mode of transit travel.

Amtrak ADA Stations Program Improvements

Location: Philadelphia, PA | Prime Consultant

Since 2009, as lead partner of a Joint Venture, AECOM has managed a nationwide station improvement initiative that began with oversight of Amtrak's \$1.3 billion Stimulus Act Program (ARRA) and transitioned into management of The ADA Stations Program (ADASP). AECOM continues to lead the ADASP by providing a multitude of services. ADASP is making physical improvements to over 390 of Amtrak's intercity rail transportation stations, bringing them in compliance with Title II of the Americans with Disabilities Act of 1990. The program has many facets of work including station design, coordination with third parties, including the FRA IDOT and Metra, cultural assessments and preservation, land surveys, station assessment and compliance, geotechnical services, program management and construction management. AECOM performed land surveys and assessments documenting existing site conditions for the stations. The information was used to develop a base map and helped established the basis of design.

City of Phoenix Public Transit Department Facility Condition Assessment Services

Location: Phoenix, AZ | Prime Consultant

The Facilities and Contracts Division contracted AECOM to perform facility condition and Americans with Disabilities (ADA) survey for the Public Transit Department's facilities across the city. AECOM conducted a comprehensive Americans with Disabilities Act (ADA) **survey to assess accessibility compliance across the city's transit facilities**. The survey focused on evaluating public access routes, entrances, restrooms and other key infrastructure elements to identify potential ADA deficiencies. This assessment was integrated into the broader facility condition evaluation to provide actionable recommendations for corrective measures, ensuring compliance with ADA standards. The collected data was leveraged to inform capital planning efforts and enhance accessibility for all transit users. The facility assessments included over 808,289 square feet, 16 buildings, and 132 acres.

GOTECH: Civil Engineering for Utility Conflict & Surveying

North Rampart Street (St. Claude Avenue) Rail Expansion



Location: New Orleans | Subconsultant

GOTECH worked on the Rampart Street Rail Expansion project for the New Orleans Regional Transit Authority (RTA). The project 7,300 feet in length project covered the area from Canal Street to Elysian Fields Avenue, along the Rampart Street Corridor. Working as a subconsultant to AECOM, GOTECH provided **surveying and mapping services** on the project. For the surveying phase on the project, GOTECH field crews obtained topographic, drainage, utility manhole, elevation, and cross section survey data throughout the project area. GOTECH worked closely with the subsurface utility engineers and with the utility relocation engineers to **identify the existing infrastructure locations**.

Loyola Avenue Streetcar Rail Expansion

Location: New Orleans | Subconsultant

GOTECH served as the engineering and surveying subconsultant for the RTA's Loyola Ave. Rail Expansion project. The project area extended from the Union Passenger Terminal to Canal St. (approx. one mile in length). Working as a subconsultant to AECOM, GOTECH provided civil engineering and surveying services on the project. For the surveying phase on the project, GOTECH field crews obtained **topographic, drainage invert, manhole, elevation, and cross section survey data** throughout the project area. GOTECH CADD drafters then updated and refined the existing mapping documents by integrating new survey data points into the project plan / profile sheets. Survey technicians descended into the 125-year-old structure to obtain detailed interior measurements that were critical to the design of the project. GOTECH engineering and drafting personnel provided civil engineering services on the Loyola Street RTA project. GOTECH analyzed the existing storm water runoff drainage system impacts. Other engineering duties included cross section preparations (TIN model development), typical section drafting, quantity calculations, demolition plan development, geometric evaluations, **design of track drainage components** and pedestrian access geometric designs.

Urban Systems: Traffic Engineering

Read Boulevard Transit Evaluation

Location: New Orleans | Subconsultant

The primary objective of this project was to assess the feasibility and impact of converting the northbound outside lane on Read Boulevard into a bus staging area, extending the existing two-lane configuration between Dwyer Road and Nature Center Boulevard. A secondary objective, contingent on the feasibility analysis, was to **develop a pavement marking and signage** plan to facilitate the lane conversion. To achieve these objectives, USI conducted a multi-phase analysis, beginning with an on-site design review. Key tasks included **collecting seventy-two-hour volume counts** for up to eight lanes on Read Boulevard and gathering turning movement counts at up to three intersections during peak periods. When traffic impacts were identified, USI proposed potential mitigations such as adjusted lane configurations and signal timing to maintain efficient peak-hour operations.



Loyola Ave Streetcar Canal Street to Union Passenger Terminal Rail Expansion

Location: New Orleans | Subconsultant

Urban Systems was on Archer Western's team for the Streetcar Rail Expansion from Canal Street to Union Passenger Terminal on Loyola Avenue. Urban Systems prepared schematics of the traffic control strategy. Additionally, Urban Systems **created Traffic Control Devices Plan (TCDP)**, which met The City of New Orleans and MUTCD standards. The TCDPs facilitated traffic safely and efficiently through the traffic control zone. Plans included lane closures, complete street closures, and associated detours. Temporary signal locations included: Canal Street, Tulane Avenue, Howard Avenue, Julia Street, Elk Place, Perdido Street, and Poydras Street

T. Baker Smith: Subsurface Utility Engineering

Calcasieu River Bridge SUE

Location: Lake Charles, LA | Subconsultant

The purpose of the project is to replace the existing I-10 bridge crossing Lake Charles. This is **one of the largest SUE projects in the history of LADOTD**. TBS provided Quality Level B and Quality Level A SUE services as well as Utility Coordination during Design. There are numerous pipelines throughout the corridor due to the abundance of chemical plants in the area, so determining the location of these pipelines was crucial to the design of the project. The City of Westlake utilities such as water, sewer, and gas proved to be difficult to locate and the records were outdated and unclear. A combination of designating, test holes, and ingenuity was used to properly map out these utilities. Utility coordination was used to inform the utility companies of the impact the project would have on their facilities.



Parish Road 929 @ Parker Rd. Roundabout SUE and Surveying

Location: Prairieville, LA | Subconsultant

As part of Ascension Parish's Move Ascension Transportation Program, T. Baker Smith, LLC was selected by Buehrt-Horn to provide topographic surveying, property surveys, Right of Way maps and Subsurface Utility Engineering services for the design of a roundabout at Parish Road 929 and Parker Rd. in Prairieville, LA. The length of survey and SUE services extended along all four legs of the proposed roundabout.

The Subsurface Utility Engineering (SUE) services were performed in strict accordance with CI/ASCE 38-02 guidelines for all utilities within 125' of either side of the roadway along all four legs of the proposed roundabout. The SUE services extended for a distance of 1,000' each direction. Quality Level D-B services were provided for all utilities within the 250' wide area of interest and Level A services were provided for any utility with a diameter greater than 4" which crossed the roadway. Subsurface utilities designated as part of the SUE services included water mains, buried electrical services, buried telephone, buried fiber optic telephone, fiber optic television, television, natural gas transmission pipelines, gas mains and sanitary sewer lines. Overall, TBS **designated nearly 37,000 linear feet of subsurface utilities** and performed Level A minimally invasive excavations via TBS' vacuum truck at twenty (20) locations including major water mains and gas pipelines.

Project Team

Infinity Engineering recognizes the Downtown Loop Phase 4 is a high-profile project with significant importance to the RTA. The successful completion of this project will not only preserve the continued operation of a National Historic Landmark, but also lay the groundwork for the RTA's future modernization projects. The project's location at Harmony Circle presents unique logistical challenges, given its high visibility, daily commuter traffic, and proximity to key cultural and civic destinations.

Harmony Circle serves as a vital corridor into and out of the Central Business District and provides access to major cultural attractions, including The National World War II Museum, Ogden Museum of Southern Art, NOCHI Culinary School, and the Museum of the Southern Jewish Experience. Additionally, Harmony Circle is a critical junction for the traditional Mardi Gras Route. The success of this project therefore requires a strategic and coordinated approach that minimizes disruptions while addressing the needs of diverse stakeholders.

To meet these challenges, Infinity has assembled a multidisciplinary team designed to deliver technical services for the full project scope, as well as seamless coordination of the team from design through construction. Each of Infinity's subconsultants has worked with the firm previously, many of which on streetcar related projects. Infinity Engineering will lead the effort, providing project management, as well as in-house civil, structural, and electrical engineering services. The firm will also handle streetcar track procurement and oversee construction administration. To address specialized aspects of the project, Infinity has engaged a team of experienced subconsultants:

- AECOM will lead cost estimating, safety and hazard analysis, and provide an additional layer of quality assurance/quality control across all deliverables.
- GOTECH, Inc. will perform surveying services and assist with civil engineering related to utility conflict resolution.
- Urban Systems, Inc. will provide traffic engineering, with a focus on streetcar operations, signal coordination, and lane modifications within a constrained urban environment.
- T. Baker Smith, LLC will conduct Subsurface Utility Engineering (SUE) to locate and assess underground utilities, helping to reduce construction risk and mitigate conflicts.
- The Beta Group will provide geotechnical engineering, ensuring soil and subgrade conditions are fully accounted for in the design and construction phases.

The unique skills and cumulative expertise of our highly experienced team are reflected in the innovative nature of our projects and our ability to deliver comprehensive solutions. Infinity further assures that only personnel identified in the pre-qualification application and as stipulated in the current Request for Proposals (RFP) will be assigned to this effort. No substitutions or reassignments will be made without prior written approval from the RTA. Aligned with the project scope, Infinity has designated key roles and personnel to lead each aspect of the work necessary to successfully complete this vital infrastructure improvement along the historic St. Charles Avenue streetcar line.

Infinity Engineering Consultants, LLC.

Project Management / Track Procurement / Engineering Design / Construction Administration

Ricardo, Contreras, P.E. – Project Manager | Foundations Civil/Structural Engineer

Ricardo Contreras, P.E. brings over 31 years of civil engineering expertise to the role of Project Manager for the Downtown Loop Phase IV project. As Infinity's Civil Engineering Manager, Mr. Contreras leads interdisciplinary teams with a focus on quality, collaboration, and effective delivery. Mr. Contreras's deep understanding of civil infrastructure—ranging from roadways and drainage systems to complex site utilities—makes him exceptionally qualified to oversee the track and infrastructure improvements to the Harmony Circle project area.

Mr. Contreras has a longstanding record of success managing transit and streetcar-related projects for the New Orleans Regional Transit Authority (RTA). Mr. Contreras's leadership on projects such as the Carrollton Double Crossover Widening demonstrated his ability to devise innovative solutions that enhance transit operations while respecting right-of-way and traffic constraints. Additionally, Mr. Contreras was responsible for **overseeing the reconfiguration of track geometry, revisions to overhead catenary systems**, and development of specialized procurement documentation. Mr. Contreras's project management role on the St. Charles ADA Stops further reflects his capacity to lead design teams through technically nuanced challenges. This project required the reconfiguration of existing medians and traffic lanes to accommodate ADA-compliant platforms, and Mr. Contreras ensured successful execution by coordinating closely with the Owner and ensuring full QA/QC oversight.

Michael Riviere, E.I. – Streetcar Track Procurement | Civil Streetcar Track Designer

Michael Riviere, E.I. holds a varied career in civil and structural projects, with a **significant focus on rail systems design**, particularly through his extensive work with the Regional Transit Authority of New Orleans. Mr. Riviere's experience also lends itself to roadway design and drainage design, enabling him to handle complete street reconstructions that also include rail line integration.

Mr. Riviere's extensive experience with the RTA is evident through several key projects. One such project included Mr. Riviere preparing plans and specification notes for the removal and reinstallation of the double track section of the Riverfront Streetcar line. This complex project required coordination with the New Orleans Public Belt Railroad (NOPB) to maintain the operation of grade crossing signals and involved the relocation of the power source. Notably, during the removal process, rails were cut and cataloged for reinstallation, and the other track material (OTM) was stockpiled.



Mr. Riviere also provided designs for the RTA Loyola Avenue expansion of the streetcar lines to Union Passenger Terminal. This encompassed the creation of construction drawings and record specifications, as well as the identification and design of utility conflicts. Mr. Riviere's responsibilities extended to the design of utility relocation for storm and sanitary drain lines and manholes, and waterlines, valves, and vaults ranging from 8" to 30" in diameter. This was necessary to clear the way for the new streetcar guideways and avoid an existing century-old brick box culvert. Streetcar related projects Mr. Riviere has performed at Infinity Engineering include:

- **Carrollton Ave Double Crossover Track Replacement**
- **St. Charles Streetcar Line: Downtown Loop Pavement Replacement Phases I & II**
- **Canal Street Line Extension - Canal Blvd. & City Park Avenue Transportation Hub**
- **Four Seasons Hotel Expansion Riverfront Streetcar Line Removal and Replacement**

Rachel Kenney, P.E. – Infinity QA/QC

As Chief Engineer at Infinity Engineering Consultants, Rachel Kenney brings over 24 years of structural and civil engineering experience, managing complex infrastructure projects from concept to construction. Ms. Kenney oversees Infinity's entire portfolio, providing executive leadership in program management, multidisciplinary team supervision, QA/QC, and the development of specifications and construction documents. Ms. Kenney has successfully led high-profile projects involving transportation systems and critical public facilities, including the RTA Canal Street Ferry Terminal CMAR and the East Bank Wastewater Treatment Plant Flood Protection. Ms. Kenney's extensive experience with CMAR delivery, structural inspections, and inter-disciplinary coordination positions her as a key technical and quality control authority for the Downtown Loop Phase IV project. Having worked on many RTA projects, Ms. Kenney is well versed in the RTA's quality standards. Under her leadership, Infinity works to verify designs are safe, constructible, and aligned with agency requirements and stakeholder expectations.

Cindy Gallo, P.E. – Assistant Project Manager | Subconsultant Liaison

Cindy Gallo brings over ten years of project management and civil/structural engineering experience to her role as Assistant Project Manager and Subconsultant Liaison for the Downtown Loop project. As Infinity Engineering's Project Delivery Manager, Ms. Gallo leads interdisciplinary teams with a focus on timely project completion, technical excellence, and clear, proactive communication with clients and stakeholders. In her supporting leadership role on the Downtown Loop, Ms. Gallo would be responsible for day-to-day coordination with subconsultants, managing schedules and deliverables, and supporting the overall project manager in guiding the design and construction administration process. Her depth of experience includes complex infrastructure projects such as bridge replacements, urban drainage improvements, and multi-modal transportation enhancements.

Currently, Ms. Gallo is Infinity's project manager for the extension of 11 miles of rail for the Louisiana Gateway Port. Ms. Gallo's background also includes extensive client and agency coordination, utility relocation oversight, ADA compliance design, and permitting, making her a vital contributor to the successful delivery of infrastructure improvements in complex urban environments.

Stuart Hart, P.E. – Stormwater Management and Drainage Design

Stuart Hart, P.E. is a Licensed Professional Civil Engineer with over 12 years of experience delivering comprehensive civil infrastructure solutions throughout the Greater New Orleans region. At Infinity Engineering, Mr. Hart plays a vital role in the planning and implementation of drainage and roadway improvement projects with a focus on long-term resilience, environmental sustainability, and community benefit. For the Downtown Loop project and related infrastructure work, Mr. Hart brings extensive experience in surface and subsurface drainage design, utility coordination, and roadway rehabilitation. Mr. Hart has successfully led and supported the development of stormwater management strategies that include traditional and green infrastructure solutions, such as rain gardens, underground detention systems, and permeable pavements.

Kevin Hurtt, P.E. – Construction Administration | Structural Engineering

As a licensed Professional Engineer and Infinity's Construction Administration and Structural Engineering Lead, Kevin Hurtt brings five years of specialized experience in the analysis, design, and inspection of civil and structural systems across transportation, marine, utility, and industrial sectors. In the Downtown Loop Phase IV project, Mr. Hurtt supports both field and design activities, leveraging his extensive background managing roadway rehabilitations, wharf and bridge repairs, and utility infrastructure improvements. Mr. Hurtt oversees Infinity's resident inspection services and plays a key role in coordinating multidisciplinary teams, managing subcontractors, and ensuring compliance with project specifications and regulatory standards.

Robert Haydel – Roadway Pavement and Drainage Design

Robert Haydel brings over 17 years of experience in civil engineering, with a specialized focus on urban drainage, hydrologic and hydraulic modeling, and infrastructure assessment. As a key contributor to Infinity Engineering's role in the Downtown Loop project, Mr. Haydel's technical expertise and leadership in stormwater system design and channel hydraulics were instrumental in advancing project objectives related to flood mitigation, roadway reconstruction, and drainage enhancement.

Mr. Haydel's responsibilities on drainage-related infrastructure projects have included modeling existing systems using the EPA Storm Water Management Model (SWMM), evaluating capacity improvements, and integrating green infrastructure solutions. Mr. Haydel's background in sediment transport, river morphology, and disaster damage assessment positions him uniquely to understand the complex hydrologic challenges facing New Orleans and similarly vulnerable urban environments. In the Downtown Loop project context, Mr. Haydel has guided multidisciplinary teams through the evaluation of drainage conveyance systems, design of canal and culvert replacements, and coordination with adjacent utilities and structures.

John Lawrence, P.E. – Electrical Engineer: Signalization Power

John Lawrence, P.E., serves as the Electrical Engineering Manager at Infinity Engineering, bringing more than 34 years of electrical engineering experience across industrial, municipal, and utility infrastructure projects. With a deep foundation in power and control systems, SCADA technologies, and electrical instrumentation, Mr. Lawrence has led the design and implementation of complex electrical systems throughout Louisiana and the Gulf South. A central highlight of Mr. Lawrence's high-voltage experience is his work for the Sewerage & Water Board of New Orleans' West Power Complex, where he acted as the Principal Electrical Engineer and Project Manager for the design of high-voltage duct banks and manhole networks. The project involved routing and coordinating 13.8kV and 34.5kV underground feeder systems, pull calculations, and layout of manholes and utility terminations. Mr. Lawrence also developed plans for above-ground high-voltage routing to the Sycamore substation.

Additional Available Infinity Engineering Personnel

Raoul V. Chauvin, III, P.E. – Principal Partner | Client Relations

Raoul Chauvin is a licensed professional engineer with over 35 years of experience in mechanical systems design and project leadership across municipal infrastructure, marine terminals, and industrial facilities. As a Principal Partner at Infinity Engineering Consultants, Mr. Chauvin oversees all mechanical system designs and serves as the primary client liaison, ensuring clear communication, responsiveness, and alignment between project stakeholders and design teams. For the Downtown Loop project, Mr. Chauvin brings a strategic, client-focused perspective shaped by decades of delivering mechanical engineering solutions under tight budgetary, scheduling, and environmental constraints. His expertise in large-scale drainage and infrastructure projects positions him as a key contributor to stakeholder coordination and high-level project oversight.

William Thomassie, P.E. – Principal Partner | Civil/Structural Advisor

As Principal Partner of Infinity Engineering Consultants, William Thomassie brings over three decades of experience in civil and structural engineering, leading the firm's engineering production across a wide range of infrastructure and marine-based projects. With active professional registration in fifteen states, Mr. Thomassie serves as a registered supervising professional and is relied upon to guide design development, cost estimating, and public coordination on complex transportation and infrastructure projects.

In the Downtown Loop project, Mr. Thomassie serves as the firm's Civil/Structural Advisor, lending direct oversight to the design and integration of civil infrastructure elements, utility coordination, and structural systems. His ability to navigate design complexity, utility conflicts, and transportation logistics in urban environments makes him a vital asset to the project team.

Infinity's total full-time staff includes eleven (11) professional engineers, four (4) engineering interns, three (3) engineering graduates, ten (10) AutoCAD designers, three (3) resident inspectors, as well as supportive administrative personnel. Infinity is prepared to add additional team members to the Downtown Loop Phase IV project to successfully complete the track replacement efficiently and effectively. Key members of the Infinity subconsultant team follow.

AECOM: Cost Estimating, Safety & Hazard Analysis, & QA/QC

Deputy Project Manager – Jonathan McDowell, P.E.

Mr. McDowell has over 28 years experience as a Project Engineer and Project Manager for a wide variety of transportation and public infrastructure projects throughout New Orleans and southeast Louisiana. His roles have included all phases of transportation and site development projects for various local public agencies. Mr. McDowell has participated in the RTA streetcar program since 2003. His critical design roles include access management, road safety, and compliance with ADA and PROWAG on roadway and site projects. Mr. McDowell's RTA project experience has included: RTA, Restoration of the Rampart and Canal Street intersection following the Hard Rock Collaps; RTA, Rampart Street/St. Claude Avenue Rail Expansion; and RTA Loyola Avenue Canal Street to the UPT Rail Expansion.

Project Manager – Bill Norquist, P.E.

Mr. Norquist has over 41 years of experience in the design, planning, construction, and maintenance of rail transit and freight railroad projects in the US and abroad. He is a Sr. Project Manager and an AECOM Technical Manager for Rail and Rail Transit

design. His involvement in rail transit, streetcar and New Orleans projects included the project management, technical supervision of the design of track and other technical disciplines and providing construction phase design support services. Mr. Norquist's professional experience includes the following representative projects: RTA, Rampart Streetcar Line: Emergency Recovery Project; RTA, Rail Expansion (Streetcar) Final Engineering Rampart Street/St. Claude Avenue; and RTA, Canal Street to Union Passenger Terminal Rail Expansion



GOTECH: Civil Engineering for Utility Conflict & Surveying

GOTECH Project Manager – Bruce Dyson, P.E., PLS

As a registered Professional Land Surveyors, Mr. Dyson oversees and assists in the production of all GOTECH's surveys. Mr. Dyson holds an extensive background in performing boundary, topographic, and hydrographic survey as well construction stakeout.

Professional Land Surveyor – Robert Price, PLS

Mr. Price is a licensed professional land surveyor with more than 20 years of experience in the development, coordination, and management of land surveying and mapping projects. Mr. Price's varied project experience includes property boundary surveys and right-of-way map preparation along with detailed topographic survey data collection.

GOTECH Chief Engineer – John Schexnayder, P.E., CFM, CSM

Mr. Schexnayder is a registered professional civil engineer and serves as a project manager at GOTECH, Inc. His duties include design, coordination, technical construction document preparation, specification preparation, and quality control review for projects. Mr. Schexnayder also represents GOTECH as a project manager at meetings with public, federal, state and local government and private owners. Mr. Schexnayder has a variety of experience on drainage improvement projects, sewer system design, pump station upgrades, roadway design, site work design and cost estimating. He also has experience in hydrologic and hydraulic modeling and analysis.

Urban Systems: Traffic Engineering

Principal In Charge of Traffic Engineering – Alison C. Michel, P.E., PTOE, PTP, RSP2I

Ms. Michel will serve as the Principle in Charge of the Traffic Engineering tasks. Her designs of pedestrian signals have been focused on identifying phasing sequences to encourage pedestrian compliance which is a key factor that affects safety. She will perform the final QA/QC of deliverables.

Traffic Engineering / Design Analysis, and TMP's – Nicole H. Stewart, P.E., PTOE

Ms. Stewart will be the project manager for the traffic engineering tasks. She has designed numerous traffic signals with and without pedestrian accommodations. Ms. Stewart has conducted safety studies for public and private clients to improve mobility and safety in areas with high volumes of pedestrian and bicyclist activity.

T. Baker Smith: Subsurface Utility Engineering

SUE Lead Professional – TJ Stokes, PE

TJ Stokes, PE leverages 15 years of experience providing engineering services in the transportation industry. As practice leader, he composes and manages integrated project teams to ensure transportation clients' needs are met and exceeded. TJ gained his knowledge of LADOTD procedures during his tenure in the Road Design Section and utilizes this information to help coordinate and communicate between the multiple disciplines required to produce the highest quality of deliverable. He successfully manages numerous SUE projects specializing in transportation and roadway projects. As the Lead Professional for Utility Engineering, he is currently overseeing the completion of LADOTD and MDOT retainer contracts along with numerous other public and private client projects. He also has extensive experience managing and overseeing utility coordination and design projects. TJ maintains the ATSSA Traffic Control Supervisor certification.

SUE Project Manager – Perry Smith

Perry Smith is a SUE Project Manager with over 21 years of experience in the utility field and has served in various roles. His field experience for LADOTD projects began in 2017 where he has been involved in dozens of SUE projects of various sizes across the state of Louisiana. He has participated in all stages of a utility project from field data collection to final deliverable preparation. Perry has a thorough knowledge of ASCE 38-22, and the technology required to achieve the necessary quality levels. He is a certified ATSSA Traffic Control Supervisor (TCS).

SUE Field Manager | QA/QC – Kaleb Brooks

Kaleb Brooks is the SUE Field Manager in the Baton Rouge, LA office. He is primarily responsible for managing and the coordination of SUE field associates and equipment. As a SUE field manager, Kaleb works with the Project Manager and project team in delivery of Subsurface Utility Engineering projects. Kaleb performs quality control on all fieldwork to ensure the most accurate utility information.

The Beta Group: Geotechnical Engineering

Geotechnical Engineer – Alex Jaramillo

Prior to joining The Beta Group, he gained experience with several civil and geotechnical engineering firms in positions such as: geotechnical field and laboratory testing technician and project engineer. As a geotechnical engineer, Mr. Jaramillo has managed projects varying from residential to heavy industrial. Currently, Mr. Jaramillo is responsible for all geotechnical activities including subsoil explorations, completion of soils laboratory testing, geotechnical analyses for projects and completion of the geotechnical report. Mr. Jaramillo is also fluent in Spanish. Representative projects include: Bayou Terre Aux Buefs Ridge Restoration Armoring, Proposed Roadway Borings Tammany Terrace Subdivision, Proposed Gretna-Burmaster Transfer Facility and Proposed Lincoln Beach Development Project

Proposed Project Plan

Infinity Engineering proposes a phased, multidisciplinary approach to completing the St. Charles Streetcar

– Downtown Loop Track Replacement, Phase 4 project. Infinity project plan **prioritizes rail procurement, design efficiency, ADA and safety compliance, and minimal service disruption**. The following outlines Infinity's proposed project plan by tasks identified in the original request for technical proposal.

► Assist in Outreach Strategy and Implementation of Outreach Efforts (Task 1)

Time: Duration of the Project

Infinity anticipates that the RTA will lead community engagement activities during the early stages of planning and design. Our team stands ready to support these efforts as needed, with the scope and level of our involvement guided by RTA and its community outreach consultant. Historically, Infinity's support for similar outreach initiatives has included the production of poster-sized display boards, illustrative graphics, and other visual aids to communicate project scope, phasing, and impacts.

For example, during the Canal Street Cemetery Terminal Project, Infinity developed a detailed video simulation model to help the public visualize the proposed improvements in context. While more advanced products like simulations require additional planning and lead time, most standard materials can typically be developed within a shorter amount of time. In all cases, Infinity is committed to attending public meetings to provide technical expertise, answer questions from the community, and support RTA staff in conveying the goals of the project.

Establish Communication and Reporting Channels

Infinity prides itself on the firm's reputation for responsive communication. Infinity understands clear communication between the design team and the RTA will be vital to the successful expedited completion of the Downtown Loop Phase 4 project. Upon receiving a notice to proceed, the Infinity team will develop alongside the RTA a project communications plan that forms the basis of expectations around timely and effective communications. This plan will identify the specific stakeholders who should receive communications as well as the communication channels (virtual software, email, and phone) to be used throughout the duration of the project. Our team will work to maintain active communications with the RTA and key stakeholders to ensure everyone receives the information needed for a successful project completion.

► Condition Assessment, Field Investigations, and Site Preparations (Task 2)

Time: 6 to 8 Weeks

The site assessment portions of the project will involve contributions from multiple Infinity subconsultant team members, each bringing specialized expertise to create a thorough foundation for design. Infinity will begin with a **comprehensive conditions assessment**, utilizing detailed visual inspections to evaluate signs of metal fatigue, corrosion, rail wear, and deterioration in the embedded track components. The team will document existing track geometry, including gauge, alignment, cross-level, and vertical profile. Advanced measurements tools—such as laser scanning technology—will be employed to detect and quantify deviations, identify critical defect locations, and record adjacent features including lane striping, parking zones, pedestrian pathways, and streetcar boarding areas.

To address traffic signal timing and streetcar preemption needs, we will engage Urban Systems as a traffic engineering subconsultant. The Urban Systems team will lead the analysis and **redesign of traffic signals and transit signal priority systems** at Harmony Circle and connecting project area streets, ensuring improved coordination between streetcar operations and vehicular traffic. Urban Systems will begin with a detailed traffic count and an assessment of existing signal infrastructure. This data will inform the development of a **traffic simulation model** for key intersections, allowing the team to evaluate performance and test scenarios for improved traffic flow.

Infinity has partnered with **GOTECH** to collect topographic survey data to support surface design elements and provide utilities conflict engineering. To complement this work and mitigate the risk of utility conflicts during construction, **T. Baker Smith** will perform Subsurface Utility Engineering (SUE) services using a combination of geophysical methods and targeted potholing. This investigation will identify and map underground infrastructure—including water mains, gas lines, fiber optic conduits, and other utilities—particularly in areas around Harmony Circle where historical records may be incomplete. Infinity's prior experience on projects such as the Loyola Streetcar, Rampart Streetcar, and Canal Cemetery Terminal has demonstrated the importance of **accurate utility mapping**; in each case, reliance on outdated records posed a significant risk. The proactive use of SUE in those projects resulted in more complete designs and significantly reduced the potential for costly change orders during construction.

Simultaneously, while performing initial site assessment tasks, the Infinity team will keep in the forefront goals of the **ASAP initiative** to improving accessibility. It is expected that findings from the Modernization Plan will be available to incorporate into reports and models in this task.

► Emergency Track Repairs (Task 2.5)

Time: 4 to 6 Weeks

As outlined in the released addendum, currently there is an urgent need for the expedited development of an emergency repair bid package to be conducted immediately following the assessment of current conditions. This task will prioritize the stabilization of the most vulnerable segments of track and embedded track systems, enabling short-term service continuity while the broader design and procurement efforts advance. The Infinity team will collaborate closely with RTA staff to identify high-risk track segments based on field data, visual assessments, and input from maintenance personnel. Infinity will simultaneously evaluate the availability of replacement rails and track components that can be sourced and installed quickly. Based on Infinity's assessment and design work on the Carrollton Double Crossover project, the civil team will explore the potential reuse of existing track components that are currently set to be removed from the Carrollton Avenue median.

► Overall Project Management & Coordination (Task 3)

Time: Duration of the Project

At the outset, Infinity will initiate the project with an internal kickoff meeting and an external coordination session with RTA, as well as the consultants leading the ASAP and Streetcar Modernization Plan projects. From the kickoff meeting, a **comprehensive project schedule** will be developed to outline all major milestones from rail procurement through final construction, incorporating risk mitigation strategies and permitting timelines. ‘

Infinity's assigned Project Manager, Ricardo Contreras, P.E., will proactively manage risks that could impact the schedule or budget, implementing strategies to minimize delays and cost overruns. Rigorous oversight of project activities will be maintained to ensure schedule and budget compliance. Mr. Contreras, P.E. will also be responsible for controlling scope changes, maintaining clear communication with stakeholders, managing expectations, and resolving any conflicts that may arise.

Regular coordination meetings with the RTA Capital Projects team will be held to track progress, identify and address challenges, and provide a clear forecast of upcoming tasks. Infinity will document all meetings thoroughly, including action items from bi-weekly sessions with the RTA team. Project records maintained by Infinity will be organized and readily available for submission to the RTA and the Federal Transit Administration (FTA), as required.

► Rail Procurement Bid Package (Task 4)

Time: 8 to 10 weeks + 2 weeks for RTA review

(Assuming definitive direction and timely information from the Modernization Study consultant.)

Based on the field data collected and preliminary findings from the traffic simulation model, Infinity's design team will initiate development of the Rail Repair Procurement Package. Infinity will finalize rail alignments based on ongoing coordination with the RTA's rolling stock team to ensure compatibility with both heritage and potential low-floor streetcars. As outlined in the RTP, this package is to be expedited and completed in advance of the 30% Schematic Design milestone. The RTP addendum references a potential “short-term” repair bid package to maintain operational continuity of the streetcar service during design and procurement phases. Infinity interprets this to mean that the rail package and the broader schematic design effort—particularly the elements defined under “Additional Project Scope”—may proceed concurrently, but will follow different timelines due to the urgent procurement needs associated with key track components.

The primary rationale for advancing this rail package on an accelerated timeline is the anticipated long lead times for specialized materials such as rails, frogs, double tongue switches, and switch machines—many of which are custom-fabricated and increasingly difficult to source. Early identification of required components and procurement logistics is critical to avoiding downstream construction delays. Accordingly, the package will include a **detailed bill of materials, technical specifications, and a preliminary storage and delivery plan** designed to align with **phased construction scheduling**.

Key Design Considerations

For the rail package, key design considerations will include the specification of rail type, material composition, and potential modifications to existing track alignments to accommodate both historic and modern low-floor vehicles. Based on Infinity's prior experience on similar RTA streetcar projects—including the Canal, Loyola, Rampart, and Canal Cemeteries lines—we anticipate utilizing an **embedded track system configured with 115-pound T-rails paired with fabricated restaining rails**. This configuration **replaces girder guard rails**, which are no longer readily available in the United States, and has demonstrated excellent durability, ride quality, and ease of maintenance in recent applications.

The replacement of special trackwork elements—including frogs, tongue & mates, and switches—will be **custom-engineered to meet the operational needs of both legacy streetcar models** (e.g., the 400-, 900-, and 2000-series) **and future low-floor rolling stock**. These designs will account for vehicle dynamic envelopes, track gauge, wheel-rail interface, and compatibility with tight-radius geometry common within the Downtown Loop. Special attention will be given to curve radii, transition lengths, and the elimination of reverse curves. Where possible, tangent track will be introduced before and after curves in accordance with rail vehicle manufacturer recommendations, such as those from Siemens, to enhance safety and minimize long-term wear. All design specifications will comply with current APTA

and AREMA standards, in addition to RTA's technical requirements.



Utilizing topographic and utility survey data, Infinity's design team will model horizontal and vertical track geometry using Civil 3D. The rail package will include plan and profile drawings, cross-sections, and alignment details to facilitate fabrication, installation, and quality control. The rail design will be integrated with future considerations, including platform height adjustments and catenary system requirements, particularly if the RTA pursues the implementation of modern low-floor vehicles. These vehicles typically feature longer lengths and tighter turning constraints than the current heritage fleet, which may necessitate modifications to track layout, street geometry, travel lanes, curbs, and adjacent pedestrian boarding areas.

This accelerated rail design effort is essential to maintaining the project schedule and minimizing disruption to transit operations. By isolating long-lead procurement needs from the broader project scope and resolving critical technical issues early, Infinity will help the RTA reduce construction delivery risk and provide greater certainty in project budgeting.

► 30% Schematic Design (Task 5)

Time: 12 to 14 weeks + 2 weeks for RTA review

While the rail procurement package is underway, Infinity will initiate the 30% Schematic Design phase, covering both the core project scope and any applicable additional project scope. This phase will integrate new track geometry with essential streetcar system components, including the track foundation, signaling, and overhead power. Additionally, Infinity will conduct up to two page-turn reviews with RTA staff and other key stakeholders within the 30%, 60%, and 90% phases of design.

A key concern in the core scope is the existing ballast foundation, which has deteriorated significantly due to age, water intrusion, and inadequate drainage. In response, Infinity proposes the **replacement of the ballast system with a more resilient, low-maintenance alternative**; such as a reinforced concrete track slab, modeled on the successful installation at the Canal Street Cemetery Transit Center project. This approach has been shown to improve structural performance, reduce vibration, and minimize future maintenance. Enhanced subsurface drainage features will be integrated to prevent water accumulation and extend the life of the new infrastructure.

Infinity has a proven track record in complex urban streetcar environments. As the **prime consultant** for the Canal Street Cemetery Transit Center project, Infinity transformed what RTA and the Department of Public Works (DPW) once described as **"the most dangerous intersection in the city"** into a safe, multimodal transit hub. The project included ADA-compliant ramps, platforms, and shelters for streetcars and buses, along with upgraded signals and pedestrian pathways. These same design principles will guide our approach to the Downtown Loop Phase IV.


Within the additional project scope, Infinity will redesign the streetcar stops around Harmony Circle and along Howard Avenue to meet or exceed ADA accessibility requirements. These upgrades will include the possible inclusion of level boarding platforms, sidewalk extensions, and curb modifications to support safe and efficient boarding. Where space is constrained, the Infinity team will consider **platform buildouts** into parking lanes to achieve required widths without compromising travel lanes, specifically along Carondelet Street and the St. Charles Ave downtown loop.

Modernization Plan Considerations

Special consideration will be given to the turning radii and clearance envelopes required by modern, longer streetcar vehicles. Our design will **support both the existing heritage fleet and potential future low-floor vehicles**, enabling the RTA to preserve operational flexibility while modernizing its system. This includes precise curb and platform geometry adjustments to accommodate constrained turning paths at Harmony Circle and other tight-radius segments within the Downtown Loop. Infinity's experience with ADA improvements is well-established. In 2020, Infinity completed the design for **twelve ADA-accessible streetcar stops along the St. Charles Line**. While those improvements were not intended for the original historic streetcars, they successfully introduced accessibility enhancements for the replica ADA complaint streetcar vehicles, setting a precedent for creating modern upgrades along a historically significant corridor.

For signal infrastructure, Infinity's schematic design, in partnership with Urban Systems, will include a comprehensive assessment and upgrade of the streetcar signal systems. This includes the **integration of wayside detection loops and/or overhead sensor systems compatible with current traffic signal controllers**. These improvements will allow for streetcar priority movement at intersections while maintaining safety for pedestrians and vehicular traffic. Updated signal timing plans will be developed in conjunction with traffic modeling data to reduce delays, improve flow, and account for phased construction needs. Additionally, the signal system design will consider future system extensions along Howard Avenue and potential service expansion.

Given the density and complexity of downtown utilities and transportation networks, the Infinity team will continue its practice of proactive interagency coordination. This includes working closely with the RTA, DPW, the Sewerage & Water Board, Entergy, telecommunications providers, and other stakeholders to align construction timelines, avoid conflicts,

and minimize disruptions. Coordination with the RTA's All Stops Accessibility Program (ASAP) will also occur throughout the design process to maintain consistent universal design principles across projects. 

To sustain transit service continuity during construction, Infinity will develop a construction phasing and traffic control plan. Where necessary, route detours utilizing buses may be implemented in strategic phases—allowing work on Carondelet Street to proceed independently from construction on Harmony Circle. This approach minimizes service interruptions and maintains a safe, predictable experience for riders and nearby office/cultural attraction stakeholders.

All specifications and design documents will adhere strictly to EPA and Louisiana Department of Environmental Quality (LDEQ) regulations governing the handling, removal, and disposal of rail-related materials, including wooden ties, ballast, and steel components. Where feasible, Infinity will identify components suitable for reuse—such as from the Carrollton double crossover project—and coordinate their salvage, documentation, and reintegration into the system to support cost efficiency and sustainable construction practices.

► **60% Design Development (Task 6)**

Time: 10 to 14 weeks + 2 weeks for RTA review

The 60% Design Development phase represents a critical progression from schematic concepts to detailed technical documentation. At this stage, Infinity's focus will shift from broad design intent to the refinement of geometry, integration of utility coordination, constructability, accessibility, and performance requirements. Infinity will begin by incorporating all feedback received from the RTA, DPW, and other key stakeholders during the 30% schematic design reviews. Revisions will be integrated across all core project elements, including track geometry, platform configurations, ADA enhancements, signal infrastructure, and drainage systems. Civil 3D models will be updated to reflect horizontal and vertical alignments, cross-sections, and grading, supported by detailed utility base mapping.

The embedded track system will be further detailed, including final subgrade preparation, pavement sections, joint layouts, and drainage structures. Special trackwork—such as frogs, double switch tongues, switch machines, and wayside controls—will be dimensioned and cross-referenced with vendor specifications to ensure constructability and long-lead procurement accuracy.

All proposed streetcar stops within the project area will be advanced to 60% design detail. This will include dimensioned site plans showing platform lengths, widths, curb ramps, detectable warning surfaces, shelter footprints (where applicable), and compliant slopes and landings. Infinity will continue to collaborate with the ASAP team to explore how platform designs can meet and exceed ADA compliance. Level boarding and low-floor vehicle compatibility designs will be based upon the recommendations from the RTA's Modernization Plan findings.

Traffic signal modifications and transit signal priority (TSP) infrastructure will be detailed in coordination with Urban Systems. The 60% plans will include layout drawings for detection zones, conduit runs, cabinet locations, and signal phasing modifications, as well as updated timing plans based on simulation results. Integration with existing controllers and intersection operations will be verified through field visits and agency coordination. Infinity will also work with the RTA and DPW to develop construction phasing strategies for signal modifications, ensuring that streetcar operations and vehicular traffic remain safe and efficient during installation.

Building on the utility mapping and SUE data gathered during schematic design, the 60% plans will identify any conflicts between proposed improvements and existing underground utilities. Where conflicts are found, the Infinity team, led by our teaming partner GOTECH, will prepare adjusted alignments or propose utility relocations in coordination with the Sewerage & Water Board, Entergy, telecommunications providers, and DPW.

This design stage will include development of preliminary construction sequencing plans. Infinity will identify logical work zones to facilitate staged construction—minimizing impacts on pedestrian access and traffic circulation. Each phase of construction will include corresponding traffic control concepts, detour routes, signage, and pedestrian accommodation strategies. These will be reviewed with RTA operations staff and the City's traffic engineering team.

► **90% Permit Set and Permit Approvals (Task 7)**

Time: 10 - 14 weeks + 2 weeks for RTA review

The 90% Design Development phase marks the transition to a near-final set of construction documents. At this stage, Infinity's focus will shift to refining technical accuracy, resolving outstanding design issues, incorporating final stakeholder input, and preparing the project for permitting, bidding, and phased construction. The 90% design will build upon the 60% Design Development submittal, incorporating all comments received from RTA, the Department of Public Works (DPW), Sewerage & Water Board, utility owners, and other stakeholders. Infinity will also finalize coordination with RTA's ASAP and Streetcar Modernization Plan consultants to verify alignment with concurrent and future system upgrades.

Infinity will complete detailed design documents that are essentially construction-ready. A key deliverable at this stage

is the detailed construction phasing plan. This plan will:

- Break down construction into logical stages by roadway corridor segment
- Sequence work to minimize disruption to vehicular and pedestrian access
- Define alternate routes for each phase for local traffic accessing hotels and office buildings
- Assist the RTA in developing strategies for maintaining transit operations
- Coordinate with RTA operations staff and public safety agencies to ensure safe implementation

► **100% Construction Documents, Bid Package, and Bid Preparation Assistance (Task 8)**

Time: 3 to 4 Weeks

The Infinity team's approach to the 100% Construction Documents phase focuses on delivering a complete, coordinated, and constructible set of plans and specifications that are ready for public bidding and contractor execution. This phase will synthesize all prior design development work, stakeholder feedback, permitting agency input, and constructability reviews into a final, polished bid package that reflects the full project scope. All unresolved design issues from the 90% submittal—captured in the design issue log—will be addressed and closed out.

Infinity will also assist RTA in the preparation of bid forms, general and special provisions, and any bid alternates or unit price schedules needed to support competitive procurement. Alongside **AECOM**, our team will conduct internal QA/QC reviews and coordinate cross-discipline checks to eliminate discrepancies or omissions. Additionally, Infinity will support the RTA during the bid phase by responding to contractor questions, issuing clarifications or addenda as needed, and participating in pre-bid meetings. The result will be a comprehensive and buildable construction document package that provides the clarity for the contractor to execute the project safely, efficiently, and in full alignment with the RTA's objectives.

► **Cost Estimates and Management of Project Budget (Task 9)**

Time: Duration of the Project

Infinity's cost control strategy is grounded in a disciplined, milestone-based approach to design development. At each major submittal—30%, 60%, and 90%—we will deliver detailed, itemized cost estimates that reflect the evolving design and incorporate accurate quantities, current market pricing, and anticipated construction phasing. This progressive estimating process allows for early identification of cost drivers and enables proactive decision-making to keep the project aligned with the established budget.

To enhance cost accuracy and consistency throughout the project lifecycle, Infinity has engaged a seasoned cost estimating consultant, **AECOM**. Their extensive experience with transit infrastructure and urban public works projects lends itself to reliable, market-informed perspective on construction pricing. AECOM will also serve as a **QA/QC** partner during design development, reviewing quantity takeoffs, unit prices, and scope alignment to support cost and schedule predictability.

Value engineering will be applied strategically, with a focus on identifying meaningful cost savings and efficiencies that do not compromise safety, performance, or long-term durability. The value engineering process will begin as early as the 30% submittal and continue through the 90% stage, with all recommendations reviewed collaboratively with RTA staff. Measures under consideration may include deferring select elements of the project—such as phasing construction along Carondelet Street into a future contract—if doing so yields significant cost benefits without disrupting system operations. Infinity will also explore the reuse of structurally sound track components, such as frogs, mates, or crossover assemblies, where inspections confirm that performance and safety standards can be maintained.

► **Safety and Hazards Analysis (Task 10)**

Time: Duration of the Project

Infinity recognizes that safety is paramount in the design and delivery of the new streetcar infrastructure, particularly in a dense, multimodal urban corridors such as the Downtown Loop. To ensure that safety considerations are fully embedded into the design process, Infinity has partnered with AECOM to lead the preparation of the **Safety Compliance Plan**. This plan will ensure conformance with FTA requirements and will provide a layer of independent oversight to confirm that all critical safety elements—such as track clearances, transition geometry, and special trackwork tolerances—are fully addressed and integrated into the procurement documents. AECOM will also contribute to the ongoing hazard analysis log and coordinate safety verification measures as the design progresses toward construction.

Safety mitigation strategies will be incorporated directly into the design—whether through geometry refinements, visibility improvements, barrier placement, signal phasing, or construction sequencing adjustments. Special attention will be given to areas with complex maneuvering, such as Harmony Circle, where tight turning radii, limited sightlines, and shared-use travel paths create higher operational risk.

► **Construction Administration (Task 11)**

Time: To be Determined

Infinity Engineering's approach to the Construction Administration (CA) phase is centered on proactive communication,

technical oversight, and quality assurance. As construction begins, our team will maintain a consistent presence in the field, attending regular site meetings with the contractor, RTA project staff, and other stakeholders to monitor progress, address issues in real time, and coordinate construction activities with ongoing transit operations.

Infinity's construction administration services will include timely responses to Requests for Information (RFIs), evaluation and approval of contractor submittals, and issuance of Architect's Supplemental Instructions (ASIs) where clarifications are needed. These tasks will be executed with a focus on minimizing delays and ensuring continuity between design intent and field execution. Infinity's staff will conduct regular site visits to observe construction activities, verify that work is proceeding in accordance with the plans and specifications, and document progress through field reports and photo logs. Special attention will be paid to critical elements such as track alignment, subgrade preparation, special trackwork installation, signal and detection system integration, and ADA-compliant platform construction.

Toward the end of construction, Infinity will assist in the development and management of punch lists, conduct substantial completion inspections, and support the preparation of final closeout documentation. This will include reviewing as-built drawings, warranties, manuals, and operation and maintenance documentation submitted by the contractor. Our team will confirm that all project elements meet performance criteria and are ready for transition into the testing, commissioning, and revenue service phases.

► **Testing and Commissioning (Task 12)**

Infinity's approach to the Testing and Commissioning phase of the St. Charles Streetcar – Downtown Loop Track Replacement, Phase 4 project is designed to verify all infrastructure components are fully functional, integrated, and ready for safe public operation. This phase will begin with comprehensive functional testing of all newly installed track elements, including embedded rails, switches, frogs, and turnouts. These components will be inspected and tested to confirm compliance with project specifications, industry standards (such as AREMA), and operational tolerances. Specialty contractors, such as Erwin, may support in conducting rigorous performance tests and certification procedures, ensuring that every element of the rail system performs reliably under actual service conditions.

Signal systems and transit signal priority (TSP) infrastructure will also undergo detailed validation. Working in coordination with RTA operations staff, Urban Systems, and municipal traffic departments, Infinity will test the integration of preemption systems, detection loops, and traffic signal controllers. These tests will simulate real-time streetcar operations to confirm that signal timing, detection response, and preemption sequences function as intended. The objective is to ensure seamless coordination between streetcar movements and roadway traffic.

Throughout the commissioning period, Infinity will provide technical support during RTA-led operator training sessions. This includes assisting streetcar operators and maintenance personnel in understanding the operational nuances of the newly installed systems—particularly around switches, turnouts, and upgraded signalized intersections. Our field engineers will be available to answer questions, support live testing scenarios, and help resolve technical issues during the early service testing period, ensuring a confident and well-informed transition to public operation.

Final commissioning will involve a coordinated effort between Infinity, RTA, and specialty subcontractors to verify that all systems are functioning as a cohesive unit. This includes streetcar test runs along the corridor, verification of signal timing at intersections, inspection of stop integration and boarding platforms, and confirmation that all safety and operational criteria are met. Once all components have been tested and accepted, a licensed professional engineer will issue a final certification of readiness, formally confirming that the system is safe and fully prepared for public use.

► **Closing**

As a New Orleans Metropolitan Area-based firm serving clients across the Gulf Coast, Infinity brings a deep understanding of the region's topography, hydrography, and subsurface conditions. Our team consistently integrates local environmental factors into every design, leveraging firsthand experience with the unique challenges of the area. Because our firm is locally rooted we are intimately familiar with the area's silty clays, high groundwater tables, variable Mississippi River stages that impact excavation, and the seasonal weather extremes that define the Gulf Coast.

Presently, Infinity is in a phase of expansion, recently welcoming a civil Professional Engineer and civil Engineering Intern to our team. This growth phase reflects how Infinity currently **does not have a significant backlog** of project assignments. In fact, our engineering team is in the final stages of several projects. This progress leaves our resources unburdened and poised to tackle the Downtown Loop Phase IV project. While efficiency remains a central focus for Infinity, our unwavering commitment to top-tier design quality is equally vital. With Infinity's full-time staff of thirty-seven and our five teaming partners, we are confident that we have assembled a team with the streetcar infrastructure engineering expertise capable of effectively and efficiently completing the Downtown Loop Phase IV project. Infinity takes great pride in the many streetcar related projects our team has completed over the years. We respectfully request the Regional Transit Authority to select Infinity Engineering Consultants as the prime consultant to lead the design of the streetcar rail improvements around Harmony Circle. Should any additional resumes or examples be needed to ascertain the team's qualifications, please feel free to contact Raoul Chauvin, P.E. at rchauvin@infinityec.com.

John Lawrence, P.E.

Electrical Engineering Manager
Expertise: Industrial Power Systems



Mr. Lawrence brings over 34 years of experience in electrical engineering, project management, quality control, and the supervision of electrical design to the role of Infinity's Electrical Engineering Manager. Throughout his career, Mr. Lawrence has led numerous projects involving the installation of generators, lighting systems, and electrical instrumentation. Mr. Lawrence's deep electrical expertise spans power and control systems, SCADA technology, and instrumentation for a wide range of utility infrastructure. As Electrical Engineering Manager Mr. Lawrence oversees electrical scope development, schedule coordination, budgeting, estimating, and cost control. Additionally, Mr. Lawrence is also highly experienced in providing construction administration services for electrical projects.

Jones Creek Road Greenfield Street Lighting – Baton Rouge, LA

Engineer of record overseeing the electrical design, and development of drawings for roadway lighting for a greenfield project extending Jones Creek Rd from Tiger Bend Rd to Airline Hwy. The electrical designs included electrical services and roadway lighting designed to MOVEBR Design Guidelines for the nearly 1.4-mile road expansion. The MOVEBR program added an additional design package for streetlighting along a new roundabout on Jefferson Highway.

Metairie Road Street Lighting Improvements – Metairie, LA

Engineer of record overseeing the electrical designs for new street lighting along 1.3 miles of Metairie Road from Bonabel Blvd to Severn Ave. The electrical designs call for the removal of the existing street lighting, as well as the installation of new fixtures and wiring. Infinity performed a lighting analysis as well as a photometric analysis to establish the required distribution and spacing of the new lighting fixtures.

Colonial Club Drive Street Lighting Improvements – Harahan, LA

Engineer of record overseeing the electrical designs for new street lighting along Colonial Club Drive in Harahan, LA. Infinity's electrical scope calls for the removal of the existing street lighting and the design of new wiring and lighting for the approximately 3,200 feet of roadway. Infinity performed a lighting analysis as well as a photometric analysis to establish the required distribution and spacing of the new lighting fixtures.

Colony Place Street Lighting – Metairie, LA

Engineer of record overseeing the electrical designs for new streetlights along a 1350' stretch of Colony Place from Eddy Rd. to West Metairie Ave. in Metairie, LA. Infinity's designs included new electrical service disconnect, installation of eleven new streetlights, and performing a lighting analysis to establish the distribution required for the light fixture.

Sewerage & Water Board West Power Complex – New Orleans, LA

Principal electrical engineer for the design of routing high voltage electrical distribution to the Sewerage & Water Board's proposed new West Power Complex. The electrical designs include the addition of underground electrical duct banks to run cables from the C7 interface to the substations. The electrical duct banks also required routing of the cables, location of manholes, and performance of pull calculations. Additionally, provided designs for the above ground high voltage cable routing between the utility rack and the Sycamore substation.

Jefferson Parish Water Department New Electrical Generators – Marrero, LA

Project manager for the design to upsize new backup generators from 750kW to 1MW to provide for the full redundant power of the system at the Jefferson Parish water plant in Marrero, LA. The upsize modification required the modification of the existing switchgear to accommodate the new size of the backup generators to allow them to provide their maximum power. The new generators were designed to be diesel powered with a new day tank connected in parallel to the existing day tank with a new transfer valve between both tanks.

Active Professional Registration

Professional Engineer

Electrical

#27941/ Louisiana

Years of Professional Service

2 Years with Infinity

34 Years Total

Education

University of New Orleans

Bachelor of Science:

Electrical Engineering - 1990

Contact

Office: 504.304.0548

jlawrence@infinityec.com

Office Location: Metairie, LA

Kevin Hurtt, P.E.

Resident Inspector Manager

Expertise: Infrastructure & Utilities



Mr. Hurtt holds over five years of experience of analysis, design, and inspection of civil/structural projects. When working on a engineering designs, Mr. Hurtt seeks to collaborate closely with clients to understand their needs in order to implement the project goals effectively and efficiently. Mr. Hurtt has experience coordinating with various disciplines, including electrical and mechanical, to ensure all phases of a project fit together seamlessly. Additionally, Mr. Hurtt serves as the Manager for Infinity's resident inspection and construction administration operations. Mr Hurtt often serves as a liaison between Infinity's inspectors, clients, and construction consultant to coordinate project timelines and the proper following of the project's construction drawings.

West Metairie Avenue Roadway Rehabilitation Design & Construction Administration – Metairie, LA

Provided construction administration and managed resident inspection services for roadway and drainage improvement to (2) miles of West Metairie Avenue between Roosevelt Boulevard and David Drive. The project scope also included the reconstruction of the adjacent sidewalks with side street turnout to meet ADA criteria.

Lakeshore Group C Street Reconstruction – New Orleans, LA

Under the direction of Infinity's engineer of record, assessed existing drainage conditions and designed new pipe layout to improve drainage and meet current Orleans Parish requirements. Assessed existing street and side walk conditions and made recommendations for repair or replacement.

Jourdan Road Wharf Substructure Repairs CMAR – New Orleans, LA

Participated as a project manager for a team that assessed the condition of an existing pile supported wharf facility operated by the Port of New Orleans. Designed pile repair methods for various pile conditions and accessibility. Also designed and prepared drawings for the demolition and reconstruction of a section of wharf. Coordinated with geotechnical and materials testing subcontractors. Project was designed on a CMAR basis.

SWBNO Static Frequency Changer Utility Rack – New Orleans, LA

Designed a utility rack for the New Orleans Sewerage and Water Board's Carrolton Water Plant. The rack was designed to support thirty-eight 6" electrical conduits as well as gas, water, ammonia, and service air lines over a distance of approximately 1600 feet. The project also included the design of two 30-foot-tall pull box structures and an enclosed structure to transition the conduits from the rack to an underground duct bank. The design was completed using RISA-3D software.

Sewerage & Water Board Static Frequency Changer Utility Rack – New Orleans, LA

Under the direction of Infinity's engineer of record, assisted in the design of improvements to an existing harbor facility. Tasks included design of column base plates and a structure to house oil disposal containers. The structure included a reinforced concrete slab, a spill control and secondary containment wall, and a roof. Design was completed using Bentley's RAM Elements software and traditional hand calculations.

St. Charles Water Intake Platform – Norco, LA

Structural lead for a team that assessed and designed repairs for a St. Charles Parish Waterworks intake platform that suffer damage due to an alision. The designs included the stabilization of the platform and rehabilitation to return it to full working order.

Active Professional Registration

Professional Engineer

Civil

#48668 / Louisiana

Years of Professional Service

5 Years with Infinity

6 Years Total

Education

University of New Orleans

Bachelor of Science: Civil and

Environmental Engineering - 2019

FAA Part 107 sUAS

No. 4519050

Contact

Office: 504.304.0548

khurtt@infinityec.com

Office Location: Metairie, LA



Stuart Hart, P.E.

Title: Senior Civil Project Engineer

Personnel Classification: Senior Civil Engineer

4001 Division Street

Metairie, LA 70002

504-304-0548

www.infinityec.com

Experience:

Infinity: < 1 Year

Total Career: 12 Years

Discipline:

Civil/Structural
Engineering

Registration:

Professional Engineer

Louisiana No. 44884

TWIC Holder

Stuart Hart, P.E. is a Licensed Professional Civil Engineer with over 12 years of progressive experience in civil design engineering across the Greater New Orleans area. As a key team member at Infinity Engineering, Mr. Hart contributes to the planning and delivery of resilient infrastructure projects with a focus on floodwater mitigation, coastal protection, and sustainable public space development. Mr. Hart has led and supported the design of public roadways, traffic diversion plans, site grading, drainage systems, utility replacements, and coastal protection structures—frequently integrating green infrastructure such as rain gardens, permeable pavements, and underground stormwater storage solutions.

Mr. Hart brings deep technical expertise in AutoCAD Civil 3D and MicroStation, and is highly skilled in preparing construction drawings, technical specifications, and cost estimates. Mr. Hart's experience includes engagement with public stakeholders, interagency coordination, and use of triple bottom line analysis to evaluate long-term environmental, social, and economic project benefits. Mr. Hart brings to the Infinity team a collaborative approach and commitment to delivering high-quality, community-focused engineering solutions.

Education:

Bachelor of Science:
Civil Engineering - 2014

11/2024 – Present

Senior Civil Project Engineer

Infinity Engineering Consultants, LLC.

Hickory Ave. to Elmwood Park Blvd. Waterline Improvements – Harahan, LA

Designed a new waterline along the shoulder of Hickory Ave. for a mile-long stretch of Jefferson Highway. Additionally created temporary traffic control plan for road closures along the stretch of highway.

Port of South Louisiana Globalplex Facility Improvements – Reserve, LA

Performed peak flow calculations to assess the need for drainage improvements to the area surrounding the Globaplex building 71 at the Port of South Louisiana.

IMTT St. Rose Containment Evaluation – St. Rose, LA

Imported surfaces from point clouds into AutoCAD Civil 3D software and analyzed existing surface conditions of the containment facility vs design requirements needed for various tank failure conditions.

Lakeview Groups C and D Drainage Improvements – New Orleans, LA

Assessed and recommended various repairs to utilities and roads in the Lakeview Area.

River Forest Lift Station No. 1 Rehabilitation – Laplace, LA

Oversaw the design of a lift station replacement in the River Forest neighborhood.

2018 – 2024

Civil Project Engineer

Stantec Consultants

- Developed the layout of the Mid Breton Sediment Diversion visitors center parking lot and drainage design.

- Developed flood water protection plan for New Orleans Gentilly neighborhood using rain gardens canals and pervious pavements. Designed rain garden layouts and drainage for canals. Also used triple bottom line analysis software to quantify the social, economic, and monetary benefits of the project over next 50 years.
- Designed and engineered a coastal protection wall around sensitive coastal Louisiana areas in Jean Lafitte National Park using Civil 3D design software.
- Designed a stormwater retention system in the St. Bernard neighborhood in New Orleans using a combination of rain gardens and a large underground storage container. Also incorporated a public boardwalk with park areas into the design, along with baseball, basketball, and football fields that were built on top of the below-ground storage container.

2014 – 2018

Civil Engineer-in-Training

Stanley Consultants

- Calculated dredge quantities and designed navigable canal channels for waterways in Plaquemines Parish. Inspected and evaluated catch basins for the Sewerage and Water Board of New Orleans for blockages and repairs.
- Developed plan, profile, and cross section sheets calculating material quantities for the Baton Rouge Taxiway F extension.
- Assessed pavement and roadway damage and planned repairs for the City of New Orleans Department of Public Works project in the Pontchartrain Park and Village De L'est neighborhoods.

2013

Civil Intern

All South Consulting Engineers

- Coordinated with engineering and drafting disciplines to accurately represent damaged areas in AutoCAD drawings for submission to the City of New Orleans.
- Compiled reports containing evidence and road repair recommendations for submission to the City of New Orleans.
- Designed pipe flow systems using ArcGIS and WaterCAD software.

14. Brief resumes of key persons anticipated for this project (clearly identify if alternate office location if different than listed in item 3).

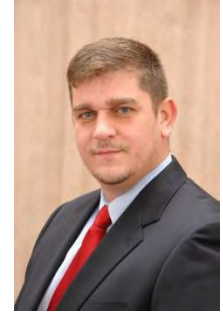
<p>a. Name and title: Jonathan McDowell, PE, Associate Vice President</p>	<p>a. Name and title: Bill Norquist, PE, Vice President</p>
<p>b. Position or assignment for this project: Deputy Project Manager</p>	<p>b. Position or assignment for this project: Project Manager</p>
<p>c. Years of professional experience with this firm: 22 With other firms: 6</p>	<p>c. Years of professional experience with this firm: 25 With other firms: 16</p>
<p>d. Education: Degree / Year / Specialization BS, in Civil Engineering / 1996 / Louisiana State University</p>	<p>d. Education: Degree / Year / Specialization BST, Civil Engineering Technology / 1984 / Civil Engineering AST, Construction Engineering Technology / 1984 / Construction Engineering AST, Architecture, Spring Garden College / 1984 / Architecture</p>
<p>e. Active registration or applicable certifications: State / Discipline / License number / First year registered LA/Civil/PE.0030508/2003; MS/PE/PE.18686/2003; AR/Civil/PE.19772/2019; TX/Civil. PE.142378/2021 Also registered in MS, AR, and TX. ATSSA Traffic Control Supervisor, E-Railsafe, TWIC, DOTD Traffic Engineering Process and Report, NHI Courses for NEPA and Highway Safety Manual.</p>	<p>e. Active registration or applicable certifications: State / Discipline / License number / First year registered PE - Pennsylvania / Civil / PE-042589-E / 1992 PE – Arizona / Civil / 49685 / 2009 PE – Maryland / Civil / 46406 / 2015</p>
<p>f. Experience and qualifications relevant to this project: Mr. McDowell has over 28 years experience as a Project Engineer and Project Manager for a wide variety of transportation and public infrastructure projects throughout New Orleans and southeast Louisiana. His roles have included all phases of transportation and site development projects for various local public agencies. He has participated in the RTA streetcar program since 2003. His critical design roles include access management, road safety, and compliance with ADA and PROWAG on roadway and site projects. Mr. McDowell’s professional experience includes the following representative projects:</p> <ul style="list-style-type: none"> - RTA, Restoration of the Rampart and Canal Street intersection following the Hard Rock Collapse, Deputy PM and MOT Designer (2022-2024) - RTA, Rampart Street/St. Claude Avenue Rail Expansion, Deputy PM and Infrastructure Task Lead (2012-2016) - RTA, Loyola Avenue Canal Street to the UPT Rail Expansion, Deputy PM and Infrastructure Task Lead (2010-2013) - SWB, Replacements of the St Charles Avenue Tracks at Napoleon Avenue and Jefferson Avenue for SELA Box Canals, Infrastructure Task Lead (2011-2012) - Louisiana Superdome and Exposition District, PM and PE for Champions Square Site Development and ADA for Accessibility Improvements to the Superdome and New Orleans Arena (2010) 	<p>f. Experience and qualifications relevant to this project: Mr. Norquist has over 41 years of experience in the design, planning, construction, and maintenance of rail transit and freight railroad projects in the US and abroad. He is a Sr. Project Manager and an AECOM Technical Manager for Rail and Rail Transit design. His involvement in rail transit, streetcar and New Orleans projects included the project management, technical supervision of the design of track and other technical disciplines and providing construction phase design support services. Mr. Norquist’s professional experience includes the following representative projects:</p> <ul style="list-style-type: none"> - RTA, Rampart Streetcar Line: Emergency Recovery Project, New Orleans, Louisiana. Project Manager for the assessment, engineering design and construction services for the emergency repair of damage sustained after the Hard Rock collapse. [2/2020 – 2/2025] - RTA, Rail Expansion (Streetcar) Final Engineering Rampart Street/St. Claude Avenue, New Orleans, Louisiana. Project Manager. [9/2011 - 12/2016] - RTA, Canal Street to Union Passenger Terminal Rail Expansion - Final Engineering, New Orleans, Louisiana. Project Manager. [12/2010 - 3/2014] - Sewerage and Water Board, SELA Napoleon Avenue Covered Canal (Carondelet to Constance), New Orleans, Louisiana. Rail Task Leader [12/2011 – 9/2015] - Sewerage and Water Board, SELA Jefferson Avenue Canal No. 11 (Dryades St. to Constance St.), New Orleans, Louisiana. Rail Task Leader [9/2011 – 8/2015] - National Park Service, Lowell National Historic Park Trolley Extension, Lowell, Massachusetts. Lead Design Engineer [3/2004 - 10/2006]

14. Brief resumes of key persons anticipated for this project (clearly identify if alternate office is different than listed in item 3).

<p>a. Name and title: John Schexnayder, P.E., CFM, CSM / Chief Engineer</p>	<p><u>Pointe-Marie: A New Village, Baton Rouge, LA</u> Mr. Schexnayder is the project manager and engineering lead for the on-going design and construction of Pointe-Marie. This project entails community development of a mixed-use village encompassing over 120 acres. His duties include design of roadways, drainage, grading, sanitary sewer system, utility layout and coordination, and overseeing construction activities.</p>
<p>b. Position or assignment for this project: GOTECH Chief Engineer</p>	
<p>c. Years of professional experience with this firm: <u>11</u> With other firms <u>7</u></p>	
<p>d. Education: Degree / Year / Specialization Bachelor of Science Degree / 2003 / Civil Engineering Louisiana State University</p>	<p><u>@Highland Commercial Development, Baton Rouge, LA</u> Mr. Schexnayder was the project manager and civil engineer for the on-going @Highland Commercial Development, This project entailed the development of a 9-acre technology campus, located in Baton Rouge, LA. His duties included design of roadways, grading, drainage, sanitary sewer system, utility layout, and overseeing construction activities.</p>
<p>e. Active registration or applicable certification: 2007 / Civil Engineer LA License No. 33284 2012 / Civil Engineer MS License No. 20942</p>	<p><u>Prospect Blvd Sidewalks – LA DOTD – Terrebonne Parish (4400010389)</u> Mr. Schexnayder was the project manager for this project which consists of providing the topographic survey and design for approximately 2,800' of ADA compliant sidewalk along the eastern side of Prospect Blvd from LA 24 (East main St.) to Woodside Drive in Terrebonne Parish. This was an Urban Systems Project prepared for the Terrebonne Parish Consolidated Government in accordance with LADOTD requirements. GOTECH's role included topographic survey, preliminary plans, and final plans, in accordance with Louisiana Department of Transportation and Development standards. The final plans included typical sections and details, summary of estimated quantities, cost estimate, and stormwater prevention pollution plan.</p>
<p>f. Experience and qualifications relevant to the proposed project:</p> <p>Mr. Schexnayder is a registered professional civil engineer and serves as a project manager at GOTECH, Inc. His duties include design, coordination, technical construction document preparation, specification preparation, and quality control review for projects.</p> <p>Mr. Schexnayder also represents GOTECH as a project manager at meetings with public, federal, state and local government and private owners.</p> <p>Mr. Schexnayder has a variety of experience on drainage improvement projects, sewer system design, pump station upgrades, roadway design, site work design and cost estimating. He also has experience in hydrologic and hydraulic modeling and analysis.</p> <p><u>Regional Transit Authority of New Orleans – Interim Downtown Transit Hub Design (2022)</u> For the New Orleans Regional Transit Authority (RTA), GOTECH, Inc. was the engineering consultant selected to provide design services for the Interim Downtown Transit Hub project. Mr. Schexnayder was the lead civil engineer on the project and he supervised the design services that were provided. He also coordinated the electrical and landscaping services provided on the project by subconsultants. Phase I of project involved modifications to bring bus operations to the site. Phase II created lighting and landscaping features at the site. As the Prime consultant, GOTECH's role in this project included surveying, civil engineering design, stakeholder engagement, management of electrical and landscape design, and construction administration.</p>	<p><u>Milan Group A: City of New Orleans, Department of Public Works</u> Mr. Schexnayder was the project manager for a substantial roadway project in New Orleans, LA. This project entailed pavement repairs and rehabilitation of several blocks of city streets, including pavement patch and overlay and utility coordination.</p> <p><u>Baker High School, Baker, LA</u> Mr. Schexnayder was the project manager for this project which involves rebuilding and restructuring Baker High School's campus in response to major flood damage that occurred during the flood of 2016. As part of this project, several flood-damaged buildings are being demolished and a new main campus building is being constructed. GOTECH's role in this project included infrastructure design to facilitate the rebuilding and restructuring of the campus. This included design of site grading and earthwork, roadway and entrance roads, pedestrian paths, drainage, sewer, utilities, and erosion control.</p>

TJ Stokes, PE

T. Baker Smith *SUE Lead Professional*



Education

Bachelor of Science, Industrial Engineering, 2009

Professional Licenses, Certifications & Training

MS Professional Engineer #30256

Traffic Control Supervisor/Technician; ATSSA

Professional Qualifications

TJ Stokes, PE leverages 15 years of experience providing engineering services in the transportation industry. As practice leader, he composes and manages integrated project teams to ensure transportation clients' needs are met and exceeded. TJ gained his knowledge of LADOTD procedures during his tenure in the Road Design Section and utilizes this information to help coordinate and communicate between the multiple disciplines required to produce the highest quality of deliverable. He successfully manages numerous SUE projects specializing in transportation and roadway projects. As the Lead Professional for Utility Engineering, he is currently overseeing the completion of LADOTD and MDOT retainer contracts along with numerous other public and private client projects. He also has extensive experience managing and overseeing utility coordination and design projects. TJ maintains the ATSSA Traffic Control Supervisor certification.

Project Experience

S.P. H.012541.5, LA 594; Overpass I-20, LADOTD, Ouachita Parish, LA – Contract administrator. Responsible for coordination with LADOTD task manager and external topographic surveyor. Performed QA/QC to ensure compliance with ASCE 38-02.

S.P. H.003931.5, Calcasieu River Bridge (HBI), LADOTD, Calcasieu Parish, LA – Project Manager/Engineer of Record. Responsible for all Subsurface Utility Engineering and Utility Coordination. Oversaw all Quality Level B and Quality Level A SUE service and performed QA/QC on the topographic survey submitted to LADOTD to ensure compliance with ASCE 38-02. Reviewed all utility coordination procedures including conflict matrix and conflict plan creation.

S.P. No. H.014747.5, Southern University Ravine Protection; LADOTD; East Baton Rouge Parish, LA – Contract administrator/Engineer of Record. Responsible for all Subsurface Utility Engineering Quality Level B and Quality Level C services and performed QA/QC on the topographic survey submitted to LADOTD to ensure compliance with ASCE 38-02. Ensured all work was completed within the truncated time frame.

I-10/Loyola Ave. Interchange Improvements; LA DOTD; Jefferson Parish, LA – Engineer in Responsible Charge. TJ performed SUE and utility surveying for the design of an overpass connector for the interchange of Loyola and I-10 in New Orleans providing additional access to the New Orleans Airport. ASCE 38-02 QL B services were provided throughout the project's path and all associated surveying included above ground utility lines and features. The project area was highly congested with numerous owners and facilities throughout the area. GPR was utilized to locate the facilities correctly because the age of many of the sewer and water utilities rendered pipe and cable locators ineffective. Numerous communication duct banks along Loyola and Veterans were located which eliminated the expense of relocating these duct banks. This

project was on a fast pace due to the airport construction progress and was completed within six months. Multiple crews were utilized and close coordination with the Client allowed for the delivery two weeks ahead of schedule.

Move Ascension Bluff Road, LA 73 Connector; Ascension Parish Government; Ascension Parish, LA – Project Manager. TJ provided SUE services for the Bluff Road–LA 73 Connector project as part of the Move Ascension Program. Quality Level B services were provided throughout the project limits to determine the horizontal location of utilities to assist with the roadway design. Quality Level A test holes were also provided to provide vertical information where utilities would conflict with roadway or drainage design.

Move Ascension Parker Road and LA 929 Widening; Ascension Parish Government; Ascension Parish, LA – Lead Professional. TJ provided SUE services for the Parker Road and LA 929 Widening project as part of the Move Ascension Program. Quality Level B services were provided throughout the project limits to determine the horizontal location of utilities to assist with the roadway design. Quality Level A test holes were also provided to provide vertical information where utilities would conflict with roadway or drainage design.

Move Ascension LA 73 – Bluff Road Connector Roundabout; Ascension Parish Government; Ascension Parish, LA – Lead Professional. TJ provided SUE services for the LA 73 – Bluff Road Connector Roundabout as part of the Move Ascension Program. Quality Level B services were provided throughout the project limits to determine the horizontal location of utilities to assist with the roadway design. Quality Level A test holes were also provided to provide vertical information where utilities would conflict with roadway or drainage design.

Move Ascension, LA 44 & Parker Roundabout; Ascension Parish Government; Ascension Parish, LA – Lead Professional. TJ provided SUE services for the LA 44 & Parker Roundabout as part of the Move Ascension Program. Quality Level B services were provided throughout the project limits to determine the horizontal location of utilities to assist with the roadway design. Quality Level A test holes were also provided to provide vertical information where utilities would conflict with roadway or drainage design.

I-55 Widening Church to Goodman, MDOT, DeSoto County, MS – SUE Lead Professional. TJ performed SUE services from Quality Levels D-A which helped to determine the actual location of existing utilities. He also performed utility coordination during design and construction for the relocation of existing utilities.

Perry Smith

T. Baker Smith *SUE Project Manager*



Education

Associate of Science, Electronics, 2007

Professional Licenses, Certifications & Training

ATSSA Traffic Control Supervisor

Professional Qualifications

Perry Smith is a SUE Project Manager with over 21 years of experience in the utility field and has served in various roles. His field experience for LADOTD projects began in 2017 where he has been involved in dozens of SUE projects of various sizes across the state of Louisiana. He has participated in all stages of a utility project from field data collection to final deliverable preparation. Perry has a thorough knowledge of ASCE 38-22, and the technology required to achieve the necessary quality levels. He is a certified ATSSA Traffic Control Supervisor (TCS).

Project Experience

North Columbia Street Bridge Replacement; City of Covington; Covington, LA – SUE Project Manager. Responsible for all Subsurface Utility Engineering Quality Level A and Quality Level B services and performed QA/QC on the topographic survey submitted to the City of Covington to ensure compliance with ASCE 38-02.

S.P. No. H.003931.5, Calcasieu River Bridge (HBI); LADOTD; Calcasieu Parish, LA – Task Manager. Managed all Quality Level A SUE services and provided QA/QC for Quality Level B SUE services to ensure compliance with ASCE 38-02. Performed records research for all utility companies and verified all available records were obtained.

S.P. H.014747.5, Southern University Ravine Protection; LADOTD; East Baton Rouge Parish, LA – Field Manager. Managed the field staff providing Subsurface Utility Engineering Quality Level B and Quality Level C services and performed QA/QC on the field data. Ensured all work was completed within the truncated time frame.

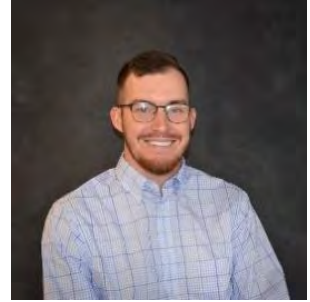
S.P. H.014670.5, LA 1270: LA 77 to End of Control Section; LADOTD; Iberville Parish, LA – Field Manager. Managed the field staff providing Subsurface Utility Engineering Quality Level B and Quality Level C services and performed QA/QC on the field data. Ensured all work was completed within the truncated time frame. LADOTD Location and Survey field staff performed the topographic survey and we ensured a smooth working environment for data collection.

S.P. H.012541.5, LA 594, Overpass I-20; LADOTD; Ouachita Parish, LA – Field Manager. Managed the field staff providing Subsurface Utility Engineering Quality Level B and Quality Level C services and performed QA/QC on the field data.

MovEBR Plank – Nicholson, Subsurface Utility Engineering; City/Parish of Baton Rouge; Baton Rouge, LA – SUE Field Manager. Providing SUE services with the 15 designated project sites in general accordance with the recommended practices and procedures described in ASCE Publication CI/ASCE 38-22, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.

Kaleb Brooks

T. Baker Smith *SUE Field Manager | QA/QC*

**Professional Qualifications**

Kaleb Brooks is the SUE Field Manager in the Baton Rouge, LA office. He is primarily responsible for managing and the coordination of SUE field associates and equipment. As a SUE field manager, Kaleb works with the Project Manager and project team in delivery of Subsurface Utility Engineering projects. Kaleb performs quality control on all fieldwork to ensure the most accurate utility information.

Project Experience

S.P. H.003931.5, Calcasieu River Bridge (HBI), LADOTD, Calcasieu Parish, LA – Field Manager. Managed the field staff providing Subsurface Utility Engineering Quality Level B and Quality Level A services and performed QA/QC on the field data.

S.P. H.014747.5, Southern University Ravine Protection, LADOTD, East Baton Rouge Parish, LA – Senior SUE Tech. Performed Subsurface Utility Engineering Quality Level B and Quality Level C field investigations. Utilized correct geophysical equipment to mark underground utilities. Ensured all work was completed within the truncated time frame.

S.P. H.012541.5, LA 594; Overpass I-20, LADOTD, Ouachita Parish, LA – Senior SUE Tech. Performed Subsurface Utility Engineering Quality Level B and Quality Level C field investigations. Utilized correct geophysical equipment to mark underground utilities.

MA-17-02, Roddy Road Widening (LA 935 to LA 621), Ascension Parish Government, Ascension Parish, LA – Sr. Sue Technician/SUE Party Chief. Provided LA One Call scheduling and coordination for the for the Roddy Road Safety Widening from US 621 to LA 935 as part of the Move Ascension Program. Project included geometric improvements to be made at the LA 429 intersection including Left-turn bays on the EB, WB and SB approaches and right-turn bays at the NB and SB approaches; Geometric improvements at LA 935 to include Left-turn bays at the EB, NB and SB approaches, right-turn bays at the NB approach; replacement of the bridges over New River and Bayou Narcisse.

MovEBR Plank – Nicholson, Subsurface Utility Engineering, City/Parish of East Baton Rouge, Baton Rouge, LA – Sr. Sue Technician/SUE Party Chief. TBS is providing services with the 15 designated project sites. The limits of each site is the area encompassing the intersection plus an additional 50 feet in all roadway directions. Kaleb is providing professional SUE services for this project in general accordance with the recommended practices and procedures described in ASCE Publication CI/ASCE 38-02, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.

I-55 Widening Church to Goodman, MDOT, Statewide Mississippi – Sr. Sue Technician/SUE Party Chief. TBS was requested to perform SUE services and Utility Conflict Management. Kaleb provided Quality Levels D-A surveys which will help to determine the actual location of existing utilities. This information will then be used to determine possible utility conflicts with the roadway design.

MSY Bus Route SUE, Civil Design and Construction, New Orleans, LA – Sr. Sue Technician/SUE Field Manager. Provided field survey services for Quality Level B services for a topographic survey at the MSY Airport in New Orleans, LA.

Infinity Engineering Consultants, LLC

2025 Schedule of Rates

	Hourly Rate	Overtime Rate
Principal Officer	\$335.00	\$335.00
Principal Engineer	\$245.00	\$245.00
Senior Engineer	\$220.00	\$220.00
Project Engineer I	\$205.00	\$205.00
Project Engineer II	\$190.00	\$190.00
Project Engineer III	\$150.00	\$150.00
Project Engineer IV	\$135.00	\$135.00
Associate Engineer	\$125.00	\$125.00
Junior Engineer/Intern	\$105.00	\$105.00
Senior Technician	\$120.00	\$120.00
Principal Designer	\$175.00	\$175.00
Senior Designer	\$150.00	\$225.00
Designer	\$130.00	\$195.00
Senior Drafter	\$120.00	\$180.00
Drafter	\$105.00	\$158.00
Senior Construction Manager	\$135.00	\$203.00
Construction Manager	\$105.00	\$158.00
Construction Manager - On-site	\$125.00	\$120.00
Inspector	\$95.00	\$143.00
Field Technician	\$95.00	\$143.00
Senior Project Administrator	\$105.00	\$158.00
Project Administrator	\$85.00	\$128.00
Aerial Drone Equipment	\$150/Hr	
Underwater Drone Equipment	\$150/Hr	
Laser Scanning Equipment	\$900/Half-Day	
Hydro Survey Equipment	\$800/Half-Day	
LIDAR Scanning Equipment	\$1500/Half-Day	
Photocopies	\$0.15 each	
Color Copies	\$1.25 each	
Blue-line Copies	\$2.50 each	
Bond/Translucent Bond Copies	\$4.00 each	
Auto Mileage	Per the latest Federal Rate	
Parcel Postage	cost	
Subcontractors	cost + 15%	

Notes: 1. Hourly rates include computer costs, incidental printing, fax usage, and software usage.

Attachment 1 – Scope of Services

Exhibit A

AECOM Rate Sheet and Schedule

Note: Please include a separate Rate Sheet for each firm on the project team

A. Position Title	B. Hourly Salary Rate	C. Hourly Benefit Rate	D. Hourly Overhead and Profit	E. Fully Loaded Hourly Rate (B + C + D)
Principal	\$128.75	\$51.50	\$163.64	\$343.89
Project Manager	\$123.60	\$49.44	\$157.10	\$330.14
Senior Engineer III	\$113.30	\$45.32	\$144.00	\$302.62
Senior Engineer II	\$103.00	\$41.20	\$130.91	\$275.11
Senior Engineer I	\$88.84	\$35.54	\$112.91	\$237.28
Civil Engineer III	\$80.34	\$32.14	\$102.11	\$214.59
Civil Engineer II	\$65.92	\$26.37	\$83.78	\$176.07

Direct costs shall be reimbursed by the RTA at cost plus an administrative fee of 10 %.

Annual escalation of Fully Loaded Hourly Rates shall be 4 % per year (not to exceed 4%). This escalation percentage applies to both the initial 3-year term of the contract as well as any 1-year additional terms that RTA chooses to exercise.

Attachment 1 – Scope of Services

Exhibit A

AECOM Rate Sheet and Schedule

Note: Please include a separate Rate Sheet for each firm on the project team

A. Position Title	B. Hourly Salary Rate	C. Hourly Benefit Rate	D. Hourly Overhead and Profit	E. Fully Loaded Hourly Rate (B + C + D)
Civil Engineer I	\$53.56	\$21.42	\$68.07	\$143.06
Engineering Intern III	\$45.32	\$18.13	\$57.60	\$121.05
Engineering Intern II	\$41.20	\$16.48	\$52.37	\$110.05
Engineering Intern I	\$37.08	\$14.83	\$47.13	\$99.04
CAD Manager	\$56.65	\$22.66	\$72.00	\$151.31
Senior Designer III	\$53.56	\$21.42	\$68.07	\$143.06
Senior Designer II	\$50.47	\$20.19	\$64.15	\$134.81

Direct costs shall be reimbursed by the RTA at cost plus an administrative fee of 10 %.

Annual escalation of Fully Loaded Hourly Rates shall be 4 % per year (not to exceed 4%). This escalation percentage applies to both the initial 3-year term of the contract as well as any 1-year additional terms that RTA chooses to exercise.

Attachment 1 – Scope of Services

Exhibit A

AECOM Rate Sheet and Schedule

Note: Please include a separate Rate Sheet for each firm on the project team

A. Position Title	B. Hourly Salary Rate	C. Hourly Benefit Rate	D. Hourly Overhead and Profit	E. Fully Loaded Hourly Rate (B + C + D)
Senior Designer I	\$47.38	\$18.95	\$60.22	\$126.55
Clerical	\$36.05	\$14.42	\$45.82	\$96.29
Senior Mechanical Engineer	\$94.76	\$37.90	\$120.44	\$253.10
Mechanical Engineer	\$69.01	\$27.60	\$87.71	\$184.33
Senior Electrical Engineer	\$96.82	\$38.73	\$123.06	\$258.61
Electrical Engineer	\$67.98	\$27.19	\$86.40	\$181.57
Senior Geotechnical Engineer	\$103.00	\$41.20	\$130.91	\$275.11

Direct costs shall be reimbursed by the RTA at cost plus an administrative fee of 10 %.

Annual escalation of Fully Loaded Hourly Rates shall be 4 % per year (not to exceed 4%). This escalation percentage applies to both the initial 3-year term of the contract as well as any 1-year additional terms that RTA chooses to exercise.

GOTECH RATE SHEET AND SCHEDULE

Note: Please include a separate Rate Sheet for each firm on the project team

A. Position Title	B. Hourly Salary Rate	C. Hourly Benefit Rate	D. Hourly Overhead and Profit (on site)	E. Fully Loaded Hourly Rate (B + C + D)
Civil Engineer	\$76.25	N/A	157.98% Overhead 15% Profit	\$226.21
Professional Land Surveyor	\$76.90	N/A	157.98% Overhead 15% Profit	\$228.20
Survey Technician	\$35.00	N/A	157.98% Overhead 15% Profit	\$103.84
CADD Technician	\$27.00	N/A	157.98% Overhead 15% Profit	\$80.10
Survey Crew	\$64.00	N/A	157.98% Overhead 15% Profit	\$189.88

Direct costs shall be reimbursed by the RTA at cost.

Annual escalation of Hourly Salary Rates shall not exceed 4%.

Note that all labor performed off-site (not at contractor's facilities) must be burdened with an off-site overhead rate. The off-site Hourly Overhead and Profit rate is calculated as ___% of _____.

T.Baker Smith Hourly Rates



Lead Professional: \$230.00 / hour

Project Manager: \$170.00 / hour

SUE Field Manager: \$145.00 / hour

Project Technician: \$95.00 / hour

2 – Person Field Crew: \$170.00 / hour

Electronic Metal Detectors: \$175.00 / day

Ground Penetrating Radar: \$550.00 / day

Data Collector / Field Computer System: \$100.00 / day

Vehicle Transportation: \$26.50 / hour

Technology Fee: \$26.50 / hour

Urban Systems Hourly Rates



Billing rates :

Principal - \$250.00

Supervisor Eng. - \$220. 00

Professional Eng. - \$155.00

CAD Designer - \$110.00

Clerical - \$ 65.00

Engineering Intern - \$ 135.00



<u>Role</u>	<u>Hourly Rate</u>
Principal Engineer (P.E.)	\$265
Sr. Project Engineer (P.E.)	\$212
Project Engineer (P.E.)	\$190
Staff Engineer (E.I.T.)	\$110
CADD Drafting	\$75
Engr. Technician	\$100
Word Processing	\$65
Supervisor	\$97