

Universal Testing + Inspection Services, Inc. (UTI) is a nationally accredited professional services firm with comprehensively broad expertise in construction materials testing, special inspections, support engineering and geotechnical/ environmental services and drilling. Since our inception nearly 30 years ago, Universal has firmly established itself as an industry leader and has evolved into one of the largest full-service regional providers of professional, technical services to a broad-base of clients and projects ranging from straightforward fit-outs to multi-billion-dollar complex programs.

After establishing a solid corporate history that spans nearly 30 years, we are no longer just a construction material testing lab that forged our outstanding reputation and trusted name. We have expanded our services and capabilities over the years, building expertise to fit broader markets and industries. Our Team brings a multi-disciplinary proactive approach to the complex challenges of our clients. Our expertise is complemented and supported by one of the largest comprehensive private construction materials testing laboratories in the Northeast and Mid-Atlantic, United States.

Firm Qualifications

Universal is one of only a few New York based firms that are both Nationally Accredited as a Special Inspection Agency through the International Accreditation Service (IAS) and AASHTO Accredited as a Construction Materials Testing Facility. Our IAS Accreditation consists of an unparalleled (53) special inspections categories in all (7) major construction sequences which are: General Building, Fire Code, Plumbing & Mechanical, Structural Materials, Fabricated Materials, Structural and Progress Inspections.

Universal is Nationally Accredited through AASHTO R18 Program- American Association of State Highway and Transportation Officials AAP Program in various material categories such as; soils, portland cement, concrete, aggregates hot mix asphalt and Spray-on Fireproofing. We are also routinely inspected by CCRL- Cement and Concrete Reference Laboratory of National Bureau of Standards and Technology.

AASHTO R18 Nationally Accredited (E-329, C1077 & C1093)
Asphalt | Concrete | Soil | Aggregates | Spray-on Fire Resistive Materials



Cement and Concrete Reference Laboratory (CCRL)
Concrete | Aggregates | CMU



International Accreditation Service (IAS)
Special Inspection Agency (SIA-224NY)



Staff Qualifications

Professional Engineers

Arizona / California / Connecticut / Delaware / Florida / Georgia / Maryland / Massachusetts / Nevada / New Jersey / New York / Ohio / Pennsylvania / Rhode Island

Registered Architects

International Code Council- ICC Special Inspectors

Structural Steel / Fireproofing / Masonry / Mechanical / Concrete / Welding & Bolting / Soil Energy Code/ Master Special Inspectors

LEED® Accredited Professionals

American Concrete Institute (ACI) Field levels I & II

American Concrete Institute (ACI) Lab levels I & II

American Concrete Institute (ACI) Strength Testing Techs

National Institute for Certification of Engineering Technologies (NICET)

American Welding Society- AWS/ CWI

American Society of Nondestructive Testing (ASNT) SNT-TC-1A

Certified EPA Asbestos Inspectors, Investigators and Samplers

Federal Aviation Administration Certified (FAA)

Northeast Transportation Training and Certification Program

Geographical Service Area

Universal is a New York based firm that provides daily service throughout the New York Metropolitan area with large scale project service extended to throughout the United States, Canada and Caribbean Region. We also provide Quality Assurance services which are extended globally.

We have service experience ranging from steel fabrication inspections in Quebec, Canada (to) major airport construction in Trinidad & Tobago, West Indies Caribbean (to) curtain wall steel assembly in China and everywhere in between. Regardless of location, size or complexity, Universal has the versatility, depth and expertise with extensive experience to successfully serve your project on local, national and international levels.

Markets & Industries Served

- Mass Transit | Tunnels | Subways
- Railroad | Light-rail Construction
- Educational Facilities (K-12) | Colleges | Universities
- Highways | Interstates
- Bridges
- Power Plants | Pipeline | Utility | Renewable Energy
- Hospitals | Health Care Facilities
- High-rise | Low-rise Building
- Correctional Facilities
- Airport Terminals | Runways
- Stadiums and Arenas
- Landfill | Recycling Facilities
- Manufacturing | Fabricators
- Harbors | Marine
- Ship and Vessel Building
- Aviation Industry
- Retail & Big Box Chains

Service Overview

At Universal, we take great pride in owning and maintaining one of the most equipped and expansive operations in the New York Tri-State area. At present, no other special inspection, construction materials testing laboratory or engineering/ architectural firm is as well-equipped, experienced and immediately ready to support our client's project needs throughout the entire construction sequence by offering a true full- services platform as we do! Our services include:

- Construction Materials Testing and Evaluations
- Special Inspections
- Progress Inspections
- Energy Code Compliance
- Geotechnical/ Environment Drilling and Test Borings
- Environmental Services
- Pre/ Post Construction Surveys
- Specialty and Nondestructive Testing Services
- Pavement Services
- Vibration Monitoring
- Mobile On-Site CMT Laboratories
- Forensic Evaluations
- Quality Assurance & Quality Control
- Ariel Drone Service

Our Company Brands



UTIS360, LLC serves a broad range of clients with Hi-tech services, consulting and Nondestructive examinations and testing. Our services include: Aerial drone services, thermal imaging, concrete NDT evaluations, welding NDT, vibration monitoring, radiography (X-Ray), ground penetrating radar (GPR), floor flatness & levelness surveys and pavement smoothness profiling with state-of-the-art equipment, reporting and videography production.



Universal Drilling & Boring, Inc provides Engineers, Architects, Developers, and Owners with geotechnical + environmental drilling, core drilling, test borings, geoprobe drilling, well installation and subsurface instrumentation installation, helical piles, micro piles, grouting and excavating. In addition, we provide extensive reporting and support engineering services, including: phase I & II services, dewatering design, environmental planning, foundation and pavement recommendations and more.



Universal Testing + Inspection Services, Inc is an industry leader and one of the largest regional providers of: construction materials testing, special progress inspection, support engineering, QC services, NDE&T and drilling.

Key Personnel

Universal's management and team leaders bring over 200 years of collective experience in the engineering, construction materials testing, special inspections, geotechnical/ environmental services and drilling to each project.

Larry A. Mercardante
President/CEO

Larry J. Mercardante
Founder & (President Emeritus)

Operations

Fabio Scaldaferrì
Vice President of Operation

Kathleen M. Hand, PE, ACI
Sr. Technical Director/ E.I.C

Special Inspections

Sunanda Pathirana PE, MSI, CWI
Lead Engineer/ Director of Vibration Monitoring

Nelson Lopez, PE, MSI, CWI
Manager of Special Inspections

Boris Bluvshhteyn, MSI, CWI, ACI
Lead Special Inspector

Rabin Pandey, MSI, CWI, ACI
Lead Special Inspector

Architectural Team

Thomas Kispert, RA, NCARB, ACI
Technical Director – Architecture

Ashish Patel, RA, CWI, ICC, ACI
Sr. Architect- Special Inspections

MEP Group

Bill Zeman, PE, LEED AP
Technical Director – M.E.P Group

Krish Prasad, PE, ECM
Sr. Engineer of M.E.P Group

CMT Group

Dan Karayeanes, ACI, ICC, NETTCP
Service Manager

Drilling Division

Robert Morley
Drilling Superintendent

Administration

Lori Mercardante-Egan
Accounts Manager- A/P/R

Louise Kuefner
Sr. Administrator

Franchising

In today's construction and engineering space the term 'large firm' has taken on a whole new meaning. Mergers and Acquisitions have become the standard for growth- which has led to juggernaut firms dominating key market sectors. While M&A is a good way to expand geographical in a shorter period time, it may not always be the best way for sustainable growth and quality of local service delivery in our space of construction materials testing, inspection and drilling – that's where we come in. We have 'boxed-up' our processes, programs, business elements and mindset to developed business expansion through -organic individual owner/ operators- or as a 'bolt-on' platform for existing firms.

Individual Business Unit Owner/ Operator

Thinking of breaking out and starting your own firm? Have the experience, contacts and potential client base but not sure of the risks involved? Have ideas and plans but don't know where to start? Overwhelmed? When you own and operate your Universal location, we pilot the process with you- from business consulting and strategizing (to) QMS development/ implementation (to) report drafting (to) lab and office design- we cover all aspects. Whether you need full support or simple desktop collaborating- we got this, together! Let's start a conversation, contact us today for more information at: franchise@universaltest.com. Below are a few key initial prerequisites to consider before requesting an owner/operator application, background check and questionnaire:

- Must be a Licensed Professional Engineer w/ more than 7 years of experience (in your operating State)
- Must have overall 15 years' experience in: materials testing, inspection or applicable fields of engineering
- Must have 5 years of experience in a management position managing people
- Must have a credit score of 730+
- Must have min. of \$200,000 liquid

Owner/Operator Benefits

- Minimizing risk
- Brand awareness, proposal prep, marketing and resources
- Larger corporate umbrella
- Turn-key startup with backend support
- Access to Equipment and consumables
- Access to training, development, consulting and coaching
- IAS, A2LA, AASHTO and CCRL Accreditation support
- Much More.

Corporate Bolt-on

Exactly what it means- we take our outstanding operation and bolt-on to yours. Whether your firm is a large multinational firm looking to diversify and expand its service platform to its clients (or) a smaller firm that offers similar services and is simply looking to expand on its platform while gaining a competitive edge with individualized

support - Universal is the right fit! Let's start the conversation, contact us today for more information at: bolton@universaltest.com

CONSTRUCTION MATERIALS TESTING

Concrete + Masonry

- Development of QC Programs & Specifications
- Third-Party Peer Review and Oversight
- Comprehensive Field Inspections
- Placement Inspection
- Compressive Strength Testing
- Comprehensive Masonry Inspections
- Core Drilling
- Rebar Scanning- GPR method
- Crack Monitoring
- Floor Flatness & Levelness Survey
- Accelerated Aging & Maturity Monitoring
- Windsor Probes & Pin
- Slab Moisture Testing
- Rapid Freeze Thaw
- Petrographic Analysis Management
- Rapid Chloride Permeability (Coulomb Testing)

Soil + Aggregates

- Subsurface Drilling
- Environmental Drilling & Well Installation
- Geoprobe® Drilling & Sampling
- Compaction Density Testing
- Backfill Supervision
- Field Sampling & Source Verification
- Truck Delivery Inspections (import/ export)
- Gradations, Grain Size & Sieve Analysis
- Environmental Field Screening
- Classification & Visual Identification
- Moisture Density Relationships (proctor)
- Grade Inspection & Sub-Base Measurements
- Dynamic Cone Penetrometer (DCP)
- Bearing California Bearing Ratio (CBR)
- Hydrometer Testing
- Direct Shear Testing
- Permeability and Percolation Testing

Asphalt + Pavements

- Development of QC Plans
- Mix-Design & Implementation Oversight
- Pavement Thickness Measurements
- Core Drilling
- Plant Inspection
- AC Burn-Offs & Gradations
- SUPERPAVE Density Testing & Management
- Pavement Profiling and Smoothness
- Roadway Condition Survey
- Pavement Life Cycle Analysis
- Pavement Design
- Benkelman Beam Deflection Survey

Material Supplier Services

- Material and Source Supplier Inspection
- Concrete Plant Inspection
- Asphalt Plant Inspection
- Steel Fabrication Inspections (Internationally)
- Precast Concrete Plant Inspection
- Quarry Sourcing Inspection/ Testing

Spray-Applied Fireproofing

- Thickness Testing & Verification
- Pre Apply Inspection
- Pull-Test | High Density Pull-Test
- Adhesion & Cohesion Testing | Density Testing

Coatings

- Mill Thickness Analysis
- Application Inspection
- Source Verification
- Pre/ Post Inspection & Testing

Structural Steel | Welding | Bolting & Piping

- Welder Qualifications
- Development of Written Procedures
- Calibration of Impact Guns / Torque Wrenches
- High Strength Bolt Testing
- Ultrasonic Testing of Welds
- Thickness Measurements- UT Method
- Visual Welding Inspection
- Skidmore Wilhelm Testing and Machine Rental
- Coupon Testing
- Pipe Inspection
- Deck Inspection
- Corrosion Testing
- Hardness Testing | Tensile & Bend Strength Testing
- Dye Penetrate
- Steel Wall Thickness Measurements
- Bolted Connection Inspection
- Nondestructive Testing UT | MT | PT | RT

Nondestructive Examination + Specialty Services

- Digital Radiographic Testing
- Ground Penetrating Radar
- Concrete Slab Floor Flatness and Levelness
- Pavement Smoothness Profiling
- Concrete Maturity Monitoring
- Pull-Testing (Anchors, Bolts, Rebar, Fasteners, Tile)
- Infrared Surveys
- Vibration Monitoring
- Caisson, Pile & Rock Socket Video Recording

Related Services

- Special Inspections
- Energy Code Compliance
- Drilling and Test Boring Services
- QA/QC Program Management

SPECIAL INSPECTIONS

Universal has been providing special inspections and construction materials testing since our inception more than 25 years ago and our trusted name and outstanding track record has allowed us to evolve into one of the largest providers of these services in the New York Metropolitan Tri-State area. Unlike engineering, architectural and other inspection type firms transforming themselves into a special inspection company or 'brokering' the services due to code changes - thus having a potential of costly learning curves to the client as well as potential delays to the their projects; Universal's 'in-house' full-service capabilities encompasses all required special and progress inspections as well as all required support testing of construction materials. We are one of only a few firms fully accredited in all (7) Construction Sequences and (56) scopes of Special Inspections- including; Energy Code Compliance and Public Assembly Lighting Inspections.

In addition to our National Accreditations, locally Universal is a New York City Department of Buildings (NYCDOB) Approved Class 1 Special Inspection Agency (SIA). We are also (NYCDOB) a licensed Concrete Testing Laboratory (since 1994) and an Approved Structural Steel and Welding Inspection Agency. Our vast Accreditations and Licenses minimizes the number of consultants retained on a project and in-turn saves our clients time and money while delivering our 'ultra'-efficiency, effectiveness and quality that is second to none! Our full service platform consists of:

General Building Construction

- Wall Panels, Curtain Walls and Veneers
- Exterior Insulation Finish Systems (EIFS)
- Chimneys
- Flood Zone Compliance
- Luminous Egress Path Markings

Fire Protection Systems & Fire- Resistant Construction

- Sprayed Fire-Resistant Materials
- Mastic and Intumescent Fire-resistant Coatings
- Smoke Control Systems
- Sprinkler Systems
- Standpipe Systems
- Fire-resistant Penetrations and Joints
- Emergency and Standby Power Systems (Generators)
- Fire Alarm

Plumbing & Mechanical Systems

- Mechanical Systems
- Fuel-oil Storage and Fuel-Oil Piping Systems
- Heating Systems
- Soil Percolation Test - Private On-Site Storm Water Drainage Disposal Systems and Detention Facilities
- Private On-Site Storm Water Drainage Disposal Systems and Detention Facilities

Progress Inspections

- Footing and Foundation
- Lowest Floor Elevation
- Fire-Resistance Rated Construction
- Energy Code Compliance Inspections
- Public Assembly Emergency Lighting

Structural Materials & Construction Operations

- Structural Steel Welding (Shop
- Liquid Dye Penetrant Inspection and Field)
- Non-Destructive Testing
- Ultrasonic Inspection
- Magnetic Particle Inspection
- Radiographic Inspection
- Structural Steel –Details
- Structural Steel High-Strength Bolting
- Structural Cold-formed Steel
- High Temperature Hot water Piping- Welding
- High-pressure Steam Piping -Welding
- High Pressure Fuel Gas Piping- Welding
- Aluminum Welding
- Concrete Cast-in-place
- Concrete Precast
- Prestressed Concrete
- Masonry
- Subgrade Inspection
- Subsurface Conditions – Fill Placement & In- Place Density
- Subsurface Investigations (Borings/Test Pits)
- Deep Foundation Elements
- Helical Piles
- Vertical Masonry Foundation Elements
- Structural Stability- Existing Buildings
- Excavations ,Sheeting, Shoring and Bracing
- Underpinning
- Mechanical Demolition
- Seismic Isolation Systems
- Post Installed Anchors (Pull-Testing)
- Alternative Materials

Total Management & Support Services

- NCR Logging, Tracking, Consulting, Mitigating and Close-outs
- RFI Submittals, Management and Distribution
- Contractor(s) Submittal Follow-ups and Review
- Project Meetings for Updating, Projections, Report Review and Ensure ‘SI Services’ are on Track
- Fast Report Distribution, Review, Interpretation
- Comprehensive Inspection Reports with Daily Overview and Support Photos Documentation
- Construction Materials Testing- Laboratory and Field*
- Full Scope of all NYCDOB (TR Forms)
- NYCDOB / DOT BBP Form– 11 Sidewalk Affidavit Services
- Directive 14 Self Certification

GEOTECHNICAL & ENVIRONMENTAL DRILLING

Universal's Drilling Division offers complete professional Geotechnical and Environmental drilling, engineering support and laboratory testing which are vital services to the design and construction of a project. Subsurface soil, rock and ground water conditions identified, detected and classified- play as an important role in a project as the architectural, civil and structural design that's above ground. This is especially true when construction is being considered on a property which may also be potentially contaminated. Properly performed geotechnical and environmental drilling services can result in improved foundation design, reduced construction costs and ensure real estate transactions are sound. Universal provides our clients with accurate and representative information concerning subsurface conditions.

Universal's Drilling Division maintains its own drilling fleet and support equipment, consisting of:

- (1) Acker Soil Sentry Truck Mounted
- (2) CME 45C Truck Mounted w/ Automatic SPT Hammers
- (2) CME 55 Truck Mounted
- (1) Mobile B57 Rubber Tire ATV
- (1) BR 3000 Track Rig (limited access)
- (1) Geoprobe® 7822DT Track w/ Automatic SPT Hammer
- (1) Geoprobe® 6600 Truck
- (2) Acker Portable Tripods (gas/ electric)
- (11) Core Drilling Machines
- (2) Box Trucks/ Mobile Laboratories w/ On Board Generators
- (1) Skid Steer Loader
- (1) Backhoe Excavator
- (1) Underground video camera system (capable of depths -600)

Subsurface explorations are conducted for commercial projects (high-rise, low-rise and warehouses), industrial and manufacturing plants, schools and universities, residential developments, roadways, railways, airports, tunnels and bridge projects. Universal's Drilling and Engineering Divisions provide services to Design Engineers and Architects (E/AoR), Government Agencies, Public and Private Owners, Developers and Contractors.

Engineering Support Services

- Subsurface Investigation Geotechnical Reporting
- Phase I & II Environmental Assessments
- Foundation Recommendations
- Development of Environmental Sampling Plans
- Development of Construction Documents
- Development of Remediation Plans
- Boring Logs, Field Reports and Photo Logs
- Geotechnical Laboratory Testing
- Existing Footing and Foundation Investigation

Geotechnical & Environmental Drilling

- Subsurface Exploratory Investigations
- Geotechnical / Environmental Drilling
- Foundation Test Borings
- Helical Pile Drilling and Installation
- Environmental Impact Condition and Plum Delineation
- Geoprobe® Drilling Services
- Rock Coring
- Monitoring well Installations
- Instrumentation Installation
- Water Sampling & Testing
- Drum & Container Management
- Ground Treatment Injections
- Test Pitting & Excavating Service
- Underground Video Logging
- Grouting
- Percolation and Infiltration Testing
- Contaminated Soil Removal

Core Drilling

- Pavement, Slabs and Walls
- Sidewalk Coring
- Asphalt Pavement
- Runway Pavement Cores
- Block and Masonry Wall
- Bridge Decks and Tunnel Walls

SPECIALTY + NDT SERVICES

At Universal, we specialize in unique specialty testing, inspection and verification services. Universal owns and operates a wide- array of testing, surveying, NDT tools, vehicles and special instrumentation equipment to perform specialty type services. These services are provided by trained and certified professionals with project experience second to none. Our services consist of:

- Dye Penetrant / Magnetic Particle /Ultrasonic Testing
- Phased Array Ultrasonic
- Radiographic Testing of Welds
- Ground Penetrating Radar
- In-Place Concrete Soundness
- Floor Flatness and Levelness
- Pavement Smoothness and Ride Ability Profiling
- In-Place Concrete Maturity Monitoring
- Seismic and Vibration Monitoring
- Pre/ Post Construction Evaluations Video Documenting
- Concrete Maturity Monitoring
- Pull-Testing (Anchors, Rebar, Bolts, Fasteners and Tile)
- Rebar Locating
- Underground Video Recording
- Caisson/ Rock socket Video Recording
- Steel Wall Thickness Evaluation
- Ground Penetrating Radar – GPR Concrete Scanning
- Tile Bond Strength Testing
- Windsor Probes / Windsor Pin
- Skidmore Testing

ENVIRONMENTAL SERVICES

Universal provides a full-range of environmental drilling, sampling, management, project oversight, field/ lab testing and inspections. These services are performed by Professional Engineers, Environmental Engineers, Technicians and Drillers. From daily air monitoring utilizing PID Meters to remediation services- Universal has you covered! Our services consist of

- Phase I and II Environmental Assessments
- Program Management
- Development of Sampling and Handling Plans
- Development of Contractors Handling Plan
- Development of Remediation Plans
- End Point Sampling
- Geoprobe® Drilling
 - Macro Core Sampling
 - Discrete Sampling, Continuous Sampling
 - Gas, Water & Vapor Extractions
- Groundwater Monitoring Wells
- In-Field Testing & Scanning
- Drum Management
- Sample Management & Lab Delivery
- Gas, Water & Vapor Extractions
- Plume Delineation & Pin-Pointing
- Ground Treatments & Grouting
- Water Sampling
- PID Scanning & Reporting

PAVEMENT SERVICES

Universal offers complete pavement management and consulting as well as perform a variety of engineering support functions including pavement evaluation and design, geophysical surveys, subsurface utility mapping, inspection and testing.

We have extensive experience in pavement analysis and design as well as materials testing, inspection and the selection of appropriate pavement types and treatments for different pavement structures under various conditions. We provide an integrated team of professionals with deep expertise in all aspects of pavement management who partner with our clients to provide solutions to their specific needs. We have provided infrastructure services throughout the United States and the Caribbean Island Region. Our services consist of:

- Pavement Condition Reports
- Pavement Evaluation Reports
- Pavement Smoothness and Ride- Ability Survey
- Pavement Management Systems
- Elusion Mixed-In-Place
- Recycling Pavement Materials
- Pavement Materials Engineering
- Comprehensive Mix-Designs
- Onsite Laboratories (FAA / FHWA)
- Superpave Laydown Inspection
- Density & Compaction Management
- Inspection and Testing Services
- Core Drilling
- Pavement Thickness & Composition Determination
- Benkelman Beam Deflection Survey

AERIAL DRONE SERVICE

Forged by experience, fueled by expertise and driven by passion
UNIVERSAL TESTING + INSPECTION - the leader in inspection, testing,
QA and drilling—expands its services to new heights...

We, at Universal, realized the limitless potential in deploying drones to provide our clients a whole new way to solve their business, technical and engineering challenges. This knowledge and the valuable industry insights we acquired through over 25 years as leaders in construction & engineering, are the driving forces that propelled us to establish the new division, **UTIS360** drone service platform. Being true to our heritage of offering the best-in-class solutions to our clients, we put in service the DJI-MATRICE 200 series and DJI-Inspire II advance drones with state-of-the-art Zenmuse X4S Cameras and FLIR Thermal XT imaging platform to further enhance our capabilities.

SERVICES

- Inspection
- Photo and Video Production
- Data Collection and Reporting
- Thermal Imagining
- Security

MARKETS

- Construction Sites, Buildings and Land Development
- Building Façade and Thermal Imagining (Local Law 11/98)
- Commercial and Residential Real Estate
- Restricted Access Locations
- Disaster Response
- Emergency Response, Search and Rescue
- Security and Recon
- Energy: Solar Panels, Windmills and Power Plants
- News and Media Support, Entertainment
- Sporting Events and Private Parties
- Business Showcase
- Flybys
- Law enforcement and Military Assistance