

I-11 BOULDER CITY BYPASS DESIGN BUILD PROJECT BOULDER CITY, NV



# Transportation | Highways, Roads, and Bridges

Transportation and infrastructure clients are constantly challenged to upgrade deteriorating structures, improve performance, and ensure safety for travelers utilizing highway, road, and bridge systems nationwide.

#### **National Experience**

With more than 50 years serving our clients, Terracon's environmental, geotechnical, and materials capabilities enable us to provide you with efficient, innovative solutions to your most challenging infrastructure projects. Our staff brings national expertise and depth of knowledge critical to the success of large-scale transportation projects. With more than 175 offices, we can mobilize quickly along major transportation corridors.

#### **Alternative Delivery**

Terracon's extensive alternative delivery experience lets us know how to provide technical value to accelerate schedules and reduce costs.

#### Three-Dimensional (3D) Subsurface

*Condition Modeling.* Combining our \$1 billion of subsurface characterization data with publicly available data, we can develop subsurface 3D modeling to provide a high degree of confidence in pre-award design and seamlessly integrate models into MicroStation and other standard design systems. This unique approach provides:

- Low-cost preliminary evaluations
- Confident predictions
- Constructability evaluations

- Smart work plan development
- Efficient decision making
- More economical foundations

#### Risk Identification and Probable

*Impact Analysis.* The subsurface presents a high liability and can critically impact the outcome of any highway, road, or bridge project. Terracon's ability to mitigate and identify probable impacts of potential risks is crucial. Providing this service early in the process, we help the contractor and designer prioritize risk and successfully manage projects, avoiding schedule delays and increased costs.

#### Construction Quality Assurance/ Construction Quality Control (QA/QC).

Terracon has provided QA/QC for multiple project types nationwide, from designbuild to public-private-partnership (P3) to design-bid-build. Terracon is flexible, practical, and responsive, bringing a high level of quality to your construction project. Our proactive daily site communication and dedicated scheduling and dispatch team ensures Terracon staff are in the right place at the right time.

Equally important is the distribution of testing information. Terracon's proprietary software, iTRAMS, reduces paper consumption, expedites workflow, and distributes and displays test results so discrepancies and non-conformances can be resolved quickly and easily, avoiding costly mistakes down the road. Instrumentation. Terracon can design, install, and manage state-of-the-art instrumentation programs. We use a variety of sensors and real-time web hosting of collected data for infrastructure projects; track implementation of remote, automated, web-based, realtime monitoring solutions to help clients manage risk; and deliver timely warning notifications and reports.

#### **Innovative, Cost-Effective Solutions**

*Lifecycle Costs.* Terracon's pavement specialists have expertise in all phases of design, construction, and maintenance. We utilize advanced pavement modeling to develop lifecycle costs for optimized pavement design. We build sections from the ground up and analyze diverse material types, rehabilitation strategies, and technologies to reduce cost and construction time.

#### Predictive Performance Modeling.

For longer-term projects, predictive modeling information helps you analyze conditions, understand pavement distress, determine maintenance and rehabilitation requirements, and ultimately enjoy a better project outcome.



Nationwide Terracon.com



### Why Terracon?

**Resourceful.** Applying new processes, methodologies, and techniques allows us to take a proactive approach to solving transportation project challenges.

**Responsive.** We build and maintain strong, open relationships with clients, giving us the ability to look at a project and anticipate our clients' needs or challenges.

**Reliable.** We recognize highway, road, and bridge projects are large, fast-paced, and complex. With our vast experience working in local conditions, you can depend on Terracon to deliver practical solutions and timely results.

"Terracon's lead geotechnical engineer on the I-690 project in Syracuse, NY (two bridges and elevated highway, including 1,500 lineal feet of ground improvement), and his team have performed exceptionally well through the proposal and design phases, and now into the construction phase. Terracon also completed the independent technical review of Menard's soil strengthening (CMC) design."

 DENNIS KENNELLY, VICE PRESIDENT/SENIOR PROJECT MANAGER, TY LIN INTERNATIONAL, ROCHESTER, NY



ENR Rankings 2023

- 2022 Ranking\*
- Asbestos and Lead Abatement\*
- Top 100 Pure Designers
- Top 500 Design Firms
- Top 150 Global Design Firms\*
  - Top 200 Environmental Firms\*

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