Connect Your Roads and Highways
Make Better Decisions with Cutting-Edge Location Technology
The Power of Knowing Where

Tap into the power of information integration. With Esri® technology, you can pull data out of its silos. You can use the common language of location to layer data onto maps to identify rich spatial relationships. Geographic information system (GIS) technology lets you gain powerful insight from your existing information sources. In turn, you can document and derive information from your data that leads to better decision-making.

GIS helps improve your results. You can repeatedly identify your smartest capital investments and maintenance priorities; streamline inspections of pavements, bridges, and other assets; and automate regulatory reporting for faster compliance. Esri’s powerful platform gives you the tools to enhance all workflows, from planning and design to operations and maintenance. It starts with knowing where your resources are and what you can do with them. Let Esri’s location technology show you how.
Create Better Plans

With rich location analytics, you can carefully weigh opportunities for expansion or improvement. Mapping applications and modeling let you forecast where your future needs will be. You can identify strategic capital investment needs today for a well-thought-out highway system tomorrow.

This works by integrating data and helping you identify trade-offs and prioritize needs. Where can you improve safety? Where can you build or maintain assets for your most sustainable transportation network? Let proven modeling tools help you prioritize projects so that you get the most out of your resources.

With GIS, you can gain insight from your many information systems, so you can prioritize the right balance of expansion, maintenance, and safety improvements. Location technology informs planning decisions related to the following:

- New infrastructure
- Maintenance
- Safety improvements
More Sustainable Infrastructure

Know beyond a doubt that you have identified critical environmental constraints. As you maintain and expand your most important projects, protect one of the most important resources: the environment. With GIS, you can predict the environmental impact of proposed projects. You can do this comprehensively, so you know you have weighed all environmental considerations. Maps and a layer-based analytical approach let you identify your most sound corridors. You can easily avoid environmental conflicts, such as protected archaeological sites and wetlands, while determining your most cost-effective route. You can even produce reports based on your work so that you easily document your compliance for regulators.

That’s how easy environmentally sound expansion can be. Put your roads and highways on a map that you can be proud of.

Better Construction Management

Managing construction projects doesn’t have to be a guessing game. With integrated data and real-time tools, you can identify key project indicators at any stage. Visually stunning dashboards with maps and charting options let you understand project status—including budget and timeline. So when a project needs attention, you can get it back on track. With Esri’s real-time monitoring tools, there are no surprises in your margin.

Connect the field to the office for even greater insight into performance. Field apps let your workers log milestones on a daily basis. These applications update your office in real time, so your dashboards always have the latest information. Deliver a wealth of knowledge to your decision-makers to monitor your project performance.
Get your drivers where they need to go, when they need to be there. Real-time monitoring tools let you quickly identify congestion and take action. Respond to incidents and events through multiagency collaboration, and return traffic to normal as soon as possible. Share these unfolding situations with the public via continuously updated web maps. Drivers make smarter travel choices when they understand current road conditions.

Maps help you make smarter decisions too. Within your organization, use web applications to simplify information sharing. Moreover, the same applications can be used to collaborate with allied agencies so that everyone is on the same page. With Esri technology, your teams get greater access to information and stronger awareness of current conditions. Use maps for the following:

- Real-time traffic visualization
- Situational awareness/Incident management
- Empowering public drivers' decisions
- Interagency collaboration

Optimize Operations
Safer roads benefit everyone. With GIS, you can capture and analyze accurate crash data. Historic records help you understand where accidents have occurred in the past and what measures you can take to prevent them in the future. Deploy mobile solutions to your crash crews to capture accurate data on the spot. Incorporate accurate crash locations into your electronic crash-report forms to make it easy to pull this information into your databases for regulatory reporting and analysis. This helps to drive the most effective safety strategy.

Your location platform helps you identify where safety improvements, like rumble strip installations and pavement condition improvements, will have their greatest effect—and save the most lives. You can even release tailored safety information to the public so that drivers can easily understand where to take extra precautions—and where you have taken precautions for them.

Drive Safer Roads
Get More Life out of Your Assets

Reduce your costs by leveraging the full value of your assets. Let Esri technology make asset-management prioritization easy. GIS lets you capture a complete inventory of your assets—so you know what you have and where. In the field, GIS lets you conduct inspections and keep your information sources continuously up to date. Or use the latest automated condition assessment technologies, which integrate with Esri technology. Then run powerful, proven models to determine where your top-priority maintenance activities lie. Good roads do cost less. When you take care of your assets, they take care of you.

Ignite Your Journey with Esri

ArcGIS®, Esri’s location platform, leads the market among roads and highways agencies. Visit us online to learn more about starting or getting the most out of your journey with Esri technology.

Visit esri.com/highways.
Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth’s most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.