Late locates. The clock starts when the ticket arrives. The problem starts long before that.

By the National Utility Locating Contractors Association (NULCA)

According to the 2024 Common Ground Alliance (CGA) DIRT Report, nearly four out often excavation projects in the United States cannot begin on time because of incomplete or delayed locate responses.

The data is clear. Locates are late. The question is why. What the industry has been unwilling to address, until now, is the reason. That is a conversation industry insiders have been avoiding. And it starts with being honest about what actually breaks on-time performance, because it is not what most people think it is.

In our first article, we said the quiet part out loud. The 811 system is not broken. It is working exactly as designed. And under today's conditions, that design produces failure.

This article is about what is actually driving those outcomes. Every part of this system contributes. This article addresses where those contributions show up in on-time performance

When a locate request arrives in a locating queue, the clock starts. A locate request is a legal notification to a utility owner/locating company that excavation is planned in a specific area. The locating companies deploy technicians (often called locators) to perform this work in the field.

In most states, the utility owner/locating company are legally required to mark the location of the underground utilities within two business days. Miss that window and the company faces significant financial penalties.

That sounds manageable. In practice, it is not.

The problem is not just the number of tickets that enter the system. It is what is inside them, and the absence of any control over either.

A locate request can cover a single address, like a homeowner installing a mailbox post, or it can cover hundreds of miles of highway corridor. These requests, commonly referred to as 'tickets', define where and how much locating work must be performed. Both arrive the same way: as a line item in a queue. A locating technician cannot know whether a ticket will take 20 minutes or two days until they are standing in the field.

That lack of visibility is where performance breaks down.

Ticket scope complexity and raw volume are what drive the failure. In documented datasets covering six months of ticket activity across two states, the numbers are stark. In one state, the maximum square footage on a single ticket was nearly 200 football fields (or 9.6 million sq. feet). The median ticket from that same excavator covered roughly three football fields, manageable within a two-day window. But the largest single ticket in the same dataset, submitted by a different excavator, covered more than 8,000 football fields (or 384 million sq. feet). One ticket. Two business days.

That is not a ticket. That is a project.

A separate dataset from a second state showed yet another excavator whose maximum single ticket exceeded 1,800 football fields (or 86.4 million square feet) confirming what locating professionals have known for years: this is not an outlier. It is a daily reality.

There is very little volume awareness in this industry. Tickets flow in at almost any scope, with no ceiling, no forecasting requirement, and no shared accountability for what gets submitted or when. At the volume of tens

of millions of tickets annually, even small inefficiencies in scope definition compound into millions of hours of unnecessary work.

There is currently no reliable mechanism to forecast demand before it arrives.

Large-scale work enters the system the same way as a single-address ticket, with no advance visibility for the locating companies that are expected to absorb it.

Statutory timeframe pressure compounds the problem. A technician who arrives expecting a standard residential mark-out and discovers a multi-block commercial corridor has the same two business days as every other ticket. The law does not account for scope. The clock does not adjust. The queue does not pause.

The result is predictable: technicians triage. They prioritize what they can finish. The rest goes late. And then the industry holds a conference to discuss why on-time performance is not improving.

Hiring and training a locating technician to full competence typically takes six to nine months minimum. When volume spikes without warning, there is no short-term workforce solution. Volume awareness and advance notice are not separate problems from workforce readiness. They are the same problem.

Excavators: The System Is Working Against Both of Us

To the excavation community: this is not about blame. It is about alignment.

Most excavators are doing exactly what the system incentivizes them to do. Submitting tickets is free. There is no limit on scope. There is no consequence for calling in three weeks of work on a Monday morning when only the first three days are ready for excavation. The system was built without guardrails, and the resulting behavior is predictable. That behavior does not stop at how tickets are submitted. It continues in how they are managed once they enter the system.

Ticket renewals and emergency designations introduce another layer of volume the system does not account for.

Ticket renewals can be submitted with minimal friction, often without active excavation underway. Each renewal still requires a response, creating additional workload without corresponding progress in the field.

Emergency tickets compound the problem. Legitimate emergencies require immediate response and should. But in practice, emergency designations are often applied to work that does not meet that threshold. These

"lack of planning" emergencies force technicians to break from planned routes, abandon scheduled work, and reprioritize in real time. The result is not just additional volume, but disruption to the work already in progress, slowing overall throughput and contributing directly to late locates.

The downstream impact of that behavior shows up immediately in the field. When oversized tickets consume locating capacity, they do not just impact locators. They delay other excavators whose work is actually ready to begin.

Excavators are responding to the incentives the system puts in front of them. That does not make the outcome acceptable. It makes it fixable. This is a system where one party's behavior affects every other party's outcomes, which is exactly why alignment matters more than blame.

In collaboration with an 811 center working to improve ticket quality, including exploring the use of AI to identify problematic requests, examples like the one below have been flagged as representative of a broader pattern.

Here is a real example, anonymized but quite common. A ticket was submitted with the following locate instructions:

> *"Locate all main and service lines on entire property whether in conflict or not, plus 25 feet on either side of property. Locate to include right-of-way, both sides of the road."*

The "scope of work" field was left blank. The actual excavation was straightforward: installing water and sewer service, a standard 12 to 24 inch trench from the structure to the curb.

Done correctly, that locate takes about 20 minutes. Because of the broad instructions, it took 40. That same generic instruction set appeared on 30 tickets from the same excavator, resulting in 600 extra minutes, or 10 hours, spent locating areas where no excavation was planned.

Those are hours that could have gone to tickets sitting in someone else's queue, going late while this work consumed the day.

Apply that math at scale. The 811 system processed 43.5 million tickets and 265 million locates in 2024. Even a 10 to 20 percent reduction in excess locate work would free up substantial technician capacity for work that

is currently going late.

The ask is straightforward: call in the work you are actually doing this week. When you are three to five days out from the next phase, call that in then. White-line (marking the exact excavation area in advance) or otherwise clearly define the actual excavation area, rather than requesting a corridor that covers both sides of the road when work is only happening on one side.

When excavators define their work area accurately, locator time on-site drops. That directly reduces the backlog causing the late locates excavators are frustrated by in the first place.

Better-scoped tickets produce faster locates. Faster locates mean you get to work sooner. This is not a concession. It is an alignment of incentives.

Facility Owners: Three Things Need to Change

Facility owners (utility companies responsible for underground infrastructure) fund the 811 system, write the contracts, and own the maps. In most states, facility owners set the rules around ticket scope and volume. Three structural changes would meaningfully improve on-time performance.

Close the gap between what your contracts require and what you actually enforce.

Locating contracts routinely contain performance standards that facility owners do not enforce. Contractors have learned to price accordingly, discounting requirements they know will not be followed and accepting work they know cannot be executed at the quality level the contract describes.

If a standard matters, enforce it and pay for it. If it does not, remove it.

The gap between what contracts require and what facility owners actually hold contractors to is one of the primary drivers of the race to the bottom this industry keeps documenting.

Everyone loses in that race. Including facility owners.

Give your locate partners meaningful advance notice on large projects

A recent example shows what happens when you do not.

In a rural area of Washington state, a small utility provider was the subject of a 150-mile fiber build funded by federal broadband dollars. The project involved multiple subcontractors placing tens of thousands of feet of infrastructure per month across a multi-month window. The territory had historically supported one locating technician.

That was adequate until it wasn't.

The locating company and other cross utility operators found out the project had started when tickets began going late and complaints arrived. Not days before. Not weeks before. Two days after work began.

By the time a new technician could be hired and trained to full competence, the project would be over. The only viable path forward was to travel technicians in from other markets, put them up in hotels, pay overtime and per diem, all of it absorbed against a contract priced for one person in a low-volume territory.

That is not a staffing failure. It is what happens when a system has no mechanism for demand forecasting.

The rural example is not the exception. In a suburban market, a utility contractor notified a locate company eleven days before starting a fiber build project. The project began at 8,000 feet per day across four fiber installation crews and quickly ramped to 15,000 feet per day. In that area, a locating technician can cover approximately 3,000 feet per day. To keep pace, the locate company had to dedicate five locators exclusively to that single project.

They could not staff up fast enough. Four regulatory violations landed before the locate company could get ahead of the volume. Once fully staffed, they managed, but at significant cost, and with five technicians pulled entirely from the rest of their territory.

Every other excavator in that area absorbed the consequences.

That is not an edge case. It is a staffing math problem that repeats every time a large project enters the system without adequate notice.

In another recent example, a utility informed a locate company that it planned to place three million feet of facilities in the ground over 90 days, with approximately 22 subcontractors on-site competing against each other for more work. Tickets had already begun arriving before the locate company received any notification. The project plan required a full-time project manager and eight dedicated technicians working simultaneously. The financial exposure from regulatory fines in that market had already reached hundreds of thousands of dollars for the year and was escalating.

The locate company absorbed all of it. The utility faced no corresponding consequence.

Federal broadband funding announcements are public record, and the industry tracks them. However, knowing that a Broadband Equity, Access, and Deployment (BEAD) grant has been awarded does not tell a locating company when a project will break ground, which subcontractors have been awarded the work, what permitting approvals are pending, or which section of the state will see work first. A grant announced two years ago could mobilize next month or in 2029.

That uncertainty is precisely why advance communication from facility owners and project developers is not optional. Meaningful advance notice, ideally six to nine months for projects of significant scale, is the difference between a staffing plan and a crisis.

Hiring a technician must happen before training can begin, and training to full competence takes four to six months on its own. The math requires notice well ahead of mobilization, not days or weeks after work has already started.

Make maps accessible and consistent.

A locating technician can only mark what they can accurately identify. When facility records are wrong, or when access to those records is cumbersome, inconsistent, or buried behind protocols that vary by operator, even the most skilled technician cannot reliably close that gap.

Facility owners across the industry maintain records in different formats and require different access protocols. All of this consumes field time that should be spent on the locate itself.

Every day a technician goes into the field navigating inconsistent or inaccurate maps, the operator is setting them up to fail, and setting up whoever is digging to get hurt. The technology to improve this exists. The will to prioritize standardized access and fund records accuracy has too often been the missing variable. It can’t be done without you. We ask for your guidance and commitment to fund records accuracy initiatives and prioritize simplified and standardized in-field access.

Regulators and Legislators: The Framework Is Broken at Scale

The rules governing this system were written for a different industry. The volume is different. The stakes are different. The parties being regulated look nothing like the parties the rules were designed for. And yet the framework has not kept pace.

An excavator who initiates several hundred tickets per year, a facility owner responsible for system integrity, and a locating organization handling millions of requests annually are not comparable actors. Yet the regulatory framework often treats them as if they are.

Penalties that escalate on a second, third, or fourth failure may be reasonable when applied to low-volume activity. At scale, they function very differently. For organizations processing thousands of requests daily, including both contract locators and in-house utility locating teams, that same structure produces compounding exposure that no sustainable operating model can absorb.

In practice, financial penalties are often assessed at the facility owner level and passed downstream to locating providers. For utilities that perform locating in-house, that same financial exposure lands directly on the utility itself. In either case, whether contract locator or in-house team, the party absorbing the financial impact is rarely the party with the most control over the conditions that produced it. The result is a system where accountability, control, and financial impact are structurally misaligned.

Enforcement should be designed to drive compliance, not simply penalize outcomes.

That imbalance is structural, and regulators and legislators have an obligation to account for it.

The ask is not to eliminate accountability for locating professionals. The ask is for a framework that reflects operational reality: penalties calibrated to the scale of the party being regulated, enforcement mechanisms that distinguish between systemic failure and statistical noise in high-volume operations, and a meaningful voice in governance for the parties most directly affected by the rules being written.

In the majority of states, locating professionals do not have voting representation on 811 boards. In some cases, they are permitted in the room as advisory members, present but non-voting. Missouri recently joined states like Michigan in including locating professionals as voting members, a shift that represents the kind of governance reform the rest of the country should be watching. Two votes out of 17 is not a majority, but it is a meaningful voice.

811 centers, their governing boards, and the regulatory frameworks around them all play a role in how these decisions are made. Today, those decisions are often made without full participation from the parties who bear the operational consequences most directly.

That is not a balanced governance model. It is a transfer of liability without corresponding control over the conditions that create it

811 Centers: Neutral Isn't Good Enough Anymore

811 centers are the gatekeepers of this system. Every ticket passes through them.

Every scope description, every set of locate instructions, every emergency designation enters the system through their intake process. That position carries responsibility that the phrase "we just take the tickets" does not adequately describe.

The most important thing 811 centers can do is provide a quality ticket. Not just a received ticket. Not just a processed ticket. A quality ticket, meaning one that contains accurate, specific excavation information that allows a locating technician to do their job efficiently and correctly.

That distinction is the difference between a 20-minute locate and a 40-minute one, multiplied across tens of millions of tickets annually.

Providing a quality ticket is not just about intake. It requires actively identifying and addressing repeat patterns that degrade ticket quality. When certain instruction sets, blank scope fields, or oversized requests appear consistently from the same sources, those patterns should trigger intervention, not simply pass through the system unchanged.

The shift toward web-entry ticket submission has increased volume while reducing the human review that once existed at intake. Some centers have audit programs, but the capacity to review a meaningful share of the tens of millions of tickets flowing through annually has not kept pace. The result is a system where problematic tickets move through without challenge: oversized scopes, generic instructions that blanket entire properties when work is confined to a single trench, emergency designations applied to routine work. One of the most straightforward steps available to 811 centers is making the scope of work a required field, not optional. A ticket that cannot be submitted without a defined excavation area is a ticket that is already more useful than one that arrives blank.

The same applies to emergency designations. 811 centers are in a position to identify patterns where emergency tickets are used inconsistently with their intended purpose. An emergency ticket doesn't just add volume. It breaks a technician's route. A locator with a planned sequence of stops for the day who receives an emergency ticket mid-morning doesn't just add a stop. They abandon their current route, reprioritize in real time, and absorb the downstream consequences of everything that now goes late as a result. Legitimate emergencies require that disruption, and locating professionals accept that. What they cannot sustainably absorb is the routine misuse of emergency designations for work that was simply not planned far enough in advance. 811 centers have the data to identify when emergency designations are being applied inconsistently

with their intended purpose. Using that data to strengthen guidance around what qualifies, and following up with excavators who repeatedly misuse the designation, is one of the highest-leverage actions available to 811 centers right now. Strengthening guidance and oversight around what qualifies as an emergency would reduce unnecessary disruption in the field and allow legitimate emergencies to receive the response they require.

811 centers have the data. They can see which excavators are submitting tickets with blank scope fields. They can flag which instruction sets appear on dozens of tickets verbatim. They can track when emergency designations spike in ways that bear no relationship to any actual emergency. Having that information without acting on it is a missed opportunity the industry can no longer afford.

The obligation goes further than data collection. Some centers are already exploring AI-assisted ticket review to flag problematic requests before they enter the queue. Used correctly, these tools can help identify patterns and direct attention to higher-risk tickets.

When applied without context, automation can introduce additional noise rather than reduce it. That work should be shared across the industry and continue to evolve as a support to stronger ticket quality standards, not a replacement for them.

What Everyone, Including NULCA, Needs to Commit To

Our first article named the problem. This article names the parties. This is where we define a starting point. And where NULCA names itself alongside everyone else.

We are not calling on other stakeholders to do things we are unwilling to do ourselves. That would undermine everything we said in the first article, and we said it clearly: we own our part.

That means accepting that our industry has taken work at prices we knew were unsustainable, and that we have not always held ourselves to the training and quality standards we ask others to fund. That changes now.

NULCA commits to the following:

- Advocate for contract best practices that make quality execution possible
- Promote and expand adoption of accredited training standards
- Strengthen awareness and use of NULCA accreditation, and call on facility owners to treat accredited training programs in contracts as a meaningful standard
- Support workforce development and recruiting pipelines
- Be more vocal on accurate facility records and upstream inputs

- Lead with accountability for the industry's role

NULCA will also evaluate opportunities to strengthen standards and guidance that support long-term improvement.

Beyond NULCA's own commitments, we are calling for a shared industry commitment to ticket scope discipline: a collaborative effort among excavators, facility owners, 811 centers, and regulators and policy makers to finally treat ticket scope as a system design issue rather than an individual inconvenience. The industry must also develop real forecasting mechanisms for large-scale projects. Locate companies cannot staff for demand they cannot see coming.

Several states have project ticket models that require advance planning, structured timelines, and coordinated response for large-scale work. Arizona is working toward legislation that would require excavators submitting tickets covering 10 or more addresses to engage in advance planning conversations with utility operators and locate companies, with extended timelines built in. The legislation is still being finalized, but it is moving in the right direction, and we hope it passes. Other states, including Missouri, Michigan, and Illinois, have created volume awareness mechanisms that trigger notification when ticket volume exceeds prior-year levels by a defined threshold, not a lever to stop the flow, but a signal that allows locating companies to prepare. These approaches are working.

They should be the standard, not the exception.

This does not require new legislation in every state tomorrow. It requires the industry to agree, publicly and on the record, that unlimited scope is a structural problem. The CGA conference is the place to start that conversation, not another opportunity to document the damage without addressing the cause.

If every excavator called in only the work they were actually doing that week, on-time performance would improve. If facility owners provided meaningful advance notice on large projects and consistent access to accurate records, staffing crises would become staffing plans. If 811 centers used their position at the gate to flag and reduce problematic ticket patterns, system efficiency would improve for everyone. If regulators built enforcement frameworks that account for volume reality, the accountability conversation could finally be honest.

Most of these fixes do not require a decade of policy reform. They require the will to start.

The Stakes Have Not Changed

People continue to be injured or killed because the system was not designed to prevent these outcomes at today's scale.

These outcomes are not unpredictable. They are the result of conditions the system has allowed to persist.

The locating technician is in the field. They are still carrying the paint can. Still taking the call when the investigation starts. Still absorbing a disproportionate share of the impact from a system that was always going to produce this outcome.

We are not going to accept that burden silently. And we are no longer willing to have this conversation only in private.

The question is no longer whether the system can improve.

The question is whether the industry is willing to change the conditions that produce these failures.

NULCA, the National Utility Locating Contractors Association, represents utility locating professionals across the United States. To engage with NULCA on damage prevention reform, visit nulca.org.

Note: *The Common Ground Alliance (CGA) is a member-driven association of nearly 4,000 damage prevention professionals across the underground utility industry. Established in 2000, CGA works to prevent damage to underground infrastructure through shared responsibility across stakeholders. The CGA DIRT Report is the most comprehensive national analysis of damages to underground infrastructure in North America. The latest report is available at: https://dirt.commongroundalliance.com/*

← **PREVIOUS**

This System Is Designed to Fail. We're …

411 West Lexington Street
Richmond, MO 64085

About NULCA
Membership
Accreditation
News
Contact Us