California Underground Facilities Safe Excavation Board

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Agenda Item No. 10 (Information Item) Staff Report

Planning and Design Information Exchange Update

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SUMMARY

This report provides an update on development of the planning and design information exchange required under Government Code section 4216.1(b)(1). It includes stakeholder engagements and identifies key considerations that will inform development of the regulatory framework. The purpose of this report is to:

- Provide a summary of stakeholder input received during recent workshops and identify recurring themes and areas of alignment across stakeholder groups.
- Present research on the purpose and rationale for a planning and design information exchange and explain how the current system creates limitations for obtaining utility information during the design phase.
- Describe next steps, including the Planning and Design Information Exchange Survey and additional stakeholder outreach that will inform upcoming draft regulations.

STRATEGIC PLAN

2020 Strategic Plan Objective: Improve Accessibility of Buried Infrastructure Location Knowledge and Understanding

2023 Plan Activity: Develop a Planning and Design Ticket

BACKGROUND

Government Code section 4216.1(b)(1) directs the Board to establish, through regulation, timelines, standard processes, information requirements, and data format standards necessary to facilitate a statewide planning and design information exchange. The statute also requires regional notification centers (RNCs) to facilitate the exchange and requires participation by all operators, except for the Department of Transportation.

Following the February 2026 Board meeting, there was continued work on stakeholder outreach activities consistent with the development plan presented in the November 2025 staff report. The Planning and Design Committee (Committee) conducted a second workshop on February 24, 2026, focused on standard processes and ticket procedures associated with the planning and design information exchange. The Committee is also gathering stakeholder input for regulatory development through planning and design surveys (one geared toward designers and excavators and one gear toward operators) that were launched in March 2026. The surveys contain questions focused on planning and design practices, requirements and standards, roles and responsibilities, and practical constraints. Together, these engagements build on feedback received during the January 2026 workshop on data requirements and digital format standards and are intended to inform forthcoming regulatory language that reflects practical operational realities across stakeholder groups.

DISCUSSION

Workshop Comment Analysis and Recurring Themes

Staff conducted two workshops in January and February 2026 to gather stakeholder input on the planning and design information exchange, focusing on data requirements, standard processes, roles and responsibilities, and procedural challenges and constraints. Both workshops were attended by designers, utility operators, RNC staff, excavators, and public agency staff, both in person and virtually. The following summarizes what was learned from the workshops and the themes that emerged across stakeholder groups.

Across every discussion topic, operators, designers, and excavators expressed the same underlying need: a predictable, well-defined process with clear expectations for all parties. Workshop attendees acknowledged that the current system is not sufficient and that a standardized regulatory framework is necessary to resolve the inefficiencies and accountability gaps around planning and design information exchange. See Attachment 1, Stakeholder Comment Analysis, for a structured analysis of stakeholder input drawn from workshops identifying the problem, proposed solution, regulatory drivers, and the unique and shared concerns of diverse stakeholder groups.

Response timelines were extensively discussed during both workshops. Stakeholders broadly supported a standard response window of 15 to 30 business days, with complexity-based or capacity-based extensions for larger or more technically demanding projects. Designers indicated a willingness to work within longer timelines if responses are substantive and complete. Operators emphasized that a single uniform deadline, without provision for operational variability, creates conditions for noncompliance that would be due to legitimate capacity constraints rather than an unwillingness to respond.

Stakeholders mentioned outdated records and incomplete data are persistent but not permanent obstacles. Both workshops surfaced the same underlying challenge: as built and design drawings are often incomplete, outdated, or stored in nondigital formats, making

accurate responses difficult. Stakeholders acknowledged that emerging technologies, including global positioning system (GPS) enabled locating instruments and geographic information system (GIS) integration, offer realistic paths forward, but progress requires regulations. There was broad agreement that outdated records should not be treated as a continued justification for incomplete design responses, and that the regulatory framework should establish expectations for digital record standards over time.

There is currently no consensus on whether planning and design requests should carry a fee or how fees should be structured. Some stakeholders argued that costs should be borne by project owners and not by operators or the public because the information exchange often serves a commercial project interest, not a public safety obligation in the same way excavation marking does. Additionally, stakeholders mentioned a fee structure based on project complexity and scope, or type of data request is not only appropriate but necessary for operators to sustain participation.

Utility operators in the gas and telecom sectors raised data security concerns during both workshops. However, stakeholders broadly acknowledged that much planning level utility information is already publicly accessible through county substructure maps, and physical markings through the 811 system. Some stakeholders suggested a qualified user verification process through the RNCs' systems and a non-disclosure agreement (NDA) might represent a more appropriate and workable approach than broad access restrictions as to not undermine the purpose of the exchange. Voluntary NDAs are already in use by some stakeholders and shows that such middle ground solutions could exist.

Both the RNCs — Underground Service Alert of Northern California and Nevada (USA North 811) and Underground Service Alert of Southern California (DigAlert) — currently operate design request processes, though the two systems differ in scope and functionality. There is currently no standardized mechanism for requesters or operators to document whether a planning and design request has been received and addressed. Stakeholders noted that without a formal communication process, requesters have no reliable way to document a non-response or escalate an unanswered request within established timelines.

There are varying opinions on appropriate project thresholds for when a planning and design information exchange system should be required While the general principle of having planning and design requirements set by project scope had broad support, stakeholders diverged on where the threshold should sit. One stakeholder specifically recommended limiting planning and design system use to projects exceeding $250,000 in cost or 0.5 to 1 mile in geographic scope, with routine small-scale work explicitly excluded. Other stakeholders expressed concern that having any threshold would create a gap that allows medium sized projects with real utility conflict risk to fall outside the system.

Stakeholders from both workshops identified incomplete project information and outdated or non-digital utility records as root causes of inefficiency in the current unregulated system.

Operators noted that vague or overly broad requests make it difficult to provide accurate responses. Designers noted that receiving schematic or incomplete data is insufficient for planning decisions. Both groups expressed strong alignment on the need for minimum required information in requests such as project scope, work type, location, construction start date, and contact information, and that the response should reference American Society of Civil Engineers (ASCE) 38-22 and ASCE 38-75 as a baseline for data quality wherever applicable.

Across both workshops, stakeholders discussed the ambiguity in who is responsible for what among designers, RNCs, and operators is a primary driver of delays, inconsistent responses, and accountability gaps. This affects every stage of the process: who submits complete information, who tracks whether a response was provided, and who is responsible for the quality of the data exchanged. Operators, designers, and RNCs suggested clear role definitions in regulation and not leaving these obligations to voluntary practice.

A recurring theme across both workshops was the question of what level of utility information is appropriate at each stage of the design process, and whether operator response obligations should be adjusted accordingly. Stakeholders broadly favored a phased framework that aligns information requirements with how design work progresses in practice.

Regulatory Concepts Informed by Stakeholder Input

Stakeholder engagement activities conducted so far have helped identify key concepts clarifying areas of alignment among stakeholders and identifying topics where policy direction from the Board is needed. The following is a list of those topics for the Board's consideration:

<u>Who May Submit a Request and Under What Circumstances</u>

- Who qualifies as an eligible submitter of a planning and design request?
- When is a submission mandatory? Is it based on project type and/or size?
- If there are thresholds, how should they be balanced so they are not set too high, creating gaps that leave smaller but significant projects outside the system, or set too low, creating a workload that overwhelms operator response capacity and displaces resources from active excavation locate and marks.

<u>Operator Response Timelines</u>

- What are the operator response timelines for planning and design requests that facilitate early project coordination while accounting for operator capacities and availability of utility records?
- Is the operator response timeline uniform for all projects or is there a need for adjustment based on project scope, complexity, or stage of design?

<u>Minimum Information Requirements and Data Standards</u>

- What information is required when initiating a request; such as project location, work type, anticipated construction start date, up-to-date contact information,

etcetera?
- Should there be standardized minimum information required in operator responses.

Aligning the regulations with recognized standards

- Should the new regulations align with recognized standards such as ASCE 38 as a framework for communicating utility data quality and accuracy during the planning and design phase?
- Should the regulations align with recognized other standards to improve consistency while accounting for limitations in existing records. Such standards can serve as a practical guide to reduce confusion around roles and expectations. They can also provide a reference point for stakeholders to assess the quality of their own submissions and responses. While not intended to be universally applicable, they may still serve as an important foundation for consistency and continuous improvement over time.

Roles, Responsibilities, and Accountability

Ambiguity in roles and responsibilities has been identified as a source of delays and inconsistent coordination during the planning and design phase. Designers, operators, and RNCs currently rely on a combination of informal practices and individual coordination rather than clearly defined expectations.

- Who is responsible for initiating requests, facilitating communication through information exchange facilitated by RNC systems, and providing utility information?
- Is a tracking or verification of receipt needed to confirm that planning and design requests have been received and addressed?

Cost Recovery

Stakeholders have discussed whether operators should be permitted to recover costs associated with responding to planning and design requests. Operators noted that responses may require engineering review, preparation of mapping data, and coordination, which can be time consuming. Some stakeholders have suggested that planning and design coordination primarily benefits project development and that costs should be borne by project owners or requesters, while others expressed concern that fee structures could create barriers for smaller agencies or organizations seeking access to planning-level information.

The Board's Committee also recognized that, because the planning and design information exchange is a state-mandated process, establishing a cost recovery framework through regulation may present policy considerations. At this stage, the Board may want to consider not including regulatory language related to cost recovery.

Terminology and Scope of the Exchange

Stakeholders have noted that referring to the mechanism as a "ticket" may create confusion with excavation notifications and may imply that Electronic Positive Response requirements

apply. At the same time, it was indicated that 811 excavation tickets are currently being used to obtain planning and design information, reflecting a broader reliance on the existing system to meet planning and design needs. Designers have also noted that this reliance is often driven by the need to verify the accuracy, consistency, and completeness of available utility information, while operators and call centers have observed this practice as part of current system use.

Current stakeholder behavior reflects an effort to address gaps in available planning and design information rather than isolated misuse of the system. Suggesting that stakeholder behavior is influenced not only by how the system is intended to function, but also by gaps in available information, reduced trust and credibility, and varying levels of confidence in existing design information shared.

This raises a broader policy consideration for the Board regarding how a planning and design information exchange should be structured to meet stakeholder needs, improve reliability of information, and reduce reliance on processes that were not designed for this purpose, including whether certain aspects should be formally recognized or incorporated into a standardized framework. To address these considerations:

- What is the appropriate mechanism for planning and design information exchange, given current stakeholder reliance on the 811 system to meet these needs?
- How should regulations define the appropriate scope and use of a planning and design request to ensure it
    - only supports design phase information exchange?
    - improved quality of design information being shared? and
    - reduces the need for stakeholders to rely on excavation notifications?
- How should regulations define expectations for design documents, standardizing minimum information requirements, and promoting more consistent delivery of planning-level utility information?
- Should regulations adopt the term “planning and design request” (or “design request”) to clearly distinguish this mechanism from 811 excavation tickets and avoid confusion with excavation notifications?

Why a Planning and Design Information Exchange Matters

The planning and design information exchange is not only a new regulatory requirement, but it is also a structural solution for the existing inefficient design information system. Without a dedicated information portal for obtaining utility location data during the design phase, project designers and contractors have had no choice but to rely on existing systems. The result is a set of workarounds that impact the 811 system, impose unnecessary workload on operators, and ultimately undermine the purpose that the excavation notification framework exists to serve (i.e., promote public safety). The planning and design information exchange creates a dedicated, structured channel through which project designers can obtain utility location information at the right stage and for the right purpose, without overburdening the

excavation notification system.

Often designers working without a planning and design resource have indicated during workshops and stakeholder engagement that some personnel submit excavation tickets, with no intention of excavating, to obtain utility location data they need for design decisions. Similarly, stakeholders noted that multiple contractors submit tickets for the same job site to evaluate bid costs before committing to a project. Each of these tickets consumes operator and locator resources.

A study funded by the Federal Highway Administration (FHWA) analyzed over 72 highway projects costing more than a billion dollars in construction value and found that investing in design-stage subsurface utility engineering (SUE) returned $9.19 for every dollar spent[1]. SUE costs represented less than 0.5% of total construction value, yet produced measurable savings through avoided conflicts, reduced emergency relocations, and fewer contractor delay claims. Consistent with these findings, workshop participants emphasized that the cost of identifying a utility conflict during early design is significantly lower than addressing the same conflict during construction. Designers spend less time accounting for uncertain data or inaccurate maps and less time on redesign when conflicts are identified early. Overall, the return on early design-stage coordination is positive, consistent, and replicable across project types and geographies.

Change orders typically budgeted at around 10% of project costs are often the most direct and immediate financial impact of utility conflicts discovered during construction[1]. During the workshops, engineers discussed how inaccurate or unavailable utility information act as a primary driver of change orders and noted that accurate early information can substantially help. They mentioned an unidentified utility conflict mid-excavation means a stalled crew, an emergency redesign, and resources lost to a problem that existed on a map long before the first excavation began.

The Common Ground Alliance (CGA), through its Next Practices Initiative, identified a comprehensive GIS-based mapping system solution as among the highest return on investments (ROI) available to the damage prevention industry, one that addresses the problem structurally and over the long term rather than through short-term fixes.[2] CGA estimates the damages to underground utilities costs the United States approximately $30 billion annually, with hundreds of thousands of incidents each year, and the trend is worsening despite decades of public and private awareness efforts.[3] The current level of damage reflects ongoing gaps in utility data information exchange, coordination, and accountability, and highlights the importance of establishing systems that incentivize stakeholders to maintain

[1] Cost Savings On Highway Projects Utilizing Subsurface Utility Engineering Note: Dollar amount has been adjusted to approximately $9.08 in 2026 dollars using the U.S. Department of Labor's Consumer Price Index (CPI) calculator.

[2] DIRT Report – 2019

[3] CGA Next Practices Initiative – Opportunities for systemic improvement with greatest ROI for industry (2021)

and provide accurate information from the earliest stages of project planning.

Lastly, Before You Dig Australia (BYDA) was established following a serious excavation incident in 1984. Under the system, a project initiator submits an inquiry by identifying the project site; providing project details, including location, work type, and start and end dates; and describing the scope of work. The system identifies all affected utility owners, notifies them of the inquiry, and returns utility plans and safety guidelines directly to the requester. The response time is typically within minutes but allows up to two business days[4]. The system explicitly distinguishes planning and design inquiries from standard excavation notifications, and serves as an example of a centralized, standardized utility information exchange designed to support early coordination and information access during early design phase.

NEXT STEPS

Staff will continue conducting stakeholder engagement activities to obtain additional input. Additionally, staff will analyze survey responses to identify areas of alignment and differences across stakeholder groups. Additional outreach meetings will be conducted with stakeholders to gather further input on topics that benefit from more detailed discussion, including data security considerations and operational constraints associated with responding to planning and design requests. The combined input from workshops, surveys, targeted outreach meetings, and ongoing research will inform the development of proposed regulatory language, which is planned to be presented at the July 2026 Board meeting.

RECOMMENDATION

Staff recommend the Board provide input on the direction of the regulatory development process, including the concepts presented, and if there are any key considerations, additions, or modifications they would like staff to explore further as regulatory language is developed.

ATTACHMENT

1. Stakeholder Comment Analysis

[4] BYDA – Guide to free plans

Attachment 1 – Stakeholder Comment Analysis

Topic/Issue	What is the problem?	What is the potential solution?	What drivers are needed?	Operator Challenges	Excavator/Designer Challenges	Crossover (Shared)
Design request Initiation & Timing	No consistent timeline for when to submit a planning and design request; process varies by project and company policy.	Establish standardized timelines for initiation of a planning and design request.	Govt. Code § 4216.1(b)(1); industry consensus on thresholds; stakeholder input.	Designer confusion about when to use a planning and design request instead of an excavation ticket can lead operators to receive requests too early, too broadly, or for projects that may never proceed, creating unnecessary workload and making it difficult to prioritize active excavation obligations. Some operators also expressed the opinion that small or routine projects should be exempt to avoid burdening limited operator staff.	Designers often need utility information early in the design process, sometimes 9–24 months before construction. Without a clear process they often use excavation tickets and potholing as workarounds. This creates confusion and pushback from operators, and results in delays in design decisions, especially where record drawings are insufficient for critical conflict analysis.	Both stakeholder groups want clarity on timing to reduce wasted effort.
Existing Practices & Informal Coordination	Current planning and design information gathering is manual, informal, and varies by region, relying on 811 excavation tickets, direct operator outreach, and on-site surface reviews rather than a standardized process. This produces inconsistent	Transition from per-request coordination to a standardized, legally mandated statewide information exchange with defined steps for how requests are initiated, reviewed, updated, and closed.	Govt. Code § 4216.1(b)(1); stakeholder input.	Operators receive inconsistent or incomplete requests, making it difficult to determine what level of response is appropriate; no clear obligation to respond under current framework besides intention to protect its assets.	Designers lack a reliable channel to gather information; outcomes depend heavily on individual relationships and operator willingness to engage.	Both stakeholder groups acknowledged the current informal system is insufficient and support moving to a standardized process.

Topic/Issue	What is the problem?	What is the potential solution?	What drivers are needed?	Operator Challenges	Excavator/Designer Challenges	Crossover (Shared)
	information access, variable data quality, and unclear expectations for both designers and operators.					
Required Design Request Fields & Scope Information	Absence of standardized minimum data requirements results in incomplete or inconsistent submissions, limiting operators' ability to provide accurate and useful responses.	Establish minimum required design request fields including project scope, work type, location, construction start date, site context (roadway vs. private property), contact information, etc.	Govt. Code § 4216.1(b)(1) data requirements authority; stakeholder input.	Vague or incomplete design request submissions force operators to make assumptions or follow up, increasing workload; especially burdensome for smaller utilities.	Designers need a clear, predictable list of what to submit so they can complete requests efficiently; uncertainty about required information causes delays and rework.	Strong alignment: Both stakeholder groups support standardized core fields as a foundational need. Stakeholders emphasized "any information is better than nothing."
Data Quality & Accuracy of Records	As-built/design drawings are often incomplete, outdated, or in non-digital formats; no uniform accuracy standard at the planning stage.	Establish minimum acceptable data quality levels (e.g., ASCE 38-22 and QL-B/A for planning complex projects)	ASCE 38-22 standard adoption; regulatory mandate for formats; other requirements such as SUE for high-risk/costly/complex projects; stakeholder input.	Small/rural operators lack resources to maintain accurate GIS; old paper records not digitized; liability risk if inaccurate data shared.	Receive schematic or vague data that is insufficient for planning and design decisions.	Both stakeholder groups agree more accurate, up-to-date data is needed. Both face risk from inaccurate data.
Response Timelines	No standardized response timeline for operators; wide variation across facility operators and project types creates uncertainty for	Establish tiered response timelines (e.g., 15-30 business days for design requests, contingent on project	Regulatory timelines under Govt. Code § 4216.1(b)(1); alignment with existing 811 response frameworks; operator capacity	A fixed response deadline may not reflect operational realities where project scope, limited staffing, outdated records, internal coordination, request volume, and potential NDA execution all affect	Without predictable timelines, designers cannot reliably sequence survey work, utility coordination, and design milestones. Delayed responses	Both stakeholder groups want predictable, defined timelines to plan workflows effectively.

Topic/Issue	What is the problem?	What is the potential solution?	What drivers are needed?	Operator Challenges	Excavator/Designer Challenges	Crossover (Shared)
	designers.	complexity/size).	assessments; stakeholder input.	turnaround time.	can slow project development, increase redesign risk, and reduce confidence in whether needed information will be available early enough to avoid later field conflicts.	
Information Format & Compatibility	Inconsistent data formats and lack of interoperability across systems hinder efficient data sharing, integration into design workflows, and usability of information provided.	Allow multiple formats with clearly defined minimum content requirements (such as maps, records, drawings).	Stakeholder input.	Complex technical format requirements may exceed capacity of smaller utilities; risk of excluding them from standardized exchange.	Older formats received make it difficult to use data in design tools and may lack accuracy.	Both stakeholder groups support flexible formats with defined minimums.
Roles & Responsibilities	Ambiguity in who is responsible for what during the planning and design phase; designers, RNCs, and operators each have unclear obligations.	Define explicit roles and definitions in statute (e.g., designers submit complete project scope, RNCs facilitate and track transmissions, operators respond with design information within defined timelines).	Clear regulatory definitions under Govt. Code § 4216.1(b)(1); RNC systems to track communication; stakeholder input.	Operators are unsure about the extent of their obligation during the planning phase, including whether they must only provide maps/records, clarify incomplete requests, schedule field meetings, provide tracking responses, or update records after construction. There was also concern about being expected to support evolving designs without clear limits or accountability from other parties.	Designers and excavators face uncertainty over what constitutes a thorough design request, what level of detail they must provide, when they must update or close requests, when due diligence like potholing is still required, and who bears responsibility for capturing improved as-built or GIS data after	Both stakeholder groups support clearer role definitions instead of legal requirements, to reduce confusion and avoid delays.

Topic/Issue	What is the problem?	What is the potential solution?	What drivers are needed?	Operator Challenges	Excavator/Designer Challenges	Crossover (Shared)
					installation. This ambiguity contributes to delays, repeated requests, and gaps between design information and field conditions.	
Security & Data Sensitivity	Some operators are concerned about sharing sensitive facility location data especially in the telecommunication and gas industries.	Implement access through NDAs; only "qualified users" should be requesting information.	Data security protocols; use of NDA; qualified user verification through 811 center existing contact information; stakeholder input.	Operators expressed concern about ensuring that detailed facility maps shared through a planning and design information exchange do not become publicly accessible. Some utility operators currently use non-disclosure agreements (NDAs) to ensure utility data security and misuse..	Designers need unredacted and detailed data to make appropriate planning and design level decisions.	Both stakeholder groups acknowledge data sharing is necessary; both want a balanced solution. Voluntary NDA use shows a willingness to find middle ground and is already practiced.
Cost Recovery & Fees	No consensus on whether planning and design requests should carry a fee; unclear on who should be responsible for paying it.	Explore varying fee structures based on project size, complexity, etc. Distinguish baseline data sharing (no charge) from advanced planning and design services (SUE, field meets) which may carry fees.	Clear definitions of varying levels of design request; considerations for smaller operators; stakeholder input.	Some operators currently provide design information at no charge but are evaluating fee models; small operators may need cost recovery to participate.	Some excavators/designers are willing to absorb fees if clearly defined and scoped to project cost; concern about unpredictable or arbitrary fees as it may be dependent on an operator's discretion.	Both stakeholder groups agree the fee model needs resolution and that cost burden is real.

Topic/Issue	What is the problem?	What is the potential solution?	What drivers are needed?	Operator Challenges	Excavator/Designer Challenges	Crossover (Shared)
Excavation Ticket Misuse Prevention	Excavation tickets being used for design purposes ("ticket misuse"); lack of a clearly defined and adopted planning and design information exchange contributes to misuse of excavation tickets.	Clarifying terminology in regulatory language to define the purpose and use of a design request as distinct from excavation activities, such as a clear "***Not for Excavation."***	Statutory authority under Govt. Code § 4216.1(b)(1); stakeholder input.	Operators experience overuse of excavation ticket system for design purposes, creating workload without regulatory justification.	Excavators may feel "forced" to submit an excavation ticket if they are unable to obtain planning and design information or when the planning and design process is unclear or delayed. They acknowledged using it as a last resort to gather vital utility information to avoid project planning conflicts.	Both stakeholder groups are affected by the misuse of existing RNC system for planning and design purposes by using excavation ticket.
Subsurface Utility Engineering (SUE)	Unclear expectations for when and how SUE should be used in relation to planning and design requests leads to inconsistent application and gaps in subsurface data reliability.	Define thresholds for mandatory SUE (e.g., complex urban projects, large capital projects). Align with ASCE 38-22 QL standards; allow lower QL for planning-stage responses.	ASCE 38 and 75 adoption; integration into design bid/build process; project-type thresholds; stakeholder input.	High-accuracy SUE (QL-A/B) requires specialized equipment and personnel; cost and capacity are barriers for many operators	Designers may recommend SUE but have no authority to require it, unless it is written into the contract by the owner or mandated by statute; it is hard to require regardless of project risk	Both stakeholder groups support SUE as a valuable tool for improving data accuracy; general agreement on project owner bearing the cost.