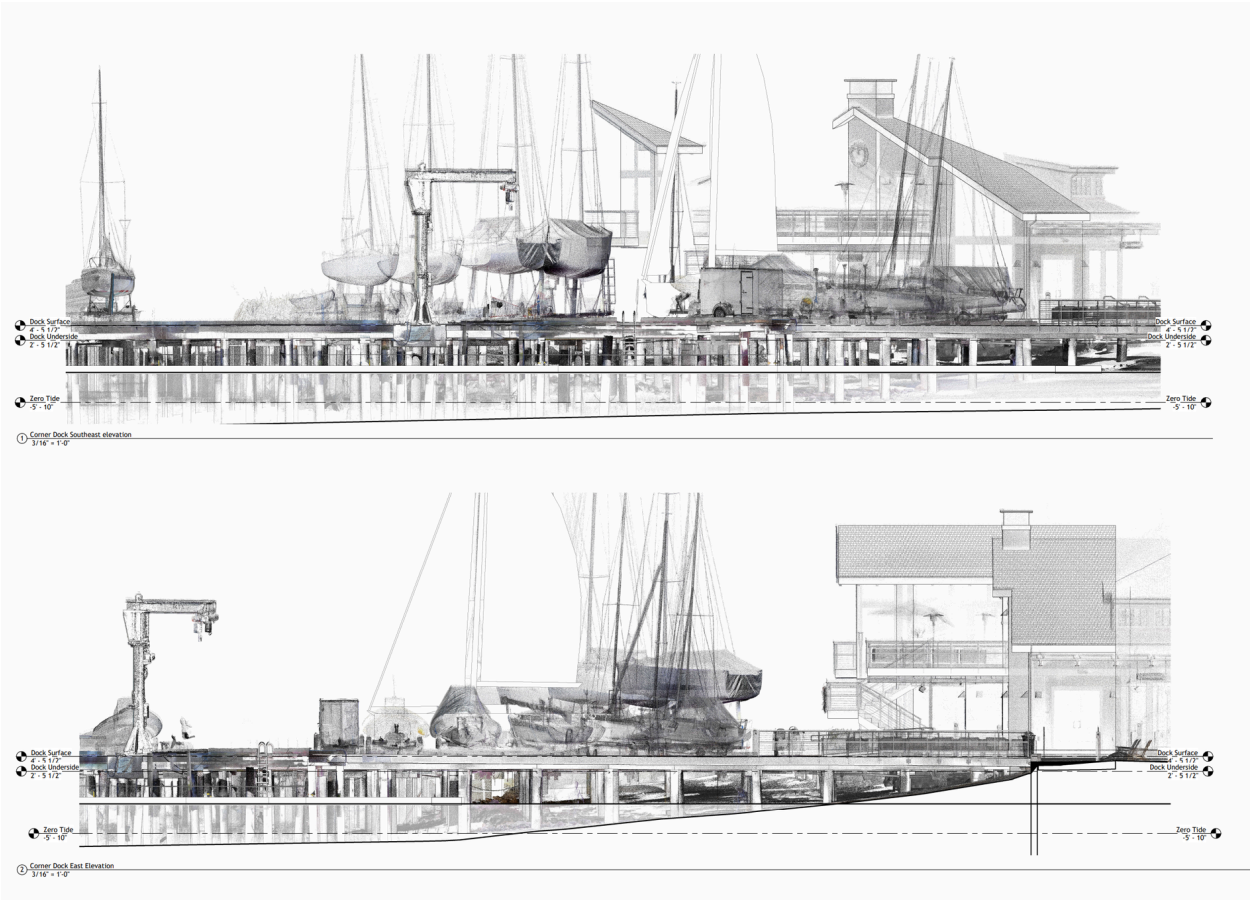


Existing Conditions Documentation for Recreational Facilities

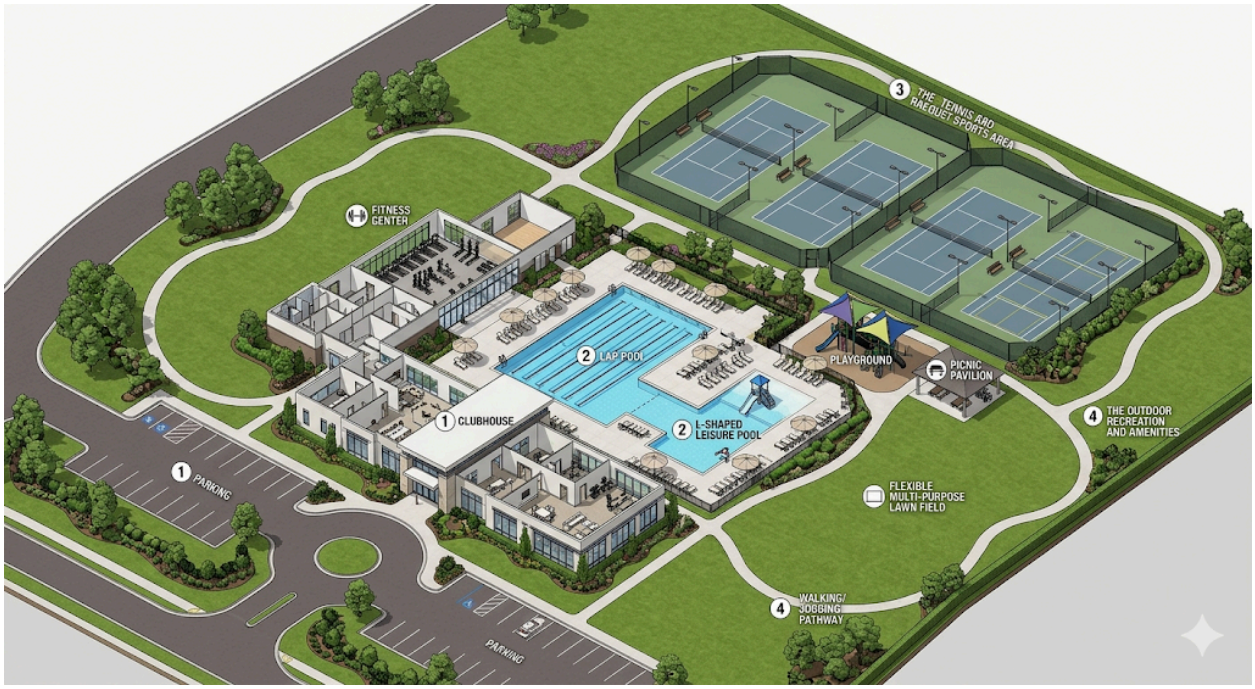
The successful management and long-term viability of recreational facilities hinge on a deep and accurate understanding of their current state and their ability to meet the changing needs of their community. From municipal parks and community centers to specialized sports complexes, these public assets face constant challenges related to new desired facilities and services, wear, changing safety standards, and the need for strategic capital planning. This white paper explores the critical role of comprehensive "existing conditions documentation" as the foundational step for any maintenance, renovation, or expansion project. By moving beyond anecdotal evidence and undocumented systems data and cursory visual assessments, detailed documentation provides the objective, verifiable data necessary for making informed, cost-effective decisions that ensure the facilities remain safe, functional, and valuable to the community they serve.

What is Existing Conditions Documentation?

All recreational facilities share buildings, grounds, site elements, and specialized structures and amenities that benefit from detailed, accurate documentation for operations, maintenance and planning. Most rely on the institutional knowledge of maintenance staff and as-needed data collection when facing maintenance issues, expansion or renovation. Maintenance staff may

have a wealth of knowledge and experience related to the facility, but many are nearing the end of their career and have not documented their knowledge sufficiently to allow others to fill their shoes. Planned and unplanned maintenance and repairs typically require documenting one or more of the affected club facilities costing time and money and too often requiring duplicate effort. Existing conditions documentation involves measuring, modeling, and recording buildings, structures, courts, pools and other elements in order to generate a readily accessible, sharable record that can act as the foundation for all facilities planning and operations.

Typical Existing Conditions Documentation for recreational facilities includes accurate and up to date plans for the entire site. Plans always include site plans, floor plans, roof plans and elevations of significant structures (including pools, courts …). Lighting, electrical, HVAC, mechanical, and landscape plans may be included and add value to the existing conditions documentation. Increasingly Clubs and campuses are choosing to move from traditional 2D CAD plans to 3D BIM to increase the amount and utility of the data for planning purposes and to reduce the cost and difficulty of generating presentation graphics to communicate with the club community, vendors and permitting authorities.



2D CAD vs BIM

BIM (Building Information Modeling) and 2D CAD (Computer-Aided Design) differ fundamentally in their approach to design and data. 2D CAD is a digital drafting tool, essentially replacing the drawing board with a 2D digital environment to create lines, arcs, and shapes that represent building elements. Like CAD, BIM focuses first on geometry and the creation of accurate and usable design documentation (drawings) for planning, design and construction.

BIM extends CAD by generating a 3D model that can become an information-rich database of the building's physical and functional characteristics. BIM models always contain geometry, but also can extend to include non-graphic data about the elements (like material, cost, manufacturer, and performance), allowing for better collaboration, analysis, quantity take-offs (QTO), and lifecycle management of the project, moving beyond just documentation to create a virtual representation of the building.

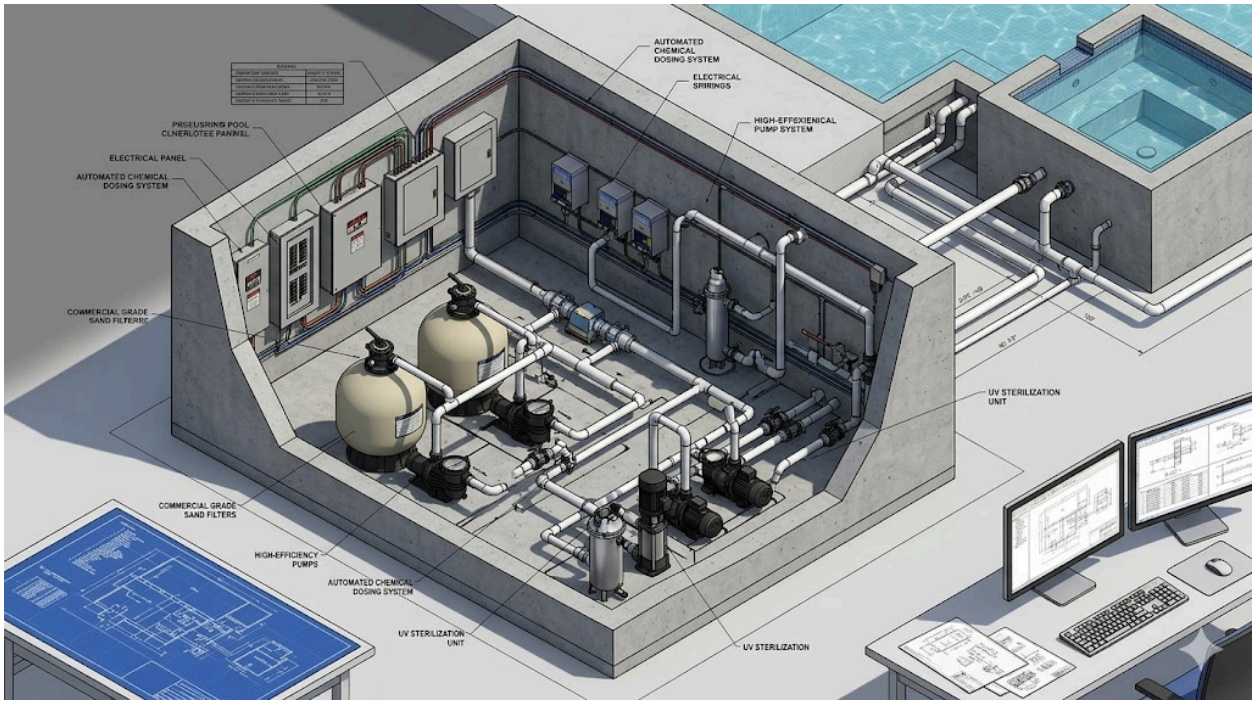
Existing Conditions Value in Strategic Planning

Existing Conditions documentation is a critical component of effective strategic planning for recreational facilities. By providing a comprehensive, objective, and data-rich understanding of all assets—including their exact dimensions, materials, and non-graphic data—it allows facility management to move from reactive maintenance to proactive, long-term decision-making. This detailed data informs strategic planning by clearly identifying which facilities are nearing the end of their useful life, pinpointing areas that require immediate attention for safety or operational efficiency, and accurately forecasting future capital needs. Ultimately, documentation-driven strategic planning enables clubs and municipalities to prioritize capital improvement projects, justify resource allocation to stakeholders, and ensure that investments align with the facility's long-term vision and community value. 3D BIM based Existing Conditions Documentation amplifies this value by enabling dynamic and potentially immersive demonstration of potential changes to elicit stakeholder feedback early in the process avoiding costly changes, delays and dissatisfaction.

Existing Conditions Value in Capital Improvements

Existing Conditions documentation is indispensable for successful Capital Improvement projects, serving as the single source of truth for all physical assets. Detailed documentation, especially 3D BIM models, drastically reduces the risk of unforeseen conditions and design errors that lead to costly change orders and project delays.

By providing accurate measurements, materials data, and non-graphic performance information upfront, it allows project teams to scope work precisely, select appropriate materials, and accurately forecast budgets. This foundation of reliable data enables architects and engineers to design renovations or expansions that seamlessly integrate with the existing infrastructure, ensuring a smooth transition from planning through construction, and ultimately maximizing the return on investment for the community and facility stakeholders.



Existing Conditions Value in Maintenance and Operations

Existing conditions documentation is paramount for optimizing the daily maintenance and long-term operations of recreational facilities. By providing facility managers with a precise, accessible, and information-rich record of every asset, it transforms reactive maintenance—responding to failures after they occur—into a predictive, planned activity. Detailed documentation, including floor plans, equipment specifications, and utility routes, significantly cuts down on troubleshooting time for repairs and service issues.

Furthermore, a central repository of data about materials, warranties, and maintenance histories allows for more accurate inventory management, streamlined regulatory compliance, and efficient scheduling of preventative maintenance tasks, ensuring maximum uptime and a consistently high-quality experience for the community members and users of the facility.

Existing Conditions Process and Deliverables

Typical existing conditions documentation for a recreational facility project is typically executed as follows:

1. **Input:** Starts with thorough on site data capture including interior and exterior LiDAR scanning, 360° photography and video, and drone photography of buildings, site elements, parking and significant landscape features.
2. **Model Development:** The design team interprets the LiDAR “point cloud” and photographs to generate an overall 3D model with detailed sections and elevations for critical buildings and elements.

3. **3D QA:** a low detail 3D “walkthrough” is quickly generated by the BIM software to allow the modeling team to identify errors. This walkthrough can be a very valuable tool for the owner and consultants to visualize the space without repeated site visits and without distracting furnishings.

Optional Documentation

1. **Detailed Landscape Plan**: Includes the location, diameter, canopy size and genus of significant trees, location and elevation of walls, fences and other major landscape features. A Detailed Landscape Plan may also include all plantings, lighting, irrigation and more.
2. **Detailed Electrical Plan:** Includes location of lighting and other electrical elements and can include circuit information.
3. **Structural Plan:** A basic Existing Conditions Model will include significant beams, columns and other visible structural elements. To fully map the structures in a recreational facility requires excavation along foundation walls and opening walls to determine the location and sizing of hidden posts, beams …
4. **Deliverables:** The primary output is an Existing Conditions Model and associated documentation, including:
    - 2D Floor plans, reflected ceiling plans, sections, and elevations
    - Site plan including the decks, retaining walls and hardscape immediately adjacent to the building
    - Kitchen and primary bath interior elevations. Additional sections, interior elevations and landscape details can be added as an option.
    - 3D BIM model typically generated in Autodesk’s Revit format. This format can be exported to other CAD and BIM software as needed.
    - Low detail 3D fly-through.
5. **Reports and Schedules** can be generated from the BIM model to itemize any type of element in the model.

Comprehensive **Existing Conditions Documentation** is not merely a technical exercise but a vital strategic imperative for the successful, long-term stewardship of recreational facilities. By replacing outdated, anecdotal methods with objective, data-rich records—particularly those based on **3D Building Information Modeling (BIM)**—facility managers and stakeholders gain an unparalleled, single source of truth for their physical assets. This foundational data directly informs and optimizes every aspect of facility management: transforming maintenance from reactive to predictive, drastically de-risking capital improvement projects, and enabling sound strategic planning that aligns investments with community needs and long-term vision. Ultimately, a commitment to detailed existing conditions documentation is the most powerful tool available for ensuring a facility remains safe, functional, and valuable for generations to come.

For more information or to arrange a preliminary needs assessment please contact James Roche at j@gt3d.com