



**GRAHAM
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THE PAVILION
at the Hospital of
the **University of
Pennsylvania**

A Graham
Company

**CASE
STUDY**



A Team with Shared Goals

THE HEART of Penn Medicine

Over a year before the first shovel struck the ground on the 17-story, \$1.5 billion Pavilion, Graham Company was already working with Penn Medicine and their key design, architecture, engineering and construction management partners (collectively the PennFIRST team). The combined team created a set of comprehensive and cost-effective programs that positioned the project for success under a truly unique method of construction called Integrated Project Delivery (IPD).

The IPD model represents a fundamentally different and unique approach to designing, planning and building large construction projects. And it starts with a commitment to collaboration. Graham and Penn Medicine spent over a year creating a custom professional liability insurance program designed to respond to the unique demands of the IPD paradigm. This model encourages and incentivizes the project team to “rectify” design and engineering issues in a collaborative manner, instead of forcing the parties into the inherently adversarial position of filing claims or lawsuits against each other to settle disputes.

Located in the heart of Penn Medicine’s world-renowned campus – across from the Hospital of the University of Pennsylvania and adjacent to the Perelman Center for Advanced Medicine – the project presented a myriad of logistical and risk management challenges to ensure no interruption to the ongoing operations of the surrounding facilities.

To be successful in a risk-intensive environment that includes major roads on three sides, multiple adjacent cancer centers and hospitals, a commuter railroad station directly south of the site, a helipad across the street to the north, as well as an operating museum filled with priceless artifacts directly east of the project site, the team understood that a single unified safety program that exceeded Occupational Safety and Health Administration (OSHA) standards would be needed.

On-Site Drug & Alcohol Testing & Medical Treatment

Recognizing the importance of having only contractors on the project site who were committed to the safety of both their employees, as well as the general public, Penn Medicine and the Construction Manager (CM) worked with Graham to implement a comprehensive on-site drug and alcohol testing program for all participating contractors. This program is a first for a Penn Medicine construction project and has yielded an impressive 99% negativity rate. Another first was the on-site medical treatment center, which the team put in place to ensure any injured workers would receive timely, effective medical treatment, enabling them to return-to-work as quickly and safely as possible.

Project Quick Facts



- Penn Medicine's Pavilion is the largest capital project in its history, a \$1.5 billion investment in the future of healthcare delivery
- The 17-story hospital will include 500 private patient rooms, a new emergency department and 47 operating rooms
- Penn Medicine's first Owner Controlled Insurance Program (OCIP) in more than a quarter century resulted in insurance costs of 40% less than if the contractors provided the insurance themselves, translating into \$9.6 million in savings to-date
- Penn Medicine's first project using the Integrated Project Delivery (IPD) model; one of the largest IPD projects on the East Coast



As home of the nation's first hospital and first school of medicine, for more than 250 years Penn Medicine has been at the forefront of healthcare innovation. The groundbreaking Pavilion project is yet another example of Penn Medicine reimagining healthcare delivery by building a dynamic facility certain to be cutting-edge for decades to come.

Proactive Safety from the Start

The Pavilion will provide lifesaving medical care for the foreseeable future. However, Penn Medicine's focus on saving lives doesn't start when the doors open: Worker safety has been a focus of all construction operations at the jobsite. The CM implemented a proactive safety management system that encompasses all workers on-site, from senior management to field employees. The entire PennFIRST team is actively engaged in the safety process and addresses any observed issues on a daily basis, with periodic meetings to discuss challenges in particular work areas.

This safety management program starts with an initial safety orientation that establishes consistent standards for every new hire on the project. From there, pre-planning activities identify predictable and existing hazards for all major work activities. The CM and key trade subcontractors ensure that housekeeping is maintained throughout the project, which is no small feat on a project of this scale. The CM continuously stressed leadership from team members and key trade subcontractors, who stepped up by holding daily pre-task plan (PTP) meetings, weekly toolbox talks and specialized training for certain tasks. Site management encourages a constant feedback stream from workers on-site about safety.

Graham has an ongoing weekly safety presence on-site, working with the CM's team, key trade subcontractors and Penn Medicine representatives to ensure the project safety plan is being actively implemented. Open lines of communication set this system up for success, with any safety issues discussed immediately between Graham, the CM, Penn Medicine and the relevant subcontractors.

OCIP & Strategic Claims Management

Graham negotiated an Owner Controlled Insurance Program (OCIP) that provided the broadest insurance coverage available in the marketplace for each of the participating contractors. Graham's reputation among carriers for rigorous risk management and safety programs allows us to secure extremely aggressive pricing on OCIPs: Carriers understand that our programs lead to better results, with lower claims frequency and severity.

Using an OCIP for the first time in a quarter century, Penn Medicine was able to exert maximum control over the quality and limits of insurance coverage, including General and Excess Liability and Workers' Compensation. As a result, project insurance costs to date are over \$9.6 million less than they would have been if the contractors each provided their own insurance. This represents a 40% savings for Penn Medicine versus the cost of each contractor providing their own insurance coverage for the project.

A key component that has enabled these savings is the sophisticated claims management strategy implemented for the Pavilion project, including a contractually mandated return-to-work program that requires contractors to return injured workers to the job site when they are medically cleared. As a result, the project's average lost time incident rate was more than 50% below the national benchmark.

Thanks to the tireless efforts of the entire PennFIRST team, the Pavilion will become a landmark facility for unsurpassed patient care, clinical collaboration, innovation and transformation, and will be fully integrated with Penn Medicine's world-renowned research capabilities.



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