



40 YEARS OF CII

CELEBRATING
40 YEARS OF
COLLABORATION

MISSION & VISION

THE MISSION OF CII is to provide a research and development platform to create and drive innovative solutions that tangibly improve business outcomes through an academically-based, disciplined approach.

CII ENVISIONS an efficient capital projects industry that builds predictable value for member organizations, society, and stakeholders. Leveraging new ideas, unique forms of collaboration, and knowledge across the capital project and facility lifecycle, CII provides unmatched advocacy for the built environment.

40

Years of CII

\$1.69M

In Research
Payments

16

New Publications

7

New Research
Projects

21

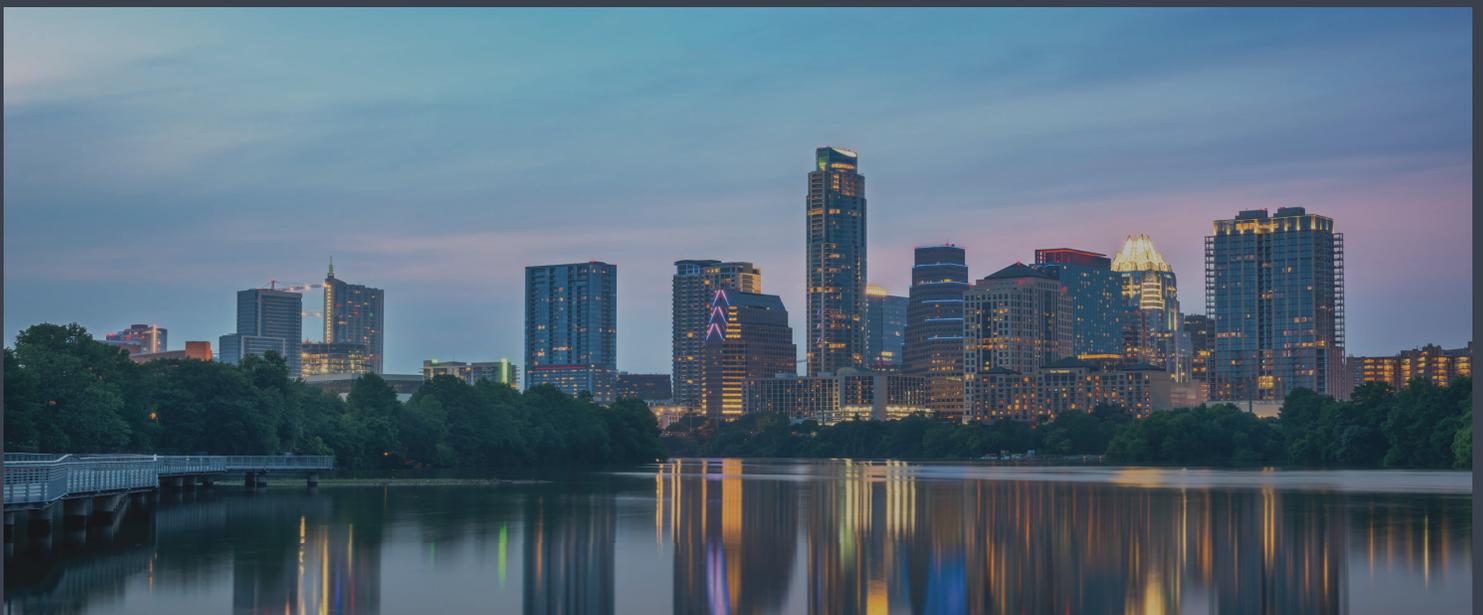
Ongoing Research
Projects

350+

Members in Ongoing
Research Teams

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LEADING THE FUTURE



Jamie Gerbrecht
Executive Director

Throughout 2023, we enjoyed celebrating CII's 40th anniversary and recognizing its founding companies that initiated four decades of CII value to members. This was another year filled with partnering of skilled members, talented academics, and dedicated staff to faithfully advance the mission of CII.

Key results of our collaborative "Partners in Progress" approach included the following highlights:

- **Research & Development (R&D)** - Annual Conference presentations comprised six research teams; keynote speakers on safety and on energy trends; five other special topics; and 21 Innovation Showcase exhibitors. We also staffed and launched seven new CII research projects, with one focused on safety, and we continued progressing the work of research teams underway since 2022.
- **Board of Advisors (BOA)** - The BOA shared, further developed, and prioritized ideas for future projects, holding two "Ideation" exercises with outcomes supporting exciting R&D topics and initiatives.
- **New Website** - Incorporating member feedback, we developed and launched the new CII website featuring improved search and communication capabilities.
- **Data Warehouse** - The Federal Facilities Data Analytics Research and Applications Program completed development activities enhancing data collection, benchmarking, and assessment features of CII's Data Warehouse.
- **Implementation Champion Network** - The Deployment Committee re-energized this CII network for increasing effectiveness of deploying R&D outcomes.
- **Professional Development and Awards** - We continued delivering our esteemed CII Executive Leadership Program and Best Practices Course, and we recognized eight individuals with CII leadership and service awards.

Looking ahead in 2024, we plan to continue progressing CII performance across key topic areas listed above while also focusing on active marketing and communication to support membership retention, growth, and value. We will keep practicing diligent identification of member company priorities and careful stewardship of resources entrusted to CII. It is my absolute honor to now serve as CII's Executive Director as we proceed with "Building Tomorrow Together."



Paul Burroughs
CII Chair

During 2023, I had the privilege of working with a diverse and talented leadership team at CII. A foundation for the future was established with the hiring of key staff at CII including the Executive Director - Jamie Gerbrecht - and Director of Research and Operations - Daniel Oliveira. The results of this leadership are reflected in the financial stability of CII and visionary research that we are undertaking together.

Our industries are preparing for, or undergoing, unprecedented growth while we balance that with affordability for our customers and value for our shareholders, which is directly aligned with CII's Mission and Vision.

Safety continues to be a focus for CII members. Our combined Total Recordable Incident Rate (TRIR) makes us the best of the best when it comes to working safely, but we can always get better through our Safety Community for Business Advancement (CBA) and development and implementation of safety related research.

CII continues to play a key role in developing our people for the future. From participating in CBAs and Research Teams to attending the Executive Leadership Program, our people develop an understanding of best practices, an industry-wide perspective, and professional maturity to be leaders today and for the future.

Through CII, we continue to collaborate to solve the complex challenges of our industry and position our member organizations to take advantage of the bright future we have ahead of us. I look forward to seeing you at the 2024 CII Annual Conference in San Diego, where we will celebrate "Building Tomorrow Together"!



40 YEARS OF ENDURING VALUE

Based at The University of Texas at Austin, CII formed in 1983 when The Business Roundtable recommended creating an organization to take a leadership role in construction research. Today, CII is still the premier research and development platform for the global capital projects industry. Members from a range of industry segments and academia collaborate to continuously improve safety and other project performance dimensions. Even as companies have merged and names have evolved, many founding members remain active today - underscoring the enduring value of relevant research and the unique and productive partnership between academia and industry.

FOUNDING MEMBER COMPANIES

1983-2023



IT'S THE LATEST WAVE OF MEMBER-DRIVEN RESEARCH

produced through CII's annual ideation process. Every year, members generate, evaluate, and screen ideas to identify key opportunities for future research projects. CII has been refining the process for the past three years to produce a continuous flow of relevant topics aimed at driving a positive impact on the businesses of our member companies and advancing our industry.

RT - 390

**SUCCESSFUL AWP IMPLEMENTATION:
ESSENTIAL EXECUTION GUIDANCE**



DRIVE PRODUCTIVITY THROUGHOUT YOUR PROJECT

Adopt and advance your Advanced Work Packaging process and scale it to the full enterprise with practical strategies and realistic steps. This team provides **detailed guidance and a timeline to implement AWP more effectively and efficiently** throughout the project life cycle. By project phase, through process and implementation steps, roles, and organization considerations, and using current tools, technology, and proactive data management, we gain visibility by capturing critical information needed to manage a successful project.

RT - 391

**DEFINING OPPORTUNITIES TO LEVERAGE
ARTIFICIAL INTELLIGENCE, MACHINE LEARNING,
AND DATA ANALYTICS APPLICATIONS FOR AWP**



IAWP: BETTER, FASTER, STRONGER

Harnessing the experience and subject matter expertise of more than 200 industry professionals, this research team offers a portfolio of new ways to intelligently supercharge AWP and improve project delivery. Using Design Thinking, the team identified opportunities for using artificial intelligence, machine learning, and data analytics that serve as a **roadmap for organizations investing in AWP analytics and software solutions**. Seizing these opportunities supports the safe, efficient, and cost-effective delivery of capital projects.

RT - 394

**PURSUE CAPITAL
EFFICIENCY**



BUILD THE RIGHT PROJECTS RIGHT

Choosing the right combination of projects, expanding existing assets, and executing projects well could save an estimated \$1 trillion a year globally in infrastructure alone. That's a big opportunity among many that the research team investigated by looking for ways to better align business and project teams earlier in portfolio management to deliver capital efficiency and effectiveness - and great business results. Based on interviews, the team identified beneficial activities and successfully implemented practices to create a **structured, interactive tool for integrating business and project teams** during portfolio planning and project initiation.

DRIVING POSITIVE IMPACTS

CII is again delivering breakthrough research designed to make a positive impact. Diverse teams from throughout our industry combined expertise and academic rigor to investigate topics ranging from artificial intelligence and AWP execution, to capital efficiency, industrial modularization, maintaining resilience, and mental health. They developed smart strategies, practical tools, roadmaps, and resources members can access easily to add value to their businesses.

RT - 396

BUSINESS CASE ANALYSIS GUIDE FOR INDUSTRIAL MODULARIZATION



DECIDE EARLY TO SAVE TIME, MONEY

Planned and executed well, industrial modularization can save 12% on schedule and 19% on cost. But many still aren't taking advantage of this proven strategy, even with rising pressures from compressed timelines, evaporating skilled craft labor, and environmental regulations. This research team builds on the fundamentals of RT-283 to overcome barriers to adoption and address new and emerging drivers such as environmental, social, and governance factors. Five new solutions include easy-to-use guides and detailed assessment tools to build the business case, design early, and plan and execute a successful, beneficial modularization strategy for your project.

ESTIMATED SAVINGS FROM INDUSTRIAL MODULARIZATION

RT - 400

RECOGNIZING AND RETAINING BENEFICIAL CHANGES FROM THE PANDEMIC ON THE WORKFORCE



BUILDING AND MAINTAINING RESILIENCE

The COVID-19 pandemic pushed our labor-intensive construction industry to find creative ways to survive. By analyzing what worked well and why, this research team developed a guide to help industry leaders adopt practices – from flexibility and remote work to increased technology use – that improve innovation, economic efficiency, and sustainability while building resilience for whatever the future brings.

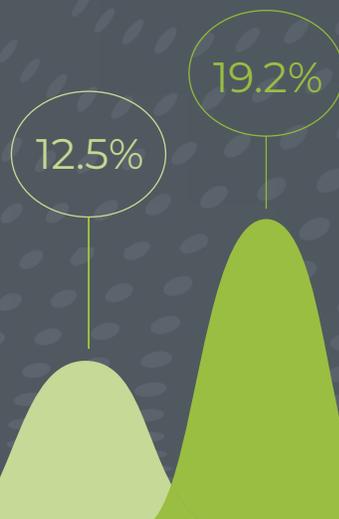
RT - 401

UNDERSTANDING THE MENTAL HEALTH CRISIS IN THE CONSTRUCTION INDUSTRY



ADDRESSING MENTAL HEALTH IS SERIOUS BUSINESS

CII and the Construction Safety Research Alliance launched a joint research project to better understand mental health in the construction industry. Our industry's suicide rate is five times higher in North America than global rates. It has a higher rate of alcohol, opioid and substance misuse, abuse, and dependence than the general population. This team reviewed medical literature, collected construction worker data, and documented practitioner experiences. They summarized key knowledge in a practical guide to mental health for the construction professional that includes what we can, should, and shouldn't do.



FIND CII ONLINE:

FOR DETAILS ABOUT ONGOING CII RESEARCH set to report out in 2024, 2025, and 2026, visit: [construction-institute.org/search](https://www.construction-institute.org/search)

TO GET INVOLVED in CII research, contact kldelaney@cii.utexas.edu

FIND FULL RESEARCH PUBLICATIONS by entering the RT number in the search feature on [construction-institute.org](https://www.construction-institute.org)

WHAT'S NEW

CII IN ACTION

CII helps members put research to work through online and in-person collaboration, as well as self-paced Online Education courses and Registered Education Provider (REP) training events that offer professional development hour credit. In 2023:

- CII revitalized its **Implementation Champion Network**, starting with an inaugural forum for new, seasoned, and potential Implementation Champions to ask questions, gain new insights, and share lessons learned. Implementation Champions actively promote and use CII Best Practices and research findings within their own organizations to drive the most value from their resources.
- Members engaged in more than 75 meetings hosted by CII's various Communities for Business Advancement to share expert knowledge and take deep dives into a wide range of specific topics – from AWP, AI, and data analytics to safety and risk management. CII also offered numerous webinars throughout 2023, hosting more than 7700 registrants and risk management.



▲ **25%**
INCREASE IN
ENROLLMENT

We have had a 25% increase in graduate students from universities around the country enrolled in CII's Best Practices Course. This is a semester-long graduate-level course taught by industry subject matter experts from top CII member companies covering all 17 CII Best Practices and offering real-world, proven construction management practices.

PROGRESS WITH DATA AND INNOVATION

The **CII Data Warehouse** reached more members and delivered improved analytics to the CII community in 2023. With a significant development provided by the generous funding of the Federal Facilities Data Analytics Research and Applications Program, the new Dashboard is available to all members who have trained Benchmarking Associates. This is key to unlocking benchmarking success for your organization as it includes easy-to-read dials that represent portfolio performance on cost and schedule, delivery methods used, industries served, and more.

The Dashboard is comprised of three different views with increasing level of resolution. The opening Dashboard view summarizes all validated projects in the Data Warehouse. Next, the Lab Level Dashboard views summarize projects by each lab, including the Industry Lab and Federal Facilities Lab. Finally - but perhaps most importantly - My Dashboard view summarizes projects submitted by your organization and includes Best Practice assessments and visual indicators of your own organization's projects and their performance summaries.

Participating companies that utilize the CII Data Warehouse regard it as a benchmarking and performance assessment tool to support streamlined data analysis, informed decision-making, and enhanced collaboration. Federal Facilities participants noted that the Data Warehouse enabled a data-activated culture that enhanced their capacity for mission success. CII invites all members to get involved by designating personnel to attend a virtual Benchmarking Associates Training event and staying engaged by joining the Data Analytics Community for Business Advancement.



Data Warehouse Dashboard Sample

CII TECHNOLOGY COMMITTEE

Guiding the industry's technology transition

Active Research

RT-403: Defining a Path for the Digital Transformation of the Capital Projects Industry

RT-415: International Data Standards Landscape and Guideline for Capital Projects Industry

Subcommittees

Information Management – addressing the application of technology to improve project and business performance

Horizon360 – explores emerging technology solutions and innovative practices for application in the projects industry

Innovation Showcase – curates innovation showcase, increasing awareness of novel technical solutions

Interoperability – supporting information exchange for capital projects, developing practices and guidelines

→ sponsors the AWP Data Requirements Joint Working Group (publication SR19-1, 2023)



WHAT'S NEXT **IMAGINING THE FUTURE**

With a fresh focus on what's possible, this year's CII Innovation Showcase at our Annual Conference featured dynamic new technologies in thought-provoking demonstrations, experimental solutions, and collaborative approaches to solving problems.



Attendees try on the new Hilti Exoskeleton designed to help relieve shoulder and neck fatigue when working above shoulder level.



To improve safety and productivity a CII member demonstrates a robotic dog that can handle labor-intensive tasks such as progress scans, as-built analysis, and quality checks for improving safety and productivity.



More than **450** industry experts, academics, and professionals from **18** countries attended this year's CII Annual Conference in San Antonio to learn, discuss, present, and network with peers. Special topics included safety, energy trends, decarbonization, and economic outlook.

2023 CII AWARD RECIPIENTS

Carroll H. Dunn Award of Excellence

For significant contributions in the construction industry that demonstrate leadership to a high degree of dedication to improving cost, scheduling, quality, and safety of the capital facilities process.



Mansour Saad Al-Shehri

Vice President of Downstream Project Management, Saudi Aramco

Mansour is a respected leader who has delivered successful mega and giga-projects worldwide. His dedication to empowering and inspiring teams, developing leaders, and advancing innovative practices has improved the safety, sustainability, and performance of operations in the oil and gas industry.

Richard L. Tucker Leadership & Service Award

For an active CII member who furthers the mission of CII through leadership, mentoring/advocating, and ambassadorship.



Aivars Krumins

Global Vice President – Downstream, McDermott International Inc.

Aivars is a true CII champion, advocate, and dedicated leader. As an industry executive, he has spent more than 20 years serving on the CII Board of Advisors, leading committees and research teams. Aivars has been very successful at promoting and implementing CII resources internally.

James B. Porter, Jr. Award for Technology Leadership

Recipients show significant technology contributions to the construction industry while demonstrating personal dedication to the development and advancement of these technologies within capital projects.



Keith Churchill

Chief Innovation Officer, Bechtel

Keith applies new ideas and technologies to enhance safety and quality to reduce costs in the heavy industrial sector and increase productivity. Keith draws on his extensive experience, including leading design of the Bechtel Welding and Applied Technology Center. He has been active with CII research teams and the Technology Committee.



Outstanding Volunteer

Brian Welsey

As a leader in CII's funded studies, who is active on several CII research teams and the CII Board of Advisors, Brian has also been committed for years to the vital review of CII publications.



Outstanding Academic

Dr. Robert Leicht

With deep expertise in Building Information Modeling platforms, an interest in new delivery models and the impact of technology integration on project success, Robert has led several major CII research projects and served on CII's Academic and Funded Studies Committees.



Outstanding Student

Dr. Vassilini Demetracopolou

Vassilina was instrumental to the RT-390 team's success, organizing and leading regular progress updates to the Funded Studies Committee, guiding rehearsals, and helping present team findings at the 2023 CII Annual Conference.



Thank you to the 2023 award recipients for their hard work, contributions, and dedication to CII

FINANCIAL REPORT 2023

REVENUES

Contracts & Grants	\$688,000
Gifts & Contributions	25,000
Member Dues	4,267,825
Events / Meetings	779,795
Education / Training	748,370
Licensing and Commercialization	113,427
Administrative Services (Subsidiaries)	60,000
TOTAL REVENUES	\$6,682,417

EXPENSES

Research	1,695,623
Development	927,382
Marketing	34,112
Events / Meetings	746,970
Education / Training	235,906
Administrative Services	271,939
Staff Salary and Fringe Benefit	2,090,089
Travel	67,275
Overhead - Membership	27,767
Overhead - Other Funding	182,811
Director's Discretionary	-
TOTAL EXPENSES	\$6,279,874

CHANGE IN AVAILABLE FUNDS BALANCE	402,543
BEGINNING AVAILABLE FUNDS BALANCE	4,337,645
ENDING AVAILABLE FUNDS BALANCE	\$4,740,189

COMPOSITION OF AVAILABLE FUNDS

Required reserves	\$1,825,000
Director's discretionary	100,000
CCIS	76,771
Other available funds	2,738,418
ENDING AVAILABLE FUNDS BALANCE	\$4,740,189

INDEPENDENT ACCOUNTANT'S REPORT

Dunagan★Jack LLP Certified Public Accountants

INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

To the Management and Board of Advisors
Construction Industry Institute
Cockrell School of Engineering
The University of Texas at Austin

We have performed the procedures enumerated below on Member Dues and Available Funds reported in Construction Industry Institute's (Institute) 2023 financial report. The Institute's management is responsible for Member Dues and Available Funds reported in the 2023 financial report.

The Institute's management has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of reporting to the Board of Advisors. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures and associated findings are as follows:

- We obtained from management the 2023 financial report to be included in the annual report.
- We obtained from management certain financial reports from *DEFINE, The University of Texas at Austin's software that accounts for the Institute's financial transactions.
- We obtained from management the QuickBooks company file that the Institute uses to supplement *DEFINE for financial reporting purposes.
- We have provided below a reconciliation of the Institute's "member dues" revenues from membership payments reported in *DEFINE to the 2023 financial report.
- We have provided below a reconciliation of the Institute's ending "available funds" balances from *DEFINE to the 2023 financial report.

Reconciliation of Member Dues per *DEFINE to the 2023 financial report:

Membership payments received per *DEFINE	\$ 4,107,492
Reconciling items:	
Add: 2023 member dues accrued (receivable)	480,300
Add: 2023 member dues received (deferred) in prior year	375,845
Less: 2022 member dues accrued in prior year	(388,900)
Less: 2024 member dues deferred	(356,400)
Add: 2023 Globalization Affiliate fees collected	48,788
Add: Bank fees netted with payments	700
Unreconciled difference	<u>-</u>
Member dues reported in financial report	<u>\$ 4,267,825</u>

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www.dunaganjack.com

INDEPENDENT ACCOUNTANT'S REPORT - *continued*

Reconciliation of Available Funds per *DEFINE to the 2023 financial report:

Free balances per *DEFINE:	\$ 3,607,664
Add: Encumbered funds (not yet spent)	<u>1,352,691</u>
Adjusted free balances per *DEFINE:	4,960,355
Reconciling items:	
Add: 2023 member dues accrued (receivable)	480,300
Add: Cockrell O/H rebate (receivable)	64,279
Add: PIP support accrued (receivable)	60,000
Add: Research sponsorships accrued (receivable)	141,000
Add: Other accounts receivable	52,820
Less: 2024 member dues deferred	(356,400)
Less: 2024 Executive Leadership Program revenues deferred	(136,300)
Less: Donor-restricted contribution deferred	(100,000)
Less: Accounts payable and accrued expenses	(324,309)
Less: CCIS Funds	(76,771)
Less: OS2 IAP Funds	(24,785)
Unreconciled difference	<u>-</u>
Ending available funds balance reported in financial report	<u>\$ 4,740,189</u>

We were engaged by Construction Industry Institute to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an audit or review, the objective of which would be the expression of an opinion or conclusion, respectively, on Member Dues and Available Funds reported in the Institute's 2023 financial report. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of Construction Industry Institute and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

This report is intended solely for the information and use of Management and the Board of Advisors of the Institute and is not intended to be and should not be used by anyone other than these specified parties.



Austin, Texas
February 17, 2024



OUR TEAM



JAMIE GERBRECHT
Executive Director



WILLIAM O'BRIAN
Associate Director
for Technology

HEATHER BEAL
KRISTI DELANEY
FAHIMEH FOROUGH
PIPPER RAMSEY
DEBBIE SAMILPA



DANIEL OLIVEIRA
Director of Research
and Operations



DEBORAH DEGEZELLE
Manager of
Data Warehouse

JANET WEST
BOB WIBLE

Research Assistants
YU-CHEN (GABRIELLE) LEE
NATCHA LUECHAKIETTISAK



JENNIFER BIEN
Associate Director
for Membership and
Communications



HONG ZHAO
Manager of
Financial Services

VISHAL PORWAL



ERIKA CORBELL
Associate Director
for Deployment



NURIA AYALA
Manager of
Information Systems

CII STAFF SERVICE RECOGNITION

A special thank you to our staff member who retired in 2023 for many years of significant contributions to The University of Texas and CII:

MICHAEL BURNS, 34 years



is a consortium of nearly 140 leading owners, engineering-contractor, supplier and related professional firms from both the public and private arenas. These organizations have joined together to enhance the business effectiveness and sustainability of the capital facility lifecycle through CII research, related initiatives, and industry cooperative. CII is unique as the research and development forum for the engineering and construction industry.

CII

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 [construction-institute.org](https://www.construction-institute.org)

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