



Rhode Island School of Design

FY23 ROPA+ Analysis Presentation

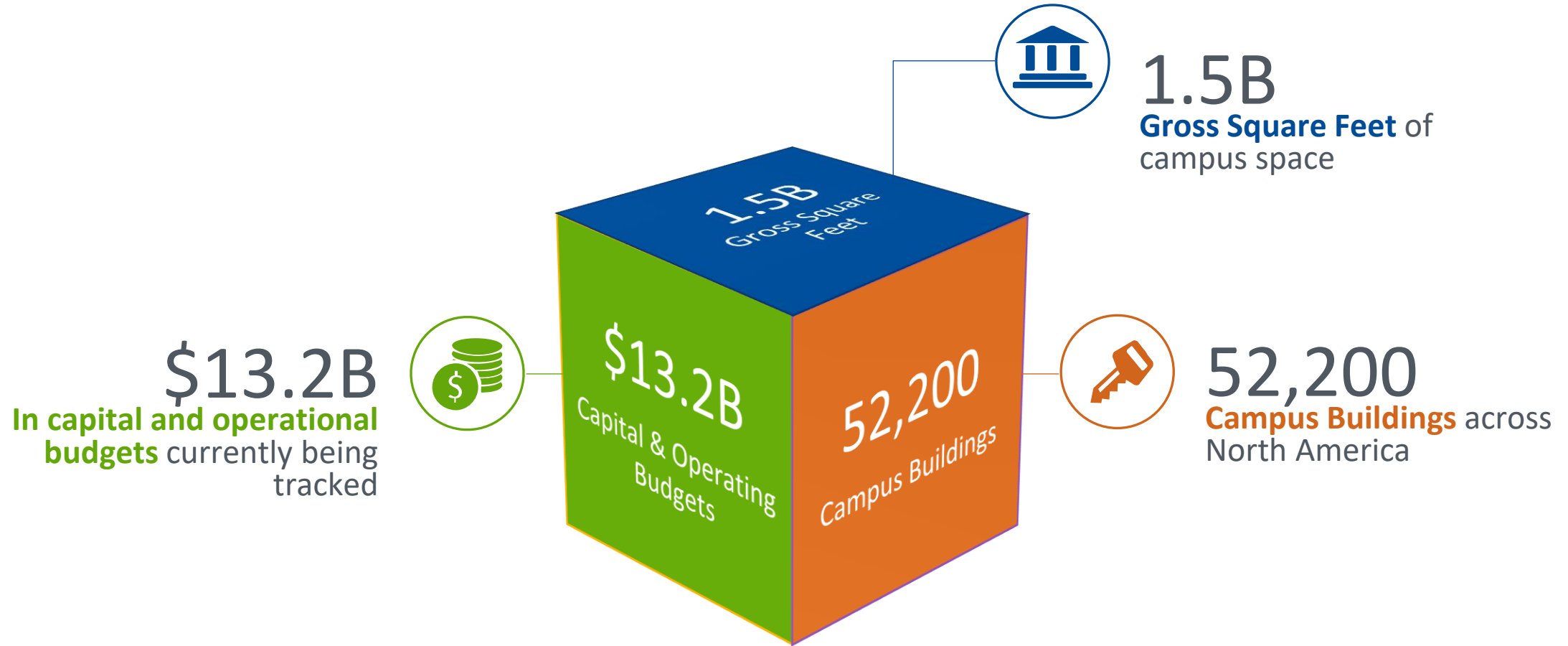
Presented by: Mike O'Neill & Pranim Padhan

January 16, 2024

University of Southern
University of Southern Maine
University of St. Thomas
University of Tennessee, Knoxville
University of Texas - Austin
University of Texas at Dallas
University of Texas Health
University of Texas Rio Grande Valley
University of the Sciences in Philadelphia
University of Toledo
University of Vermont
University of Washington
University of West Florida
University of Wisconsin - Madison
WashU University
Virginia Commonwealth University
Wake Forest University
Washburn University
Washington State University
Washington State University - Tri-Cities Campus
Washington State University - Vancouver
Washington University in St. Louis
Wayne State University
Wellesley College
Wesleyan University
West Chester University
West Virginia Health Science Center
West Virginia University
Western Oregon University
Westfield State University
Widener University
Williams College
Worcester Polytechnic Institute
Worcester State University
Xavier University

Who is Gordian?

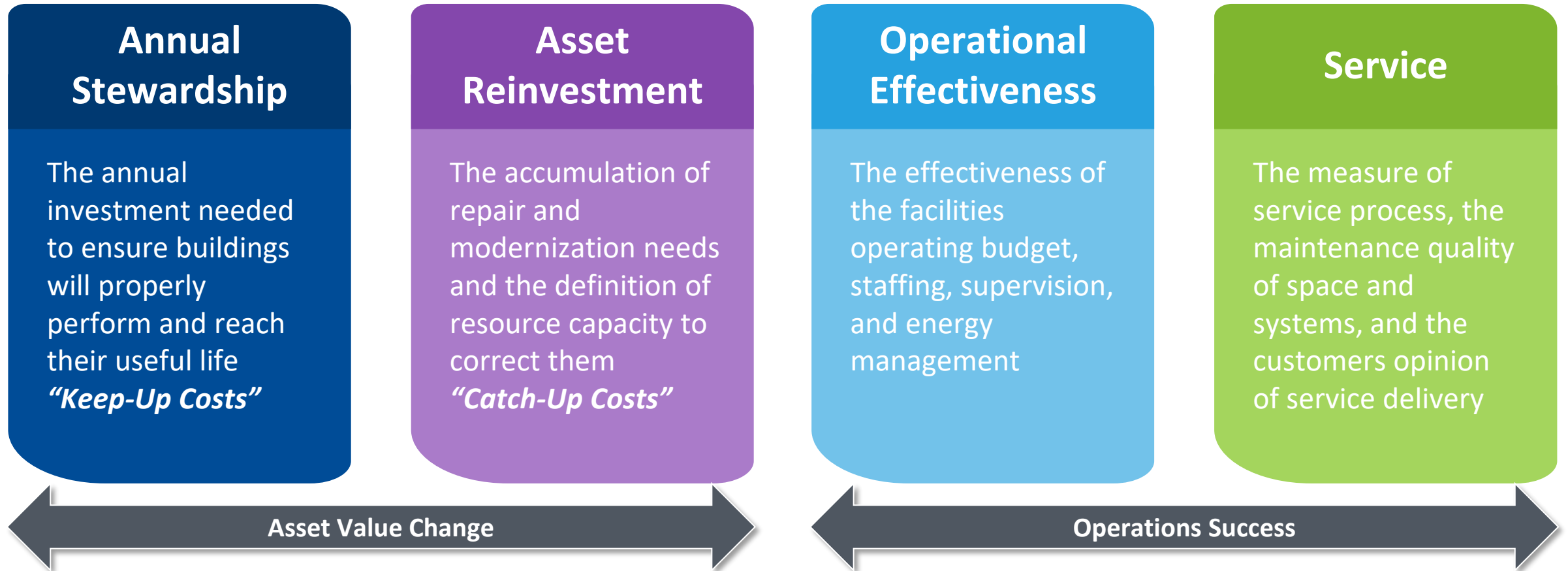
Owners of the largest verified facilities database in higher education



Gordian members serve **over 20%** of US College Enrollment

A Vocabulary for Measurement

At the core of the Return on Physical Assets (ROPA) process is the common vocabulary that enables more effective communication around key facilities issues



Rhode Island School of Design Facilities Peer Institutions

Institutions	Location
Bentley University	Waltham, MA
Brown University	Providence, RI
Emerson College	Boston, MA
Fitchburg State University	Fitchburg, MA
Massachusetts College of Art and Design	Boston, MA
Pratt Institute	Brooklyn, NY
Siena College	Loudonville, NY
Wesleyan University	Middletown, CT
Worcester State University	Worcester, MA



Comparative Considerations

Size, technical complexity, region, geographic location, and setting are all factors included in the selection of peer institutions

Space Profile



RISD Less “Busy” and Technically Complex Than Peers

Portfolio context drives both daily operational and long-term stewardship resource needs

Density Affects:



Staffing Levels

More space will require more staff to clean/maintain space to meet facility standards.



Material and Supplies

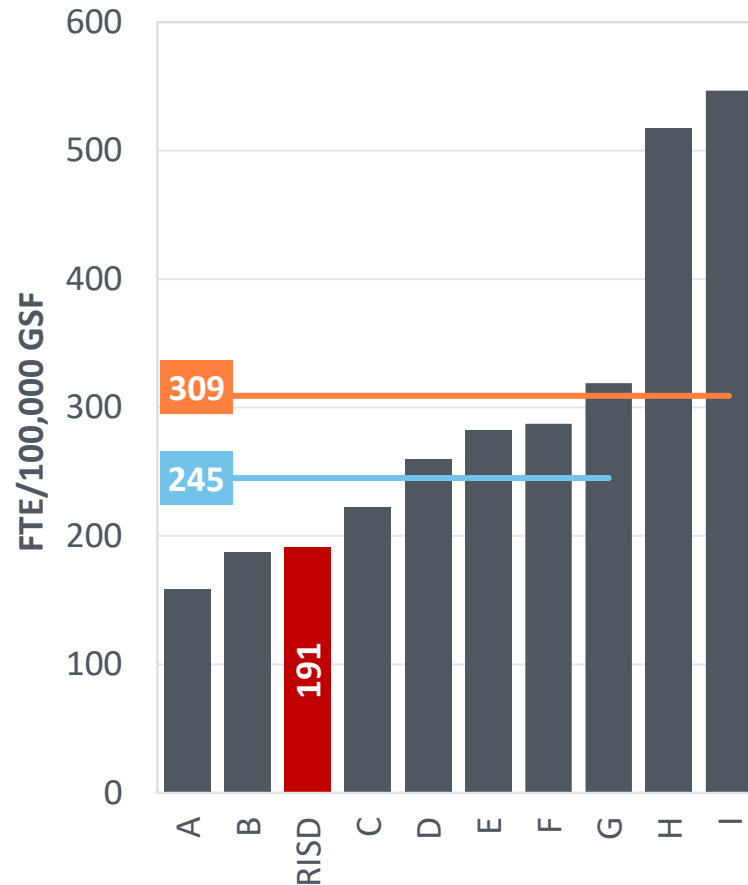
Material and supply demand influenced by how often the space is used.



Wear and Tear of Facilities

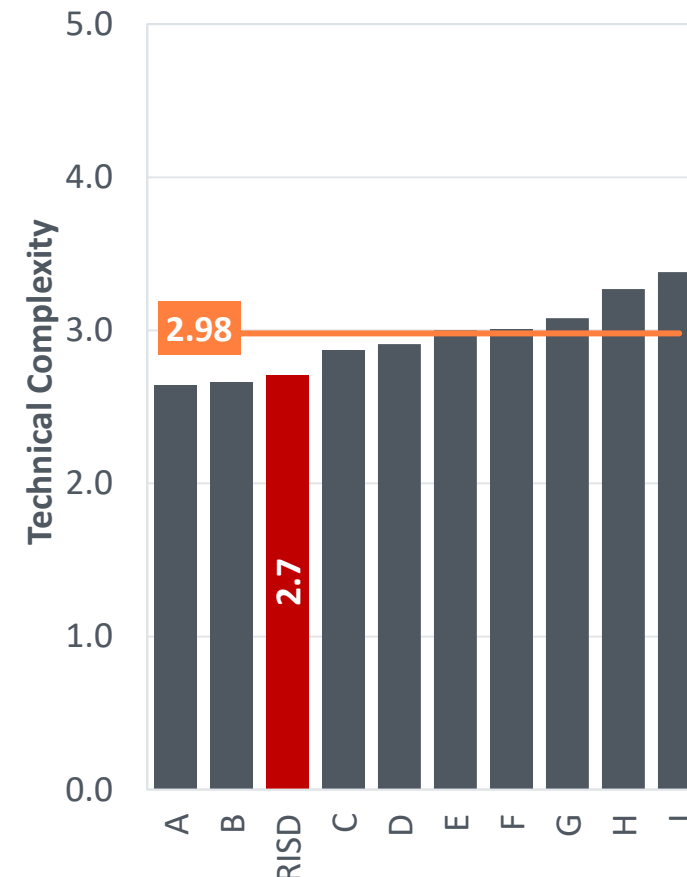
High traffic and space usage result in sooner lifecycle replacement.

Density Factor



Peer Average (309) Average w/o H & I (245)

Tech Rating



Peer Average (2.98)

Tech Rating Affects:



Staffing Demands

More complex systems will require higher skillsets to maintain.



Repair & Replacement Cost

Complex systems will require more capital investment to repair/replace.



Energy Consumption

Complex systems can be more energy intensive.

* Density does not include Continuing Education Students

RISD Has More Buildings Than Peers But Smaller in Size

Higher building intensity can lead to the need for more capital and operational resources

Building Size/Intensity Affects:



Repair & Replacement Cost

Replacing systems in larger buildings increases ROI.



Staffing Demands

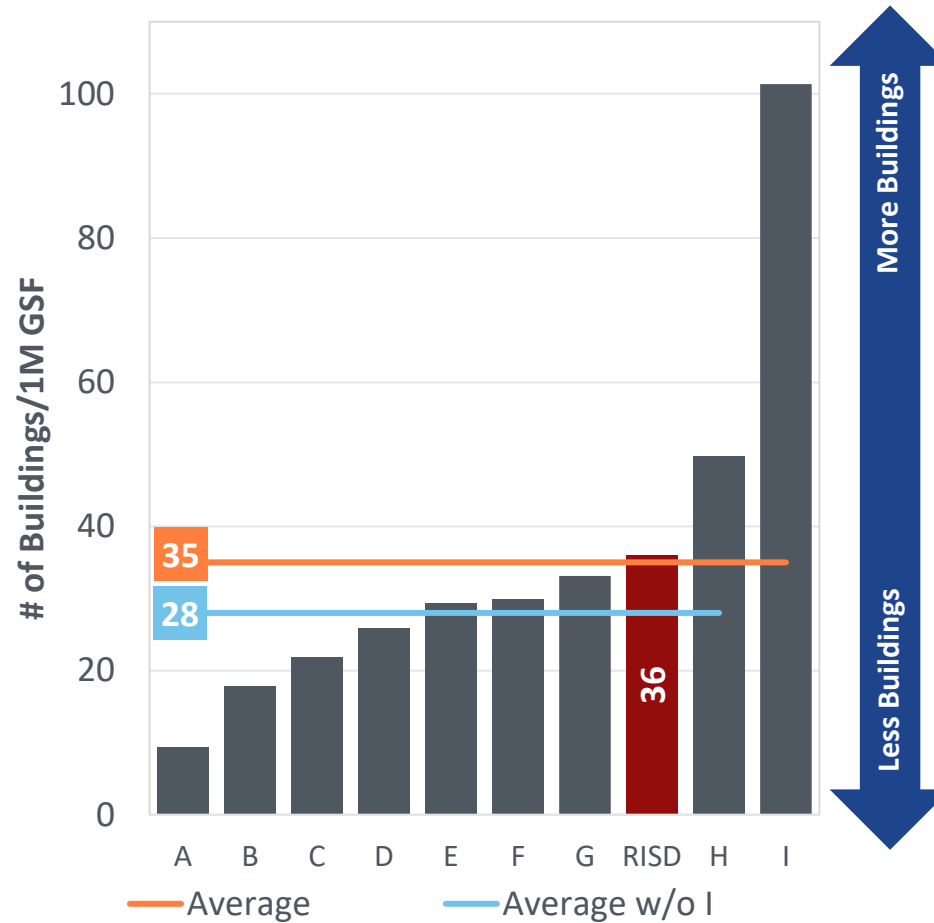
Additional time and effort required transitioning to multiple buildings.



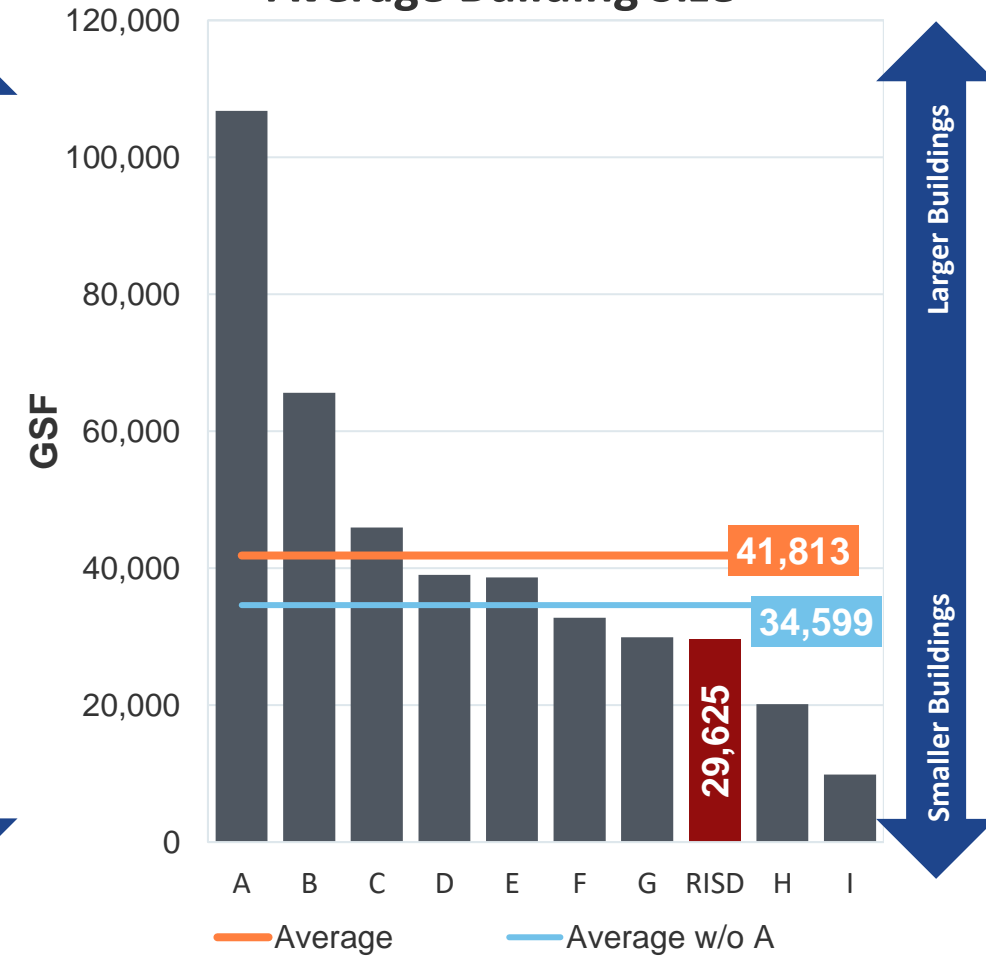
Energy Consumption

Economies of scale; larger buildings can be more energy efficient.

Building Intensity



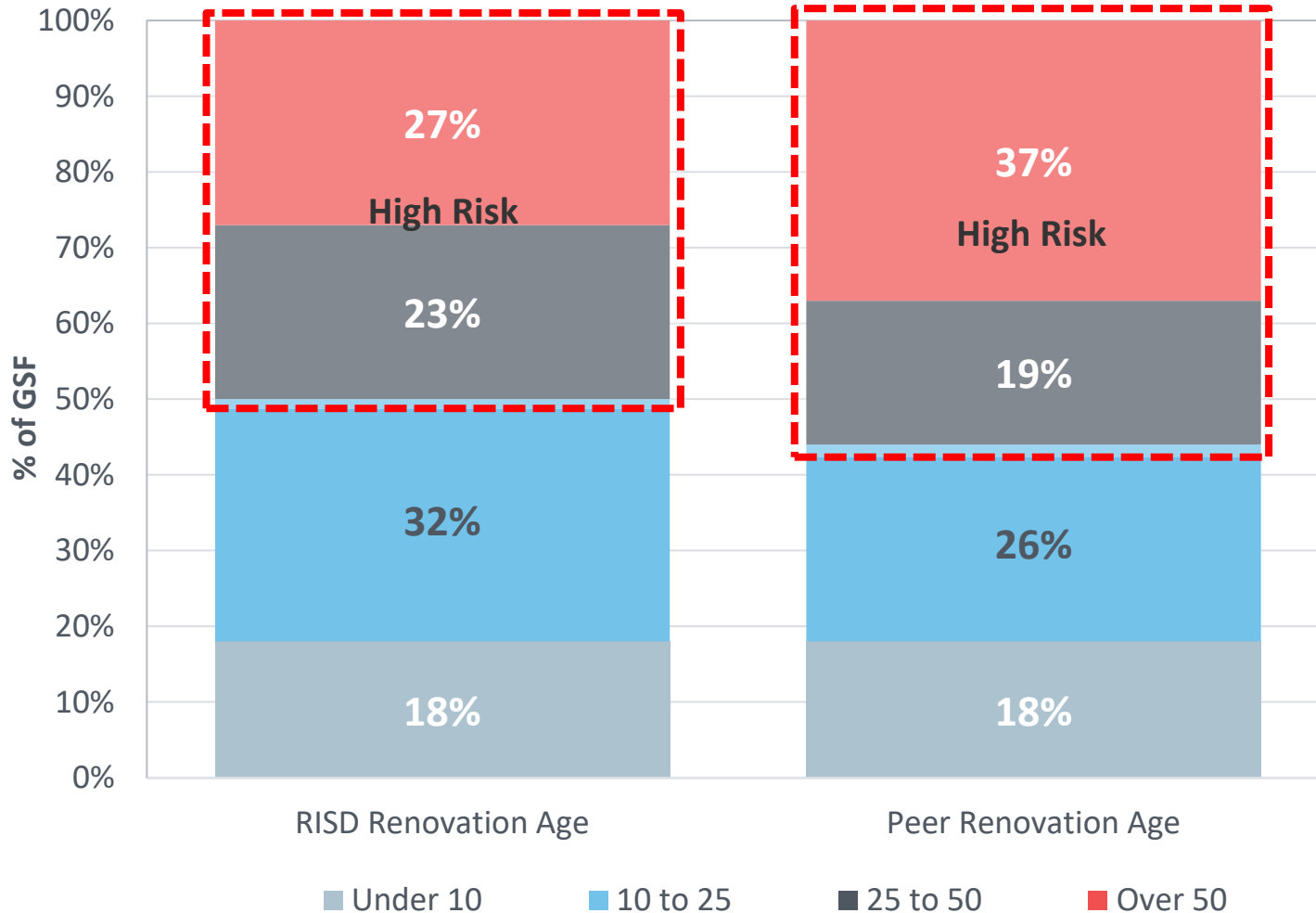
Average Building Size



Relatively Equal Age Distribution Provides Flexibility

RISD has a similar age and risk profile to Peers with half of the portfolio in High Risk

Campus Age by Category

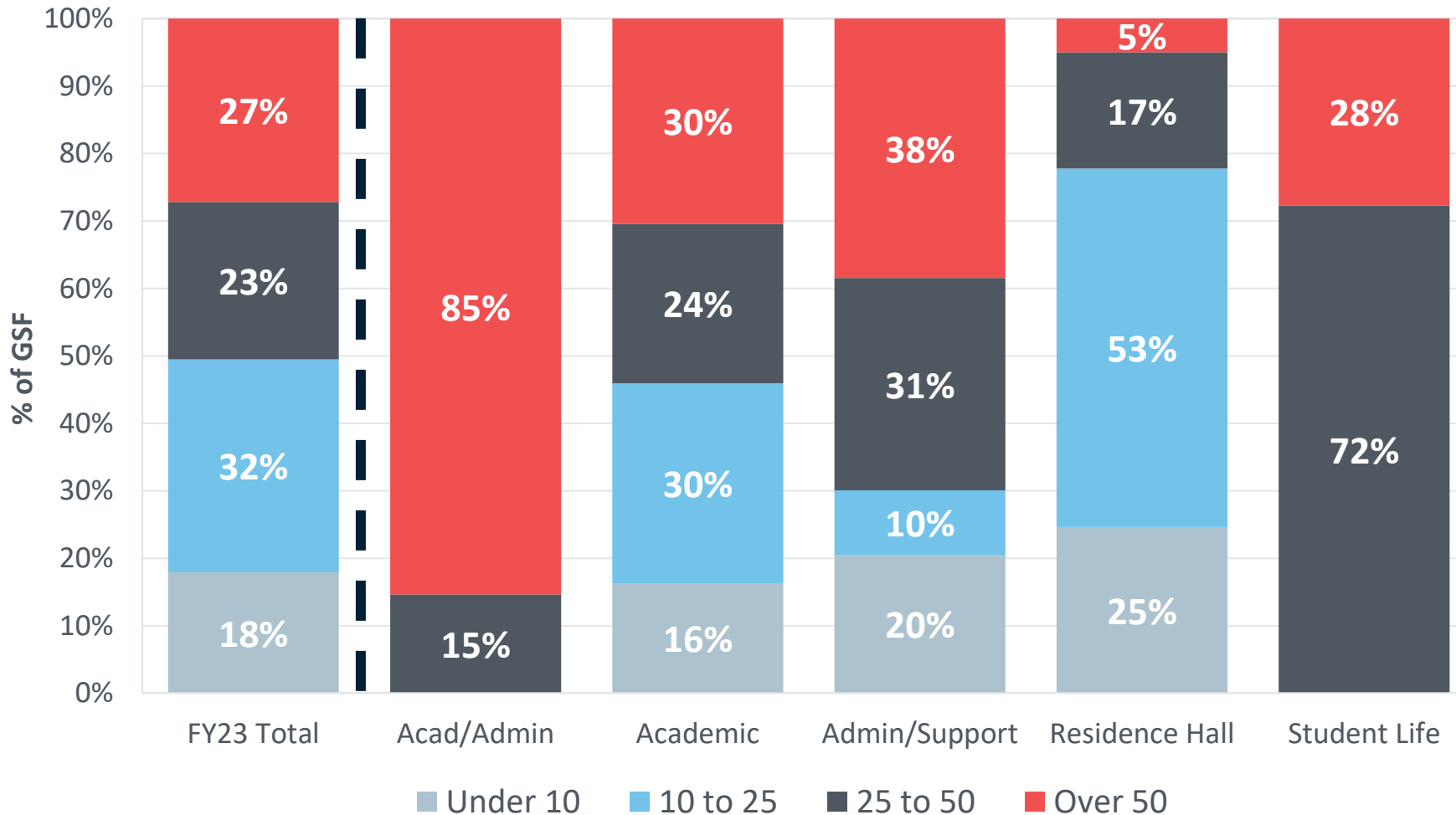


	Operational Demands:	Capital Risk:
Over 50	React as Needed: Issues in components past the end of their lifecycles will demand reactive maintenance.	Highest Risk: Life cycles of major components past due – end of building life cycle approaching.
25-50	Balance PM and Reactive Maintenances: Younger components still require PM	Higher Risk: Life Cycles coming due in core building components.
10-25	Aging components require reactive maintenance	Medium Risk: Lower cost space renewal updates needed.
Under 10	Focus on PM: Significant need for PM in young systems.	Low Risk: “Honeymoon” period – little need for capital reinvestment.

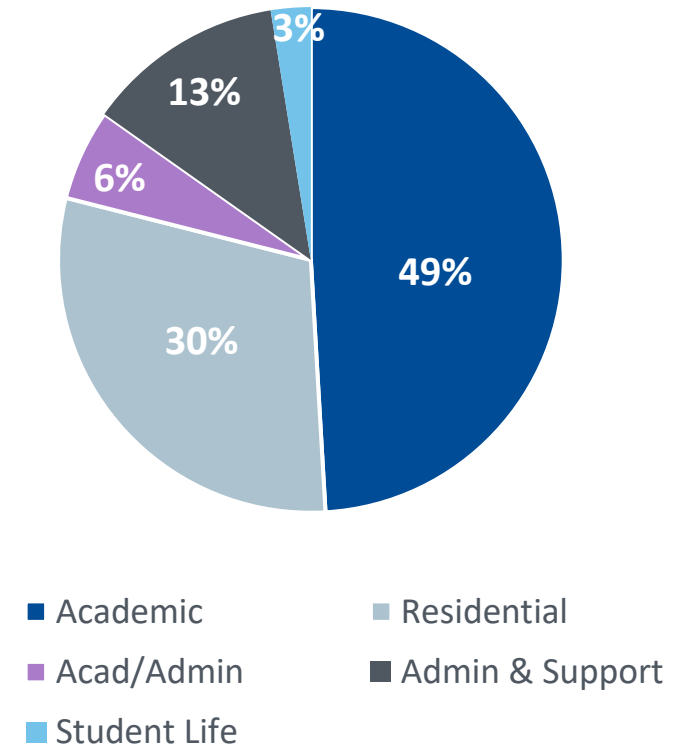
Segmenting Portfolio Helps Define Future Investment

Academic and Residence Hall space the bulk of portfolio; carrying the least amount of age risk

Function of Space by Renovation Age



RISD Square Footage By Function

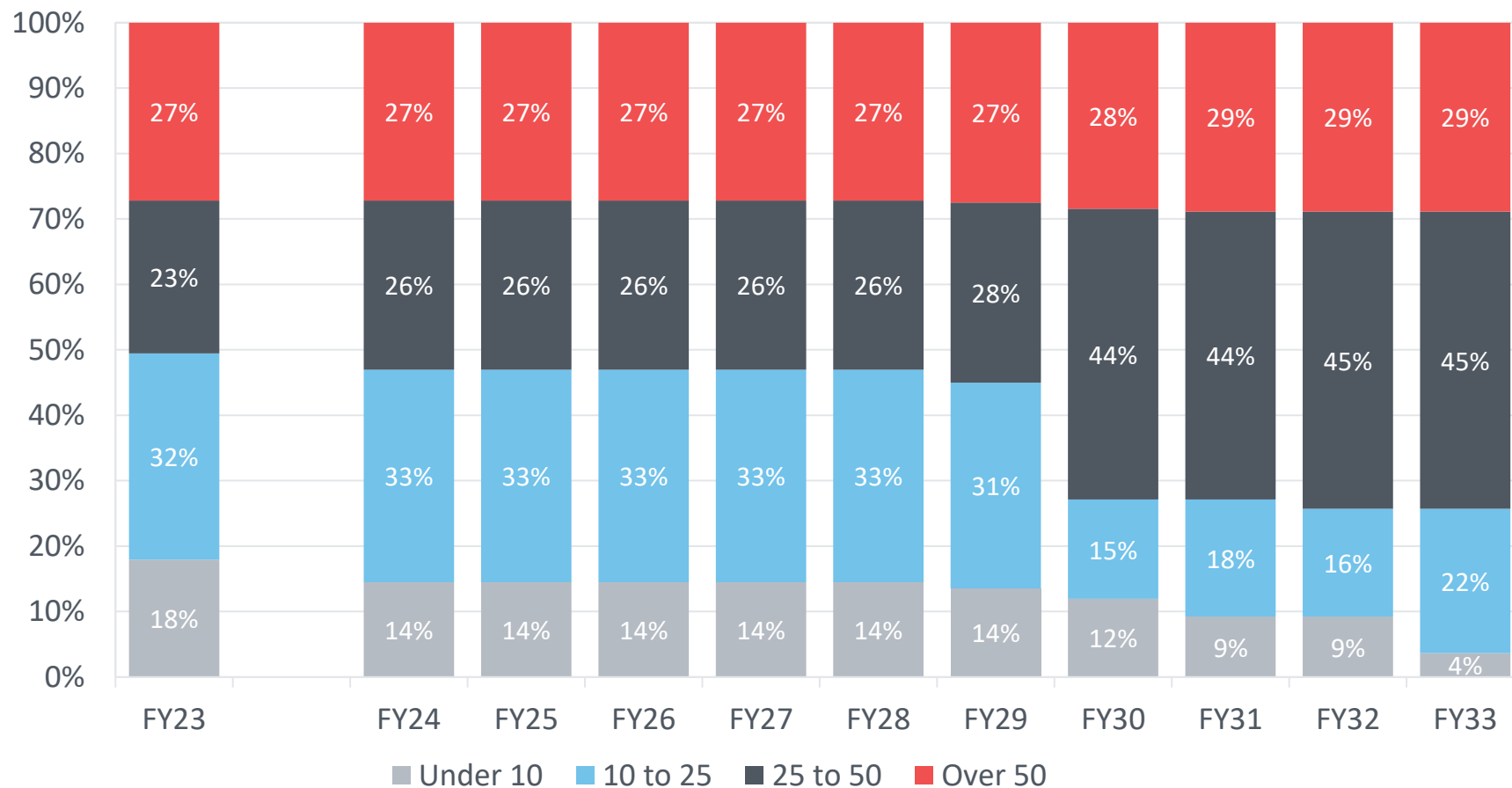




Strategic Investment Plan Needed to Address Shifting Age Profile

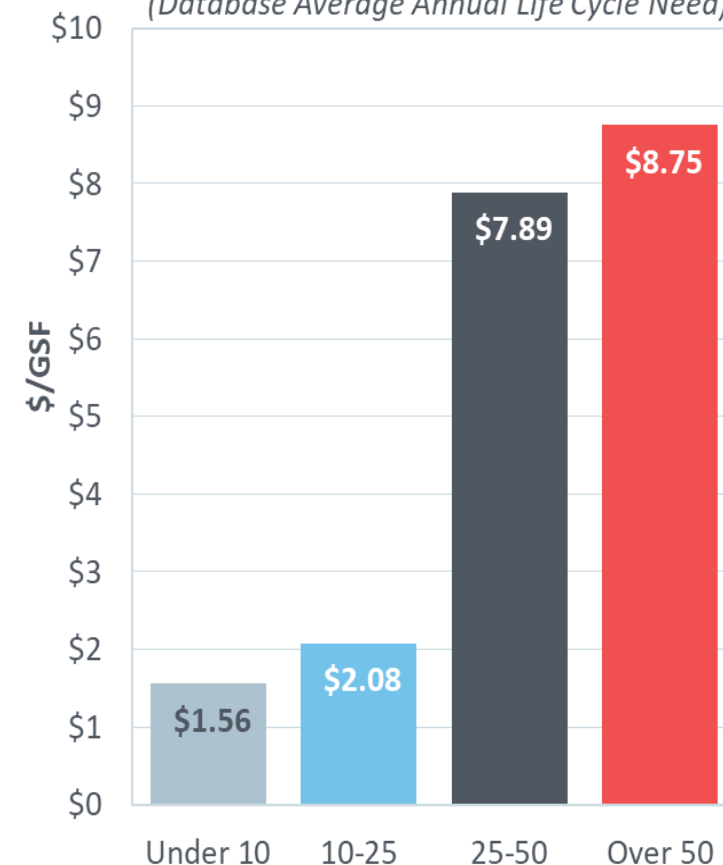
In 2030 almost 75% of the portfolio will be in High-Risk where large scale capital investment often needed

Renovation Age by Category



Capital Costs

(Database Average Annual Life Cycle Need)

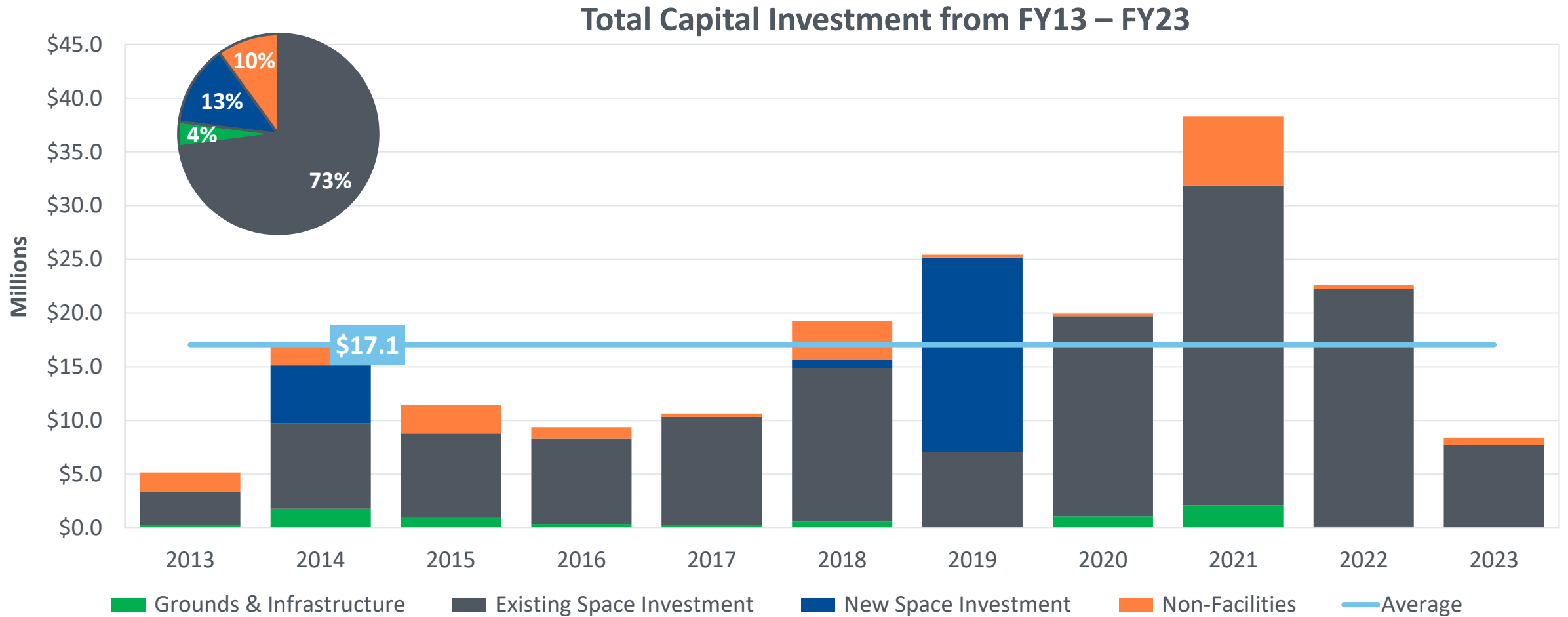


Capital Investment

The background features a dark blue color with several overlapping, semi-transparent geometric shapes. On the right side, there is a prominent zigzag pattern composed of thick, dark blue lines. The overall aesthetic is modern and professional.

Majority of Capital Investment Targeting Existing Space

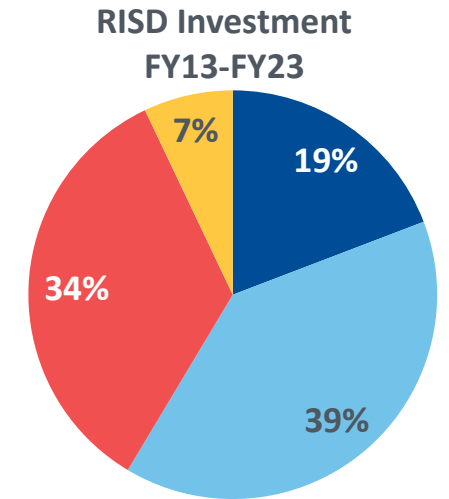
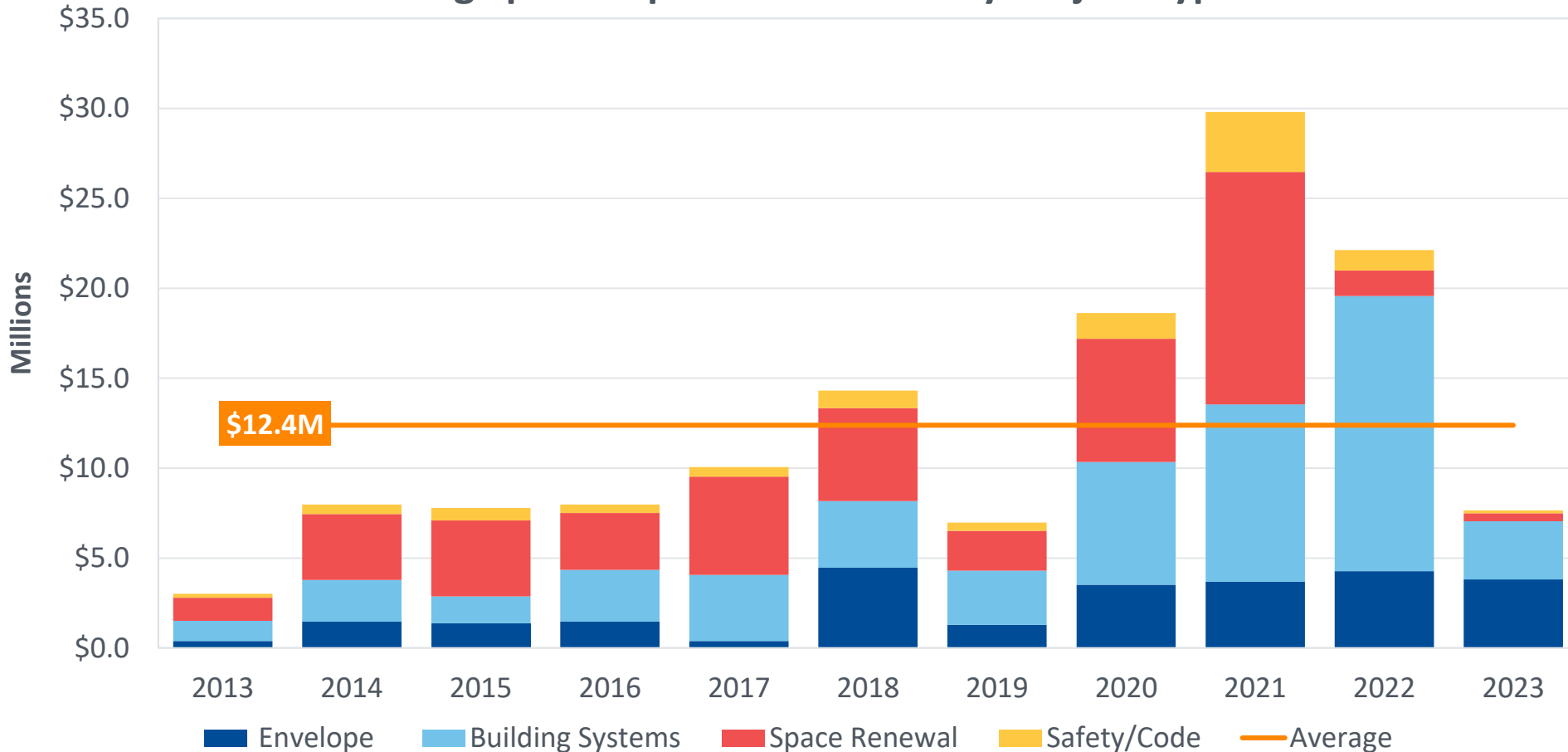
Total capital investment into Existing Space has averaged \$12.4M over the last 11 years



58% of Investment Focused on Mechanical/Envelope Projects

Investment lower but still targeting projects which have higher programmatic impacts and ROIs

Existing Space Capital Investment by Project Type from FY13 – FY23



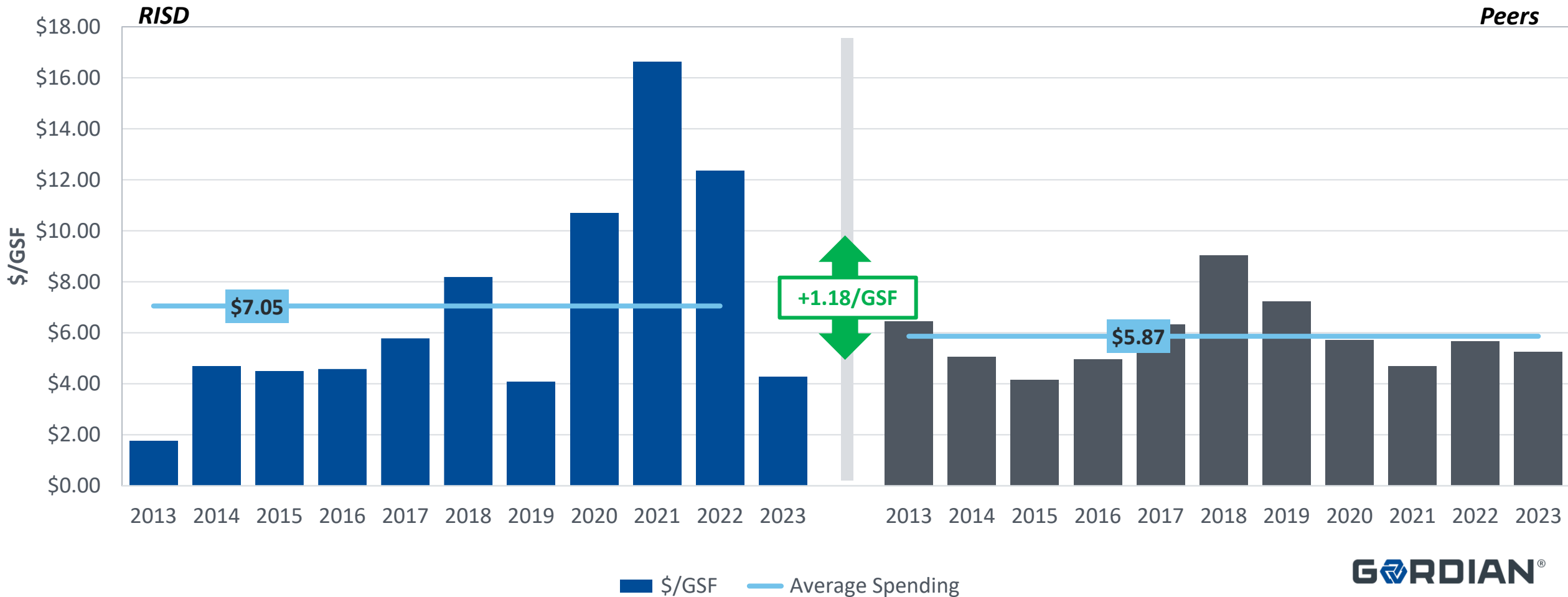
*Excludes Infrastructure, New Space and Non-Facilities Spending



Despite Decline in FY23 RISD Continues to Outpace Peers

RISD invested \$1.18/GSF (\$2.2M) more on average compared to peers into Existing Space

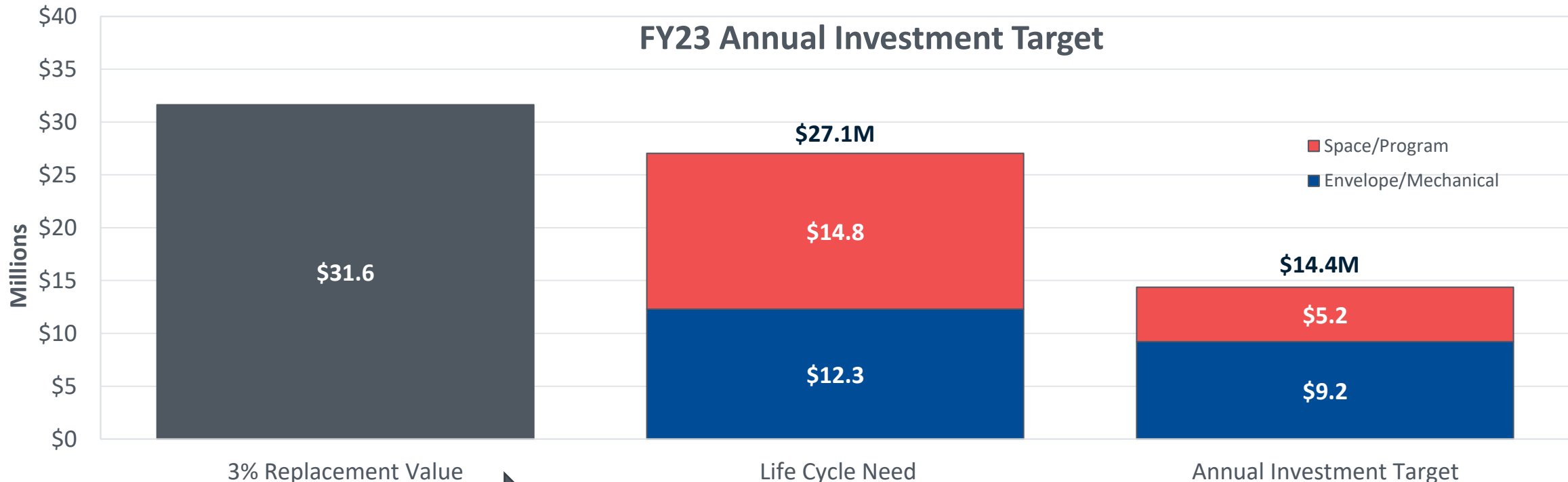
Capital Investment into Existing Space



Defining an Annual Investment Target

FY23 Annual Funding Target: \$14.4M

Replacement Value: \$1.05B



Standard Depreciation Model

The NACUBO standard takes 3% of the replacement value of every building on campus to estimate the amount needed to keep up with building lifecycles on an annual basis.



Gordian Budgeted Model

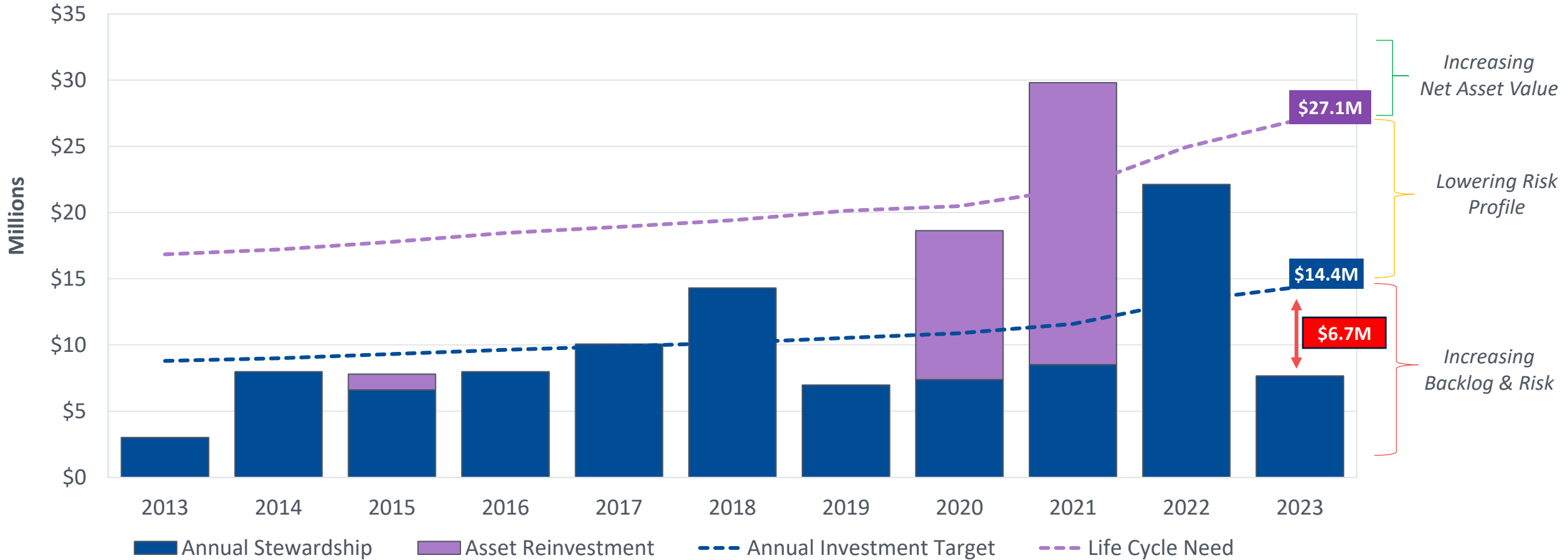
The Life Cycle Target shows the amount of dollars necessary to replace all building components at the completion of their useful life.

The Annual Investment Target discounts the lifecycle target to represent the annual minimum investment required to halt the increase of backlog.

Shortfall of \$6.7M to Target Added to Backlog in FY23

Funding above annual investment target enables Facilities to address backlog and lower risk profile

Total Capital Investment into Existing Space vs. Funding Target



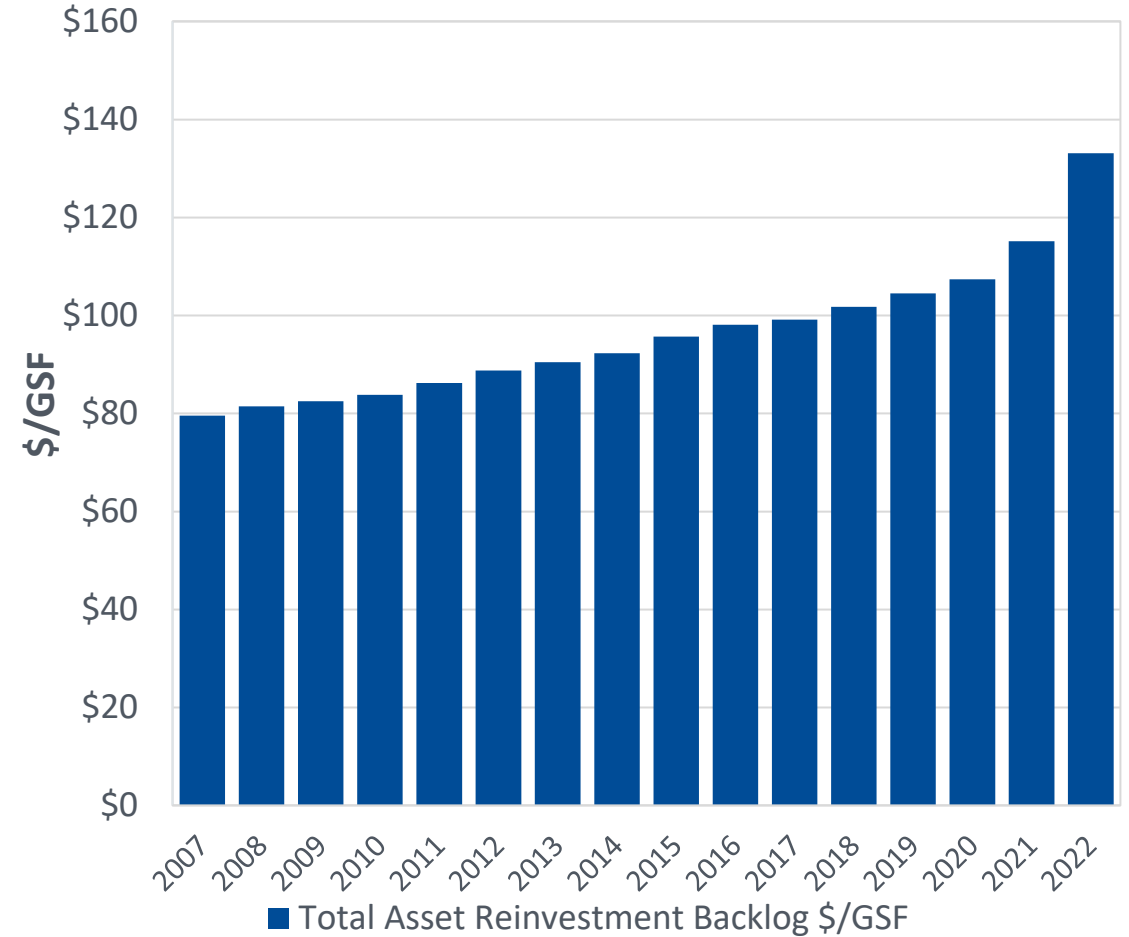
Capital Investment & Growing Backlog Across Higher Ed

13-year pattern of underinvestment in existing spaces; 16% growth in backlog in one year

Capital Spending vs. Investment Target

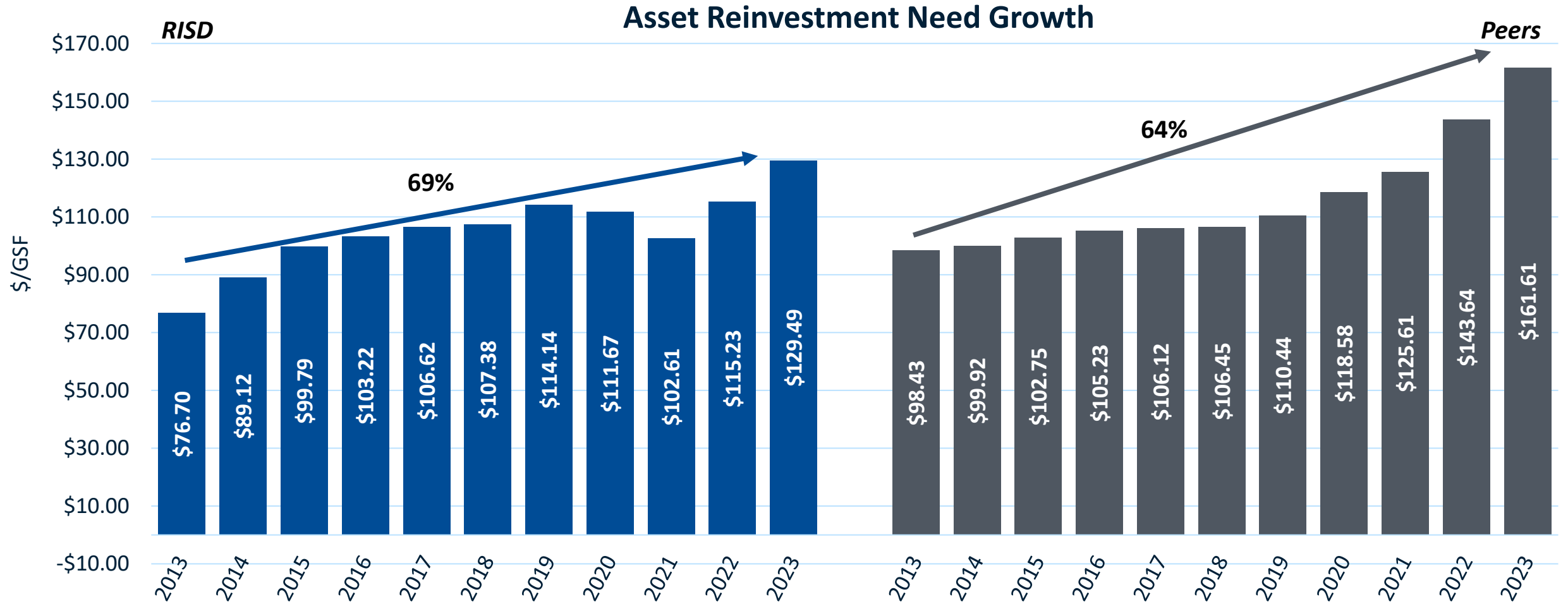


Asset Reinvestment Need (\$/GSF)



RISD AR Need Growing at a Similar Rate to Peers Since 2013

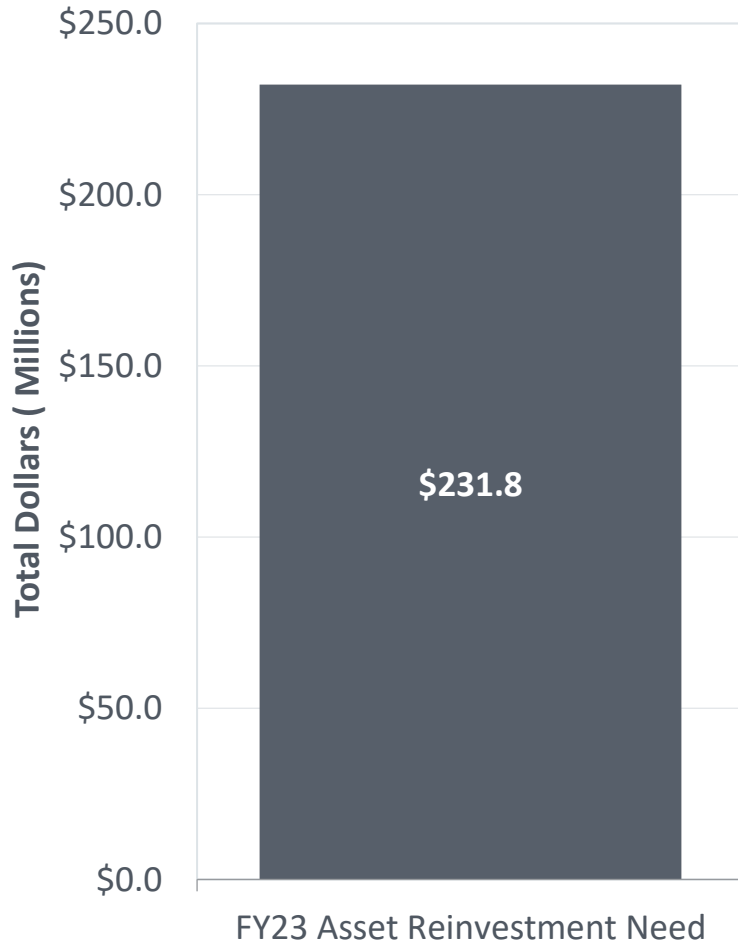
RISD average exceeds annual investment targets primarily due to strong investment levels the last 6 years



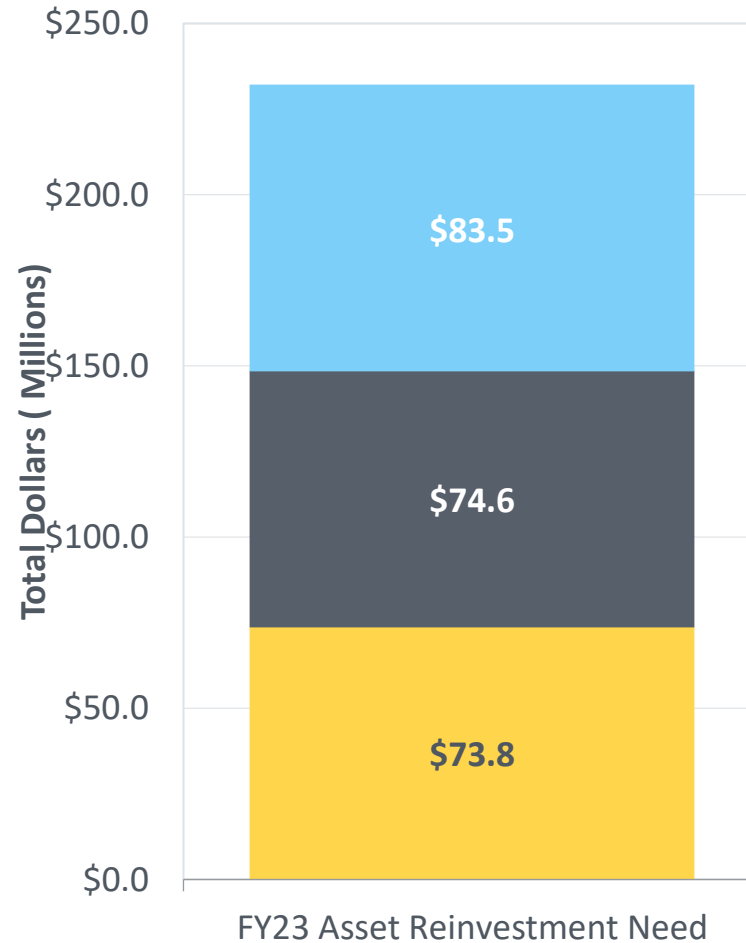
Identified Need Totals \$232M Over Next 10 Years

Backlog accounts for 32% of total need; majority of backlog (65%) driven by mechanical needs

Asset Reinvestment Need



Asset Reinvestment Need



Modernization:

- Modernization and Infrastructure need is estimated at \$83.5M.
- Gordian recommends a 10-year capital strategy to address the total need.

Renewal Need:

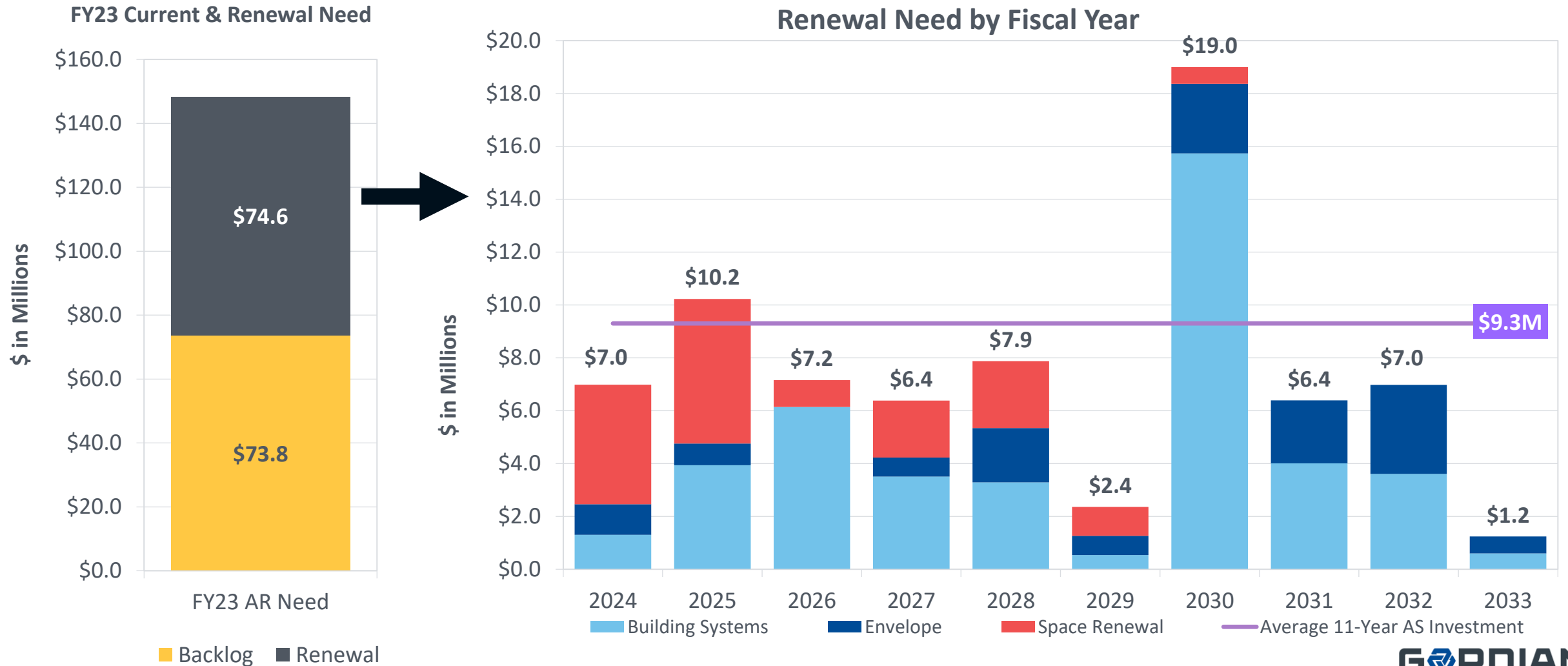
- Life cycle needs coming due between 2024-2033
- Total \$74.6M

Current Need:

- The subsystem has met its useful life cycle. Total \$73.84M
- The subsystem is functioning with substantial degradation of efficiency or performing at increased cost
- Life cycle needs already past due.

Strategic Project Selection Needed With Available Resources

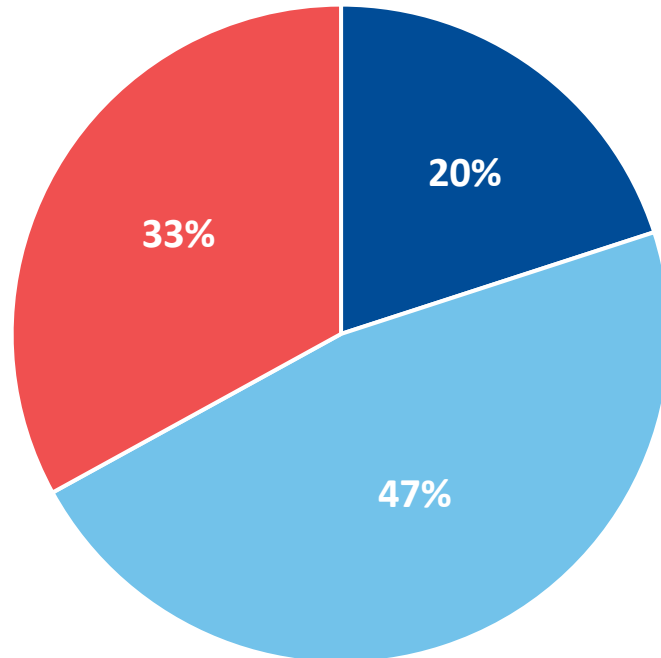
Historic Annual Stewardship investment would meet coming needs in most years of the 10-year window



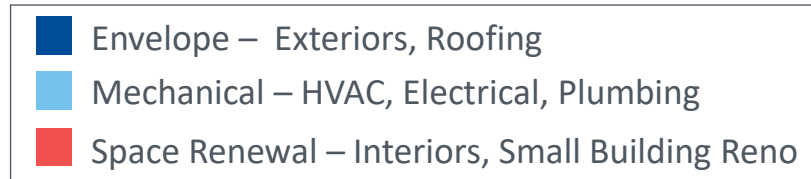
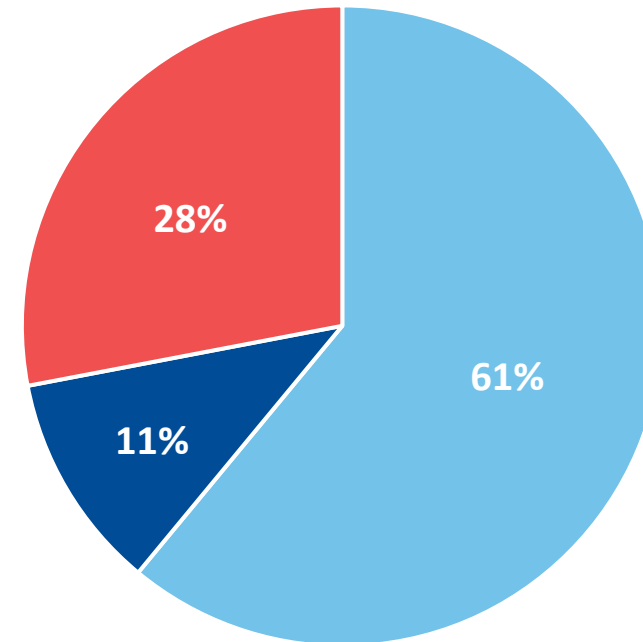
Continued Capital Investment into Higher ROI Projects

Mechanical makes up 47% of historical capital investments and continues to be focus of current/renewal need

Historical Capital Investment
(2015 – 2023)

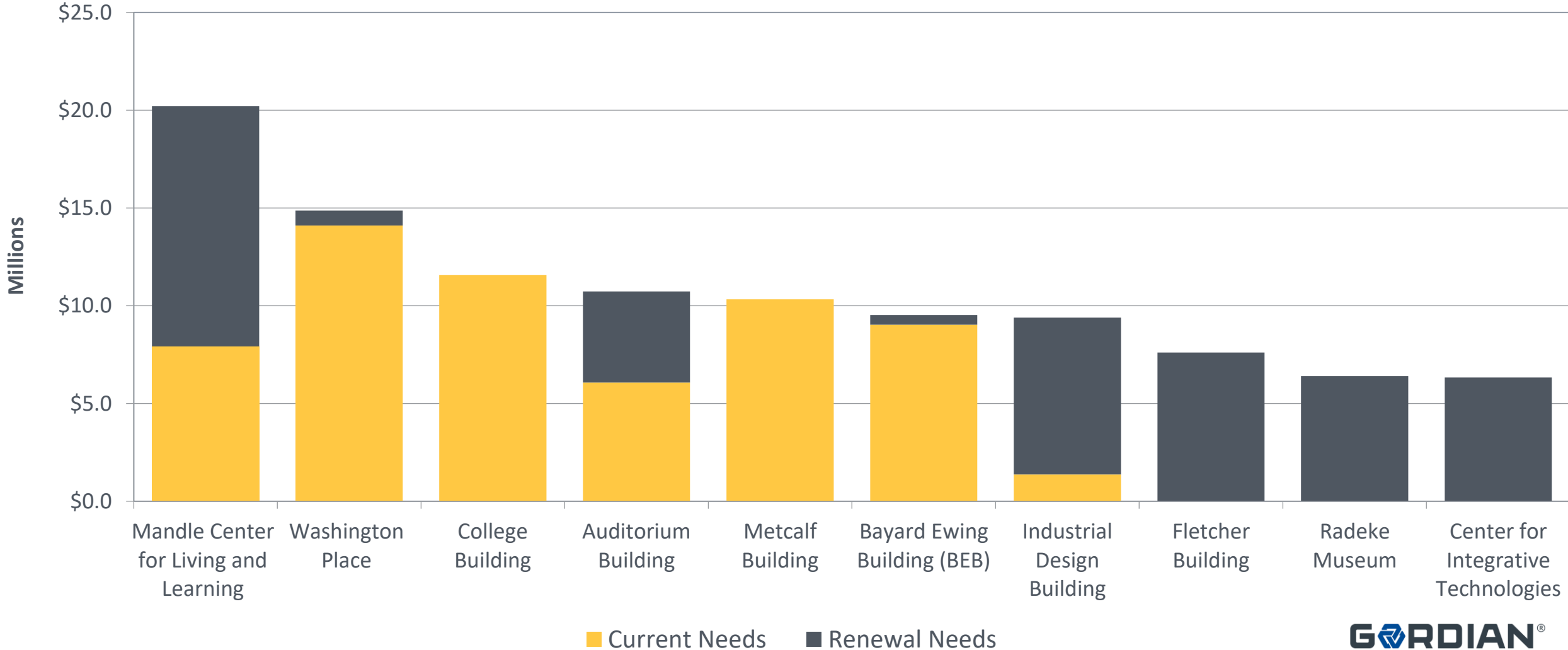


Current & Renewal Need
(2023-2033)



Top 10 Buildings Account for 72% of 10-Year Need

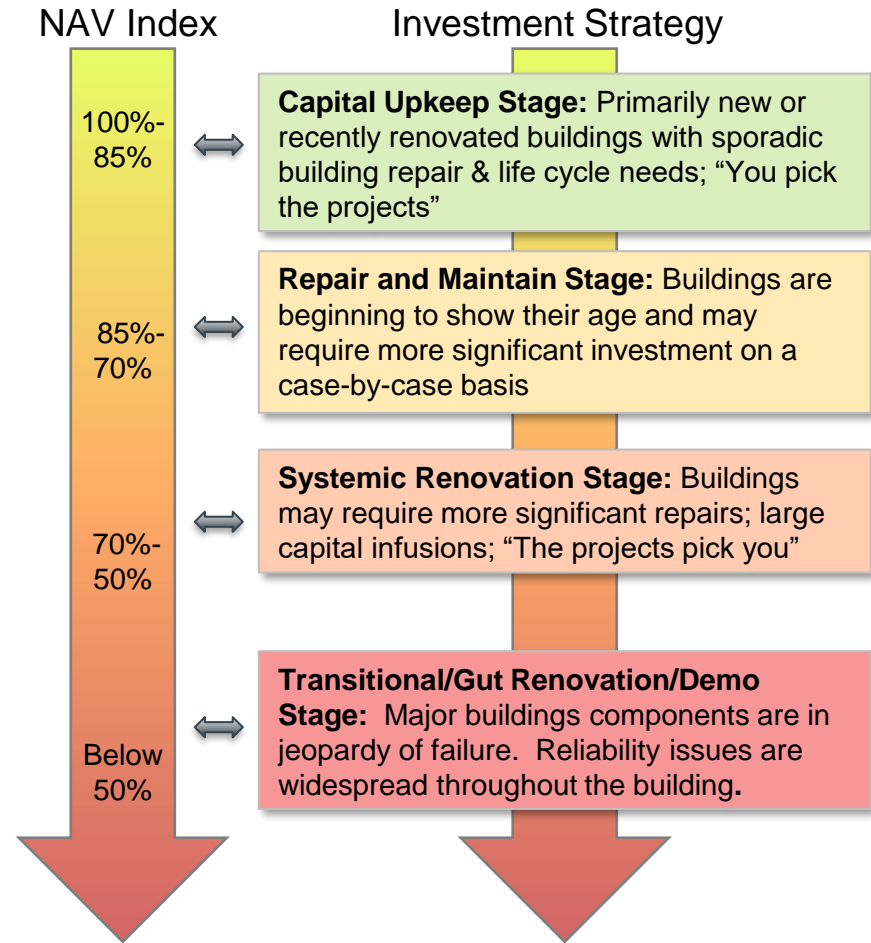
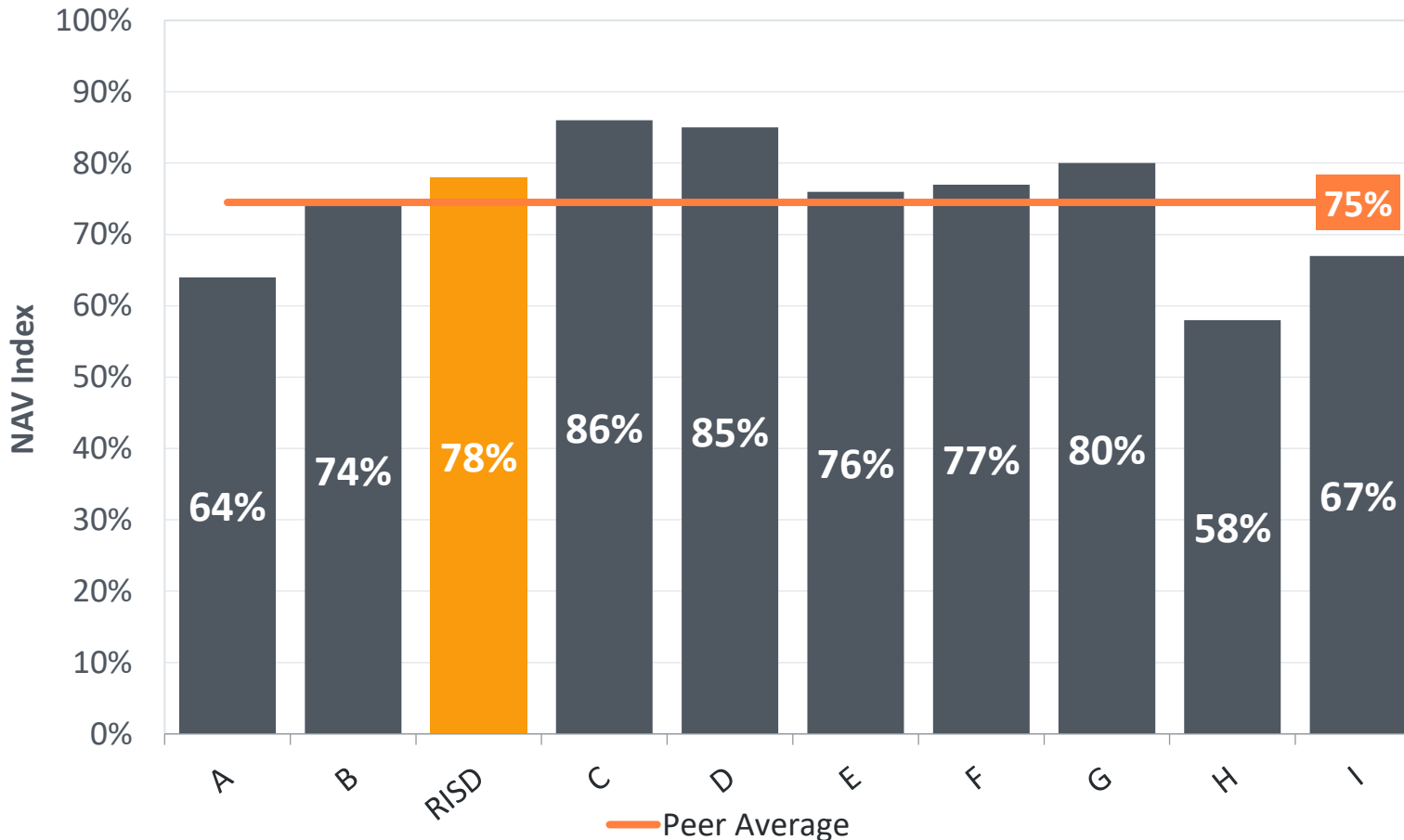
10 Highest Need Buildings by Current and Renewal Needs



Net Asset Value Measures the “Good” Space on Campus

RISD NAV above peer average falls right in the middle of Repair and Maintenance stage

FY23 Net Asset Value



$$\text{Net Asset Value} = \frac{\text{Replacement Value} - \text{Building Needs}}{\text{Replacement Value}}$$

*Ordered by Technical Complexity

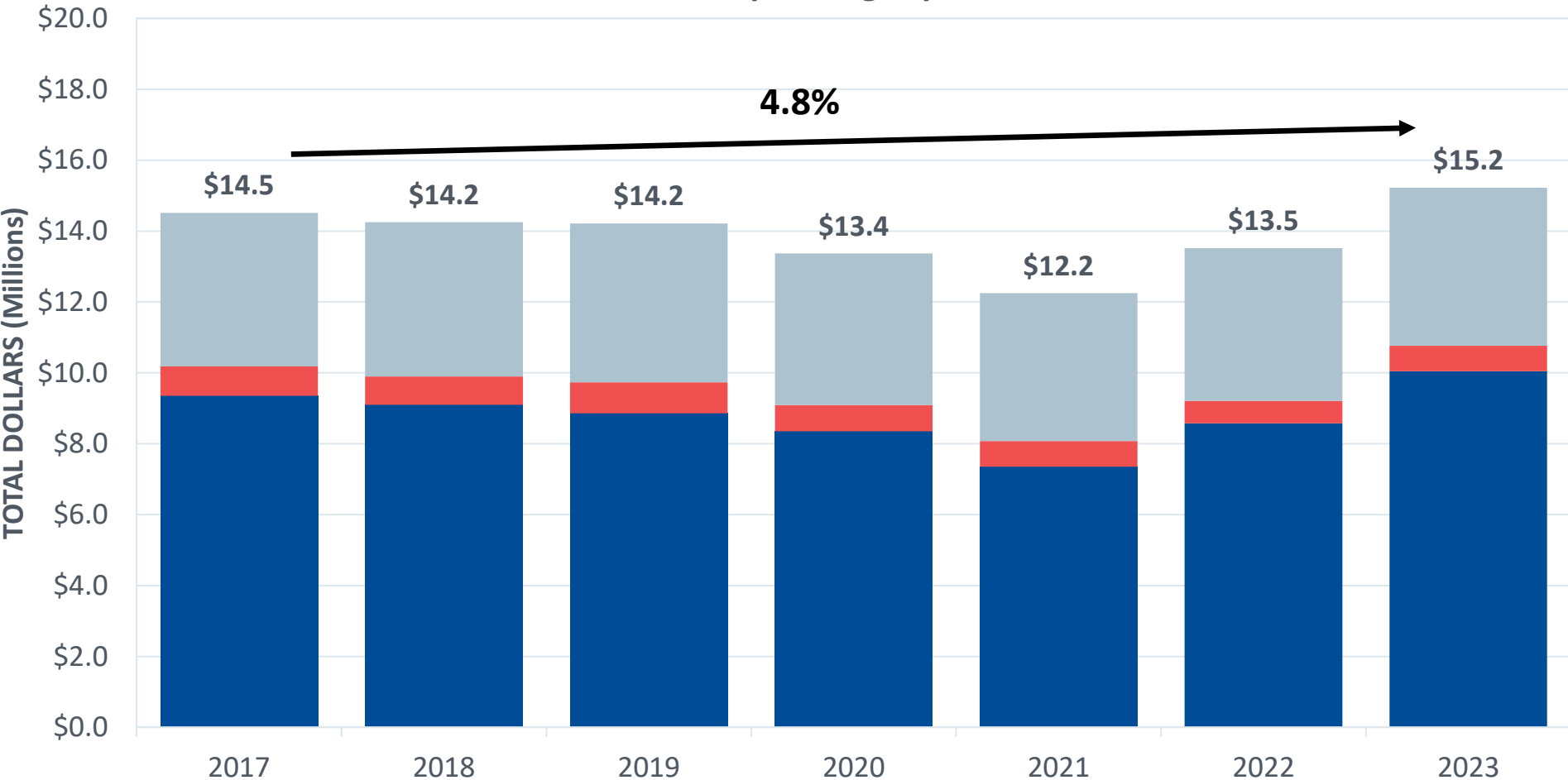
Operational Effectiveness



Continue to See Increase in Operating Expenses Post-COVID

Increases driven by stewardship of the portfolio via Daily Service and PM spending

Facilities Operating Expenditure



Utilities
 Fossil Fuel
 Electric
 Water/Sewer

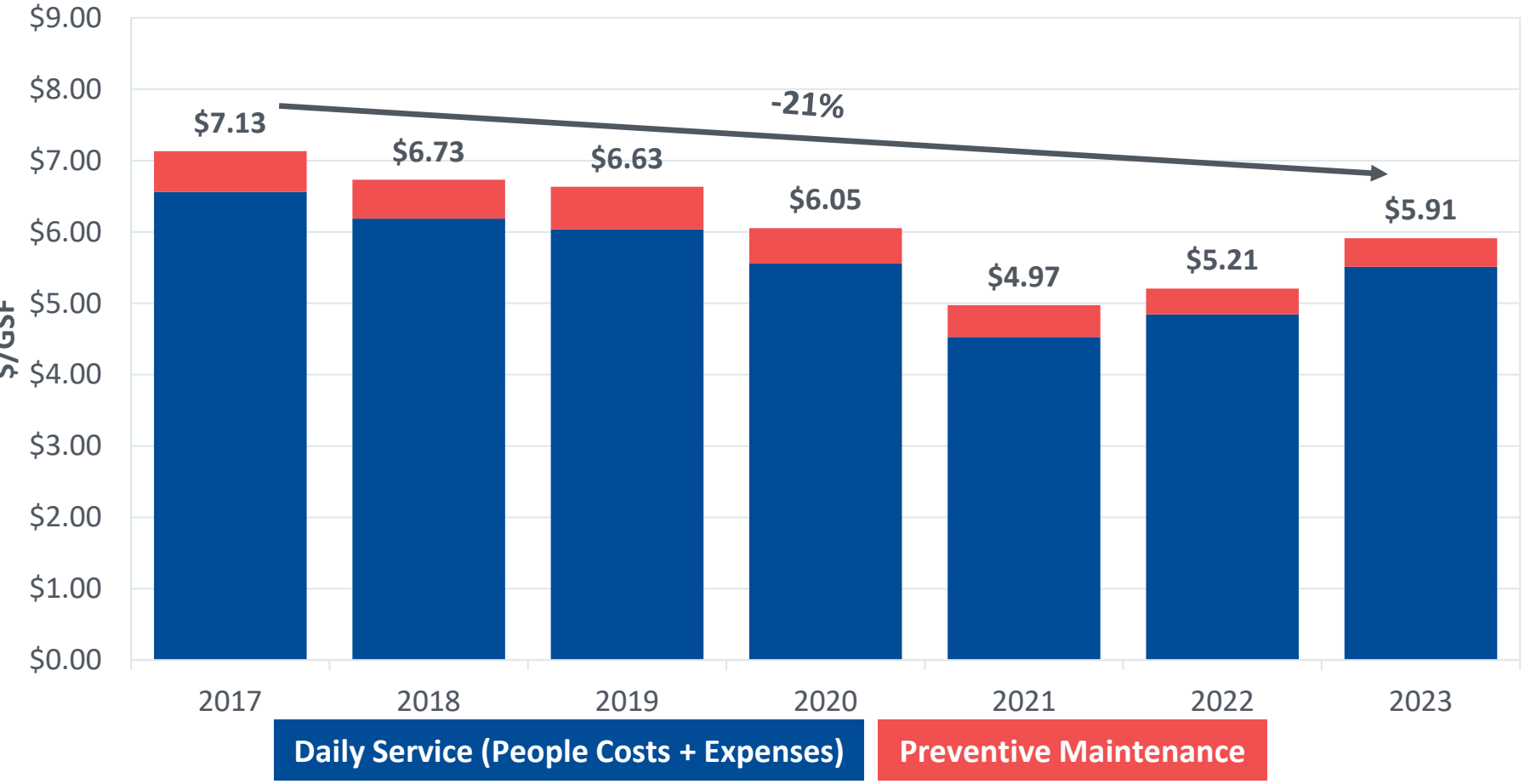
Planned Maintenance
 Internal & Outsourced
 work dedicated to
 extending lifecycles

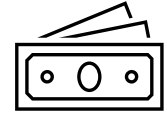
Daily Service
 People Costs
 Contracted Services
 Materials

Growing Cost of Goods Putting Additional Strain on Operations

When factoring for inflation the buying power of operating resources is reduced

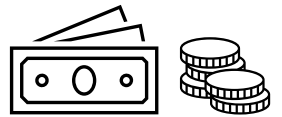
Inflation Adjusted Facilities Operating Expenditure





Goods & services costing \$1 in 2017

Cost an average of

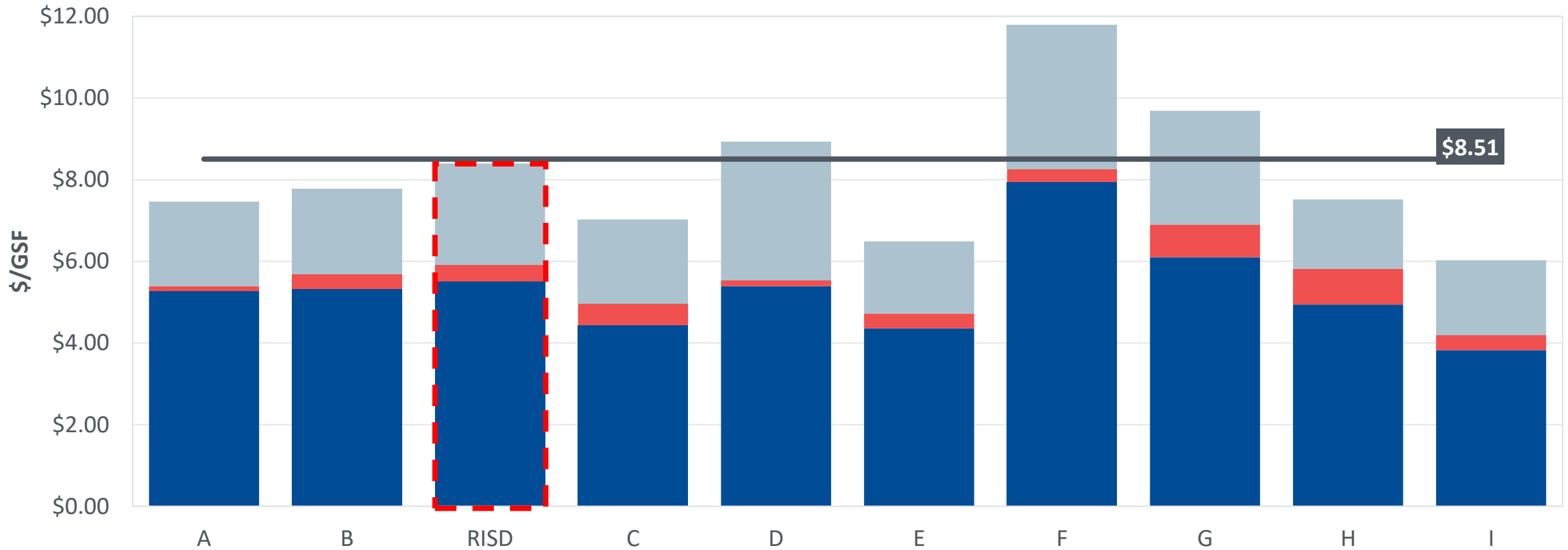


\$1.24 in 2023

***Consumer Price Index (CPI):** measure of the average change over time in the prices paid by consumers for a market basket of consumer goods/services
 Consumer Price Index for All Urban Consumers: All Items in U.S. City Average (CPIAUCSL) | FRED | St. Louis Fed (stlouisfed.org)

COLI Adjusted FY23 Expenditures At Peer Level

FY23 Facilities Operating Actuals
Regionally COLI Adjusted

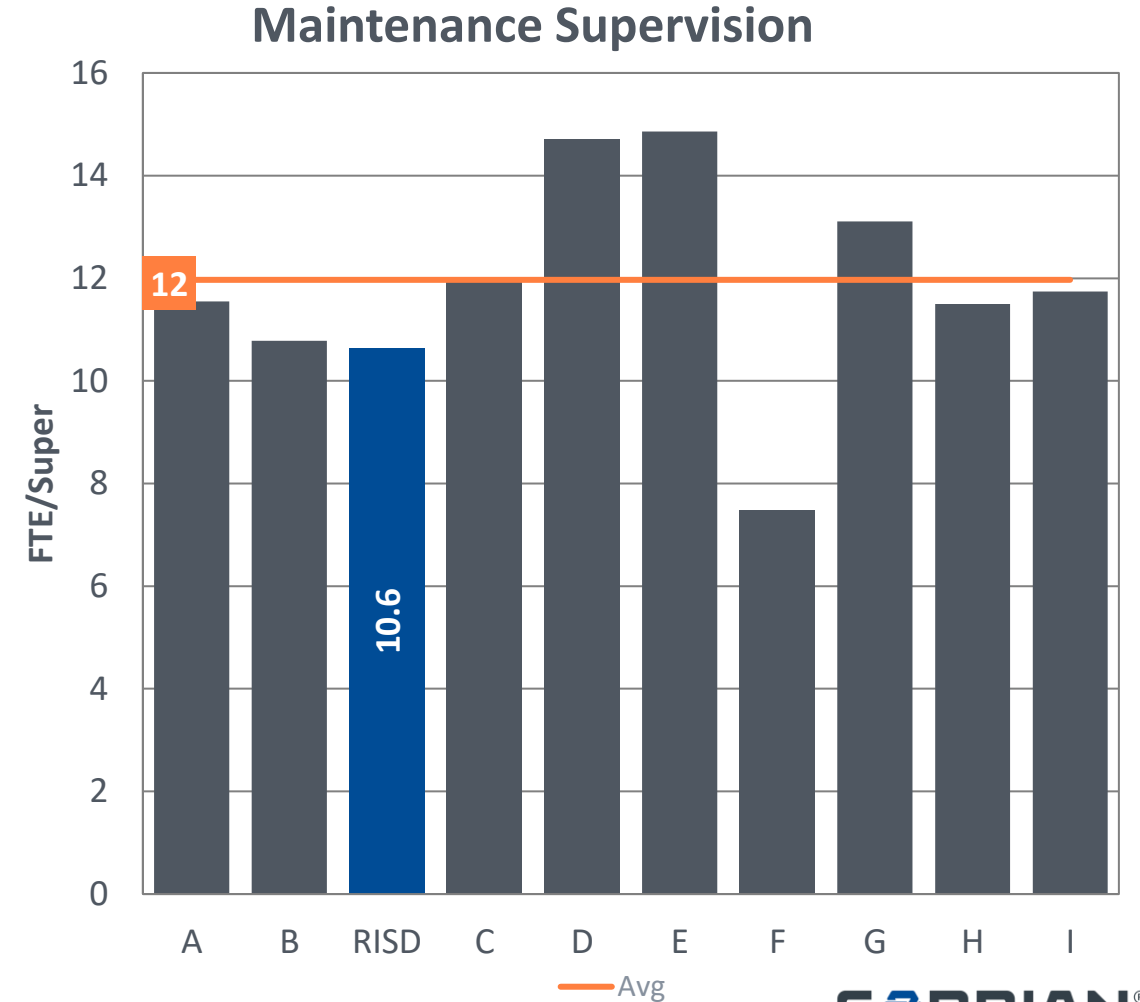
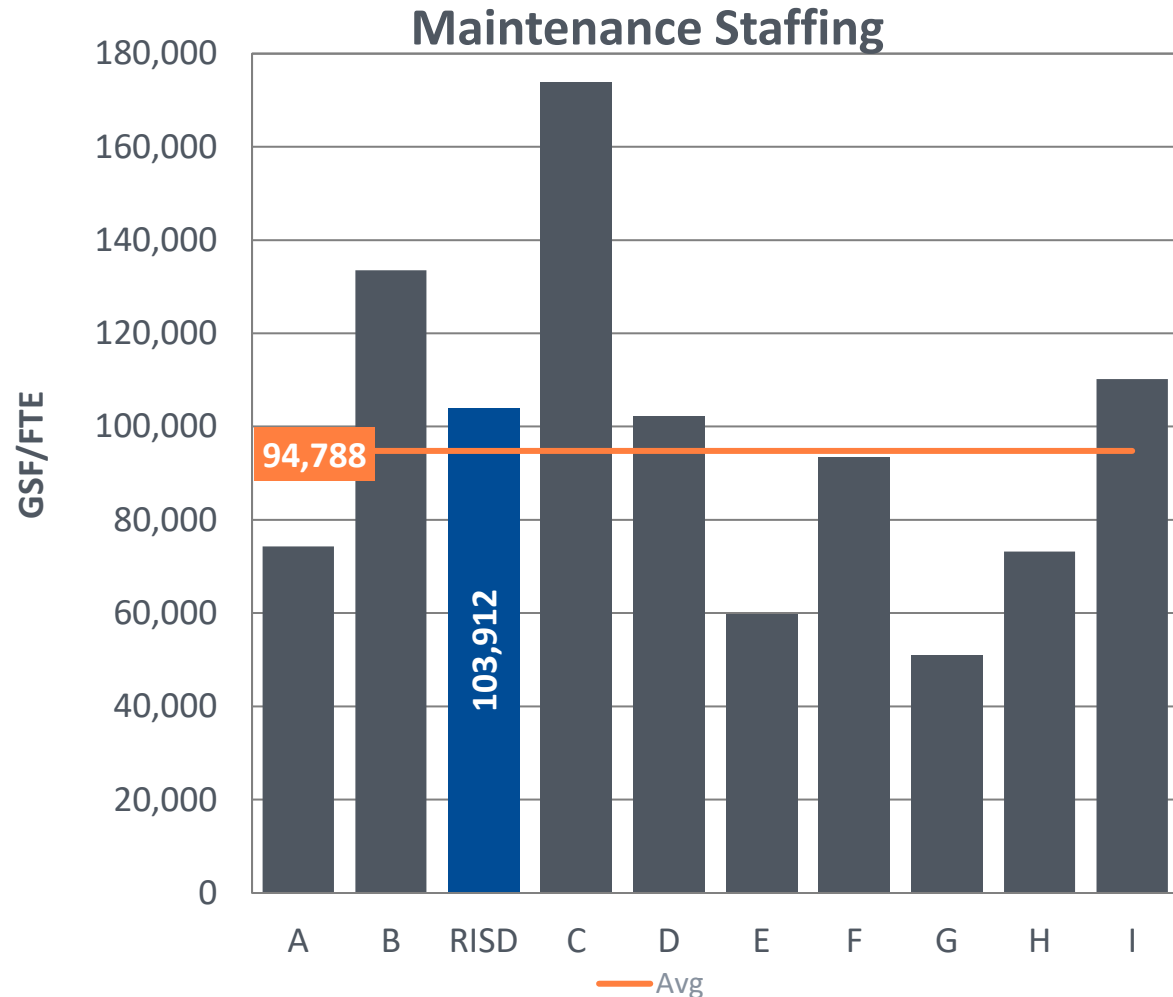


* Ordered by Technical Complexity

■ Daily Service ■ PM ■ Utilities — Peer Average

RISD Maintenance Metrics Compared to Peers

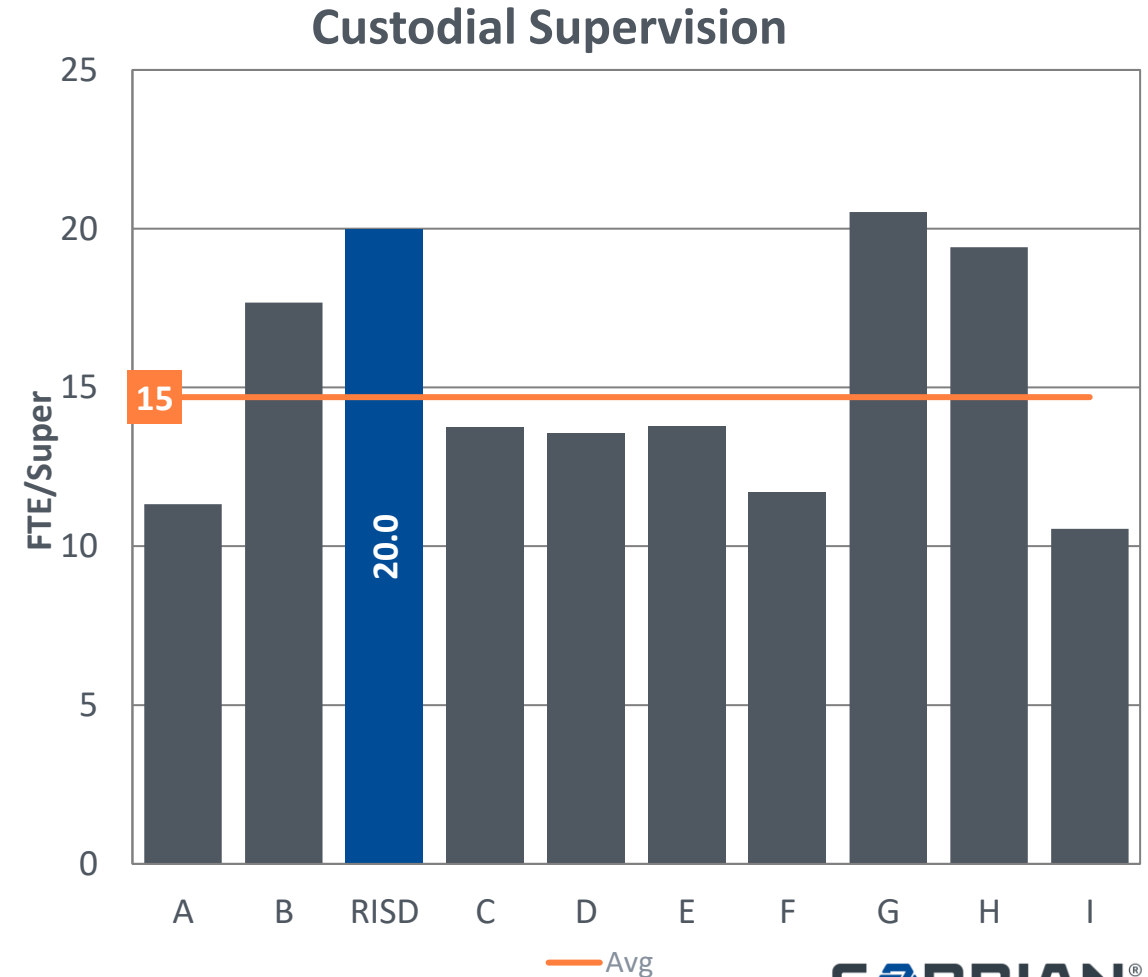
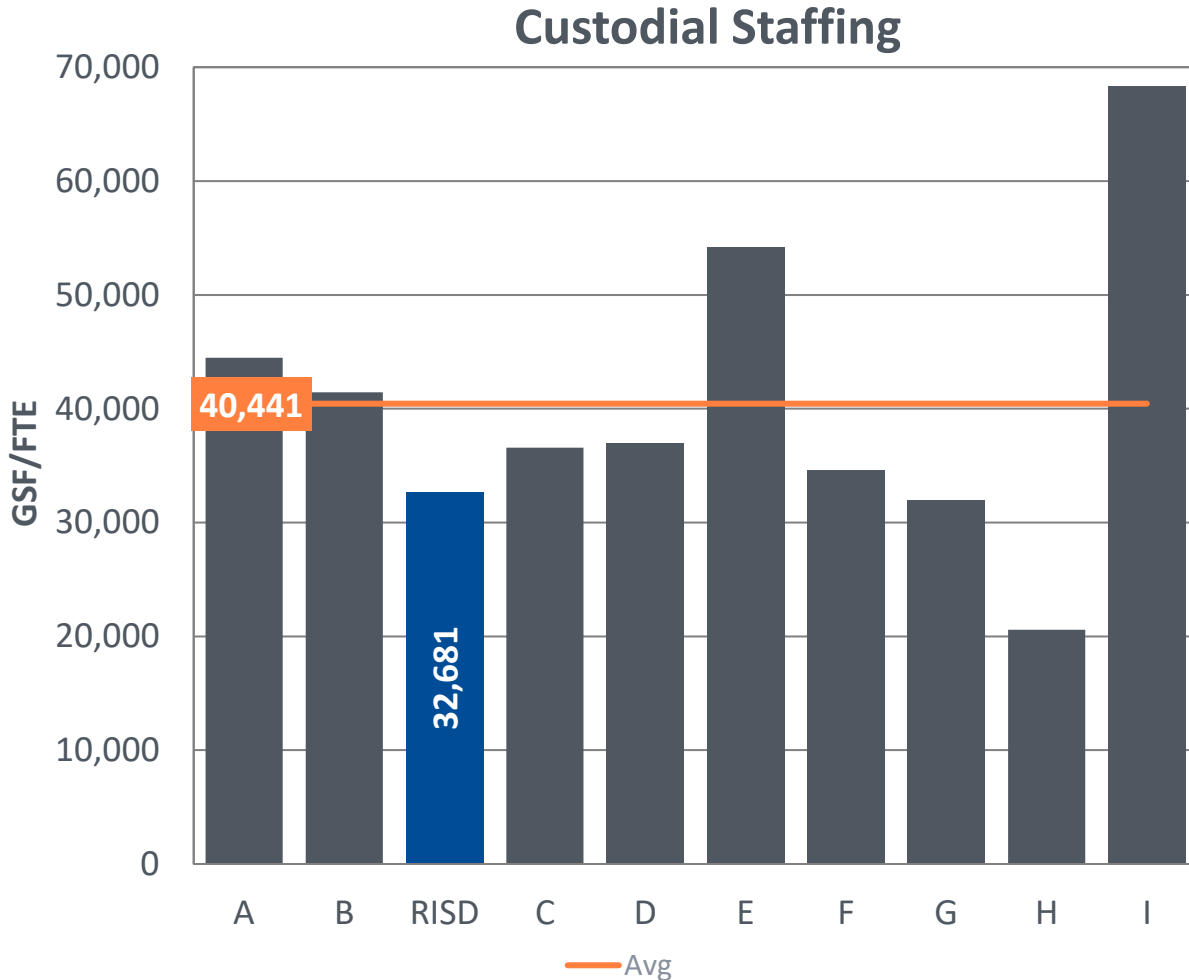
RISD staff covering more space per FTE with tighter supervision



* Ordered by Technical Complexity

RISD Custodial Metrics Compared to Peers

RISD staff covering less space per FTE with looser supervision



* Ordered by Density

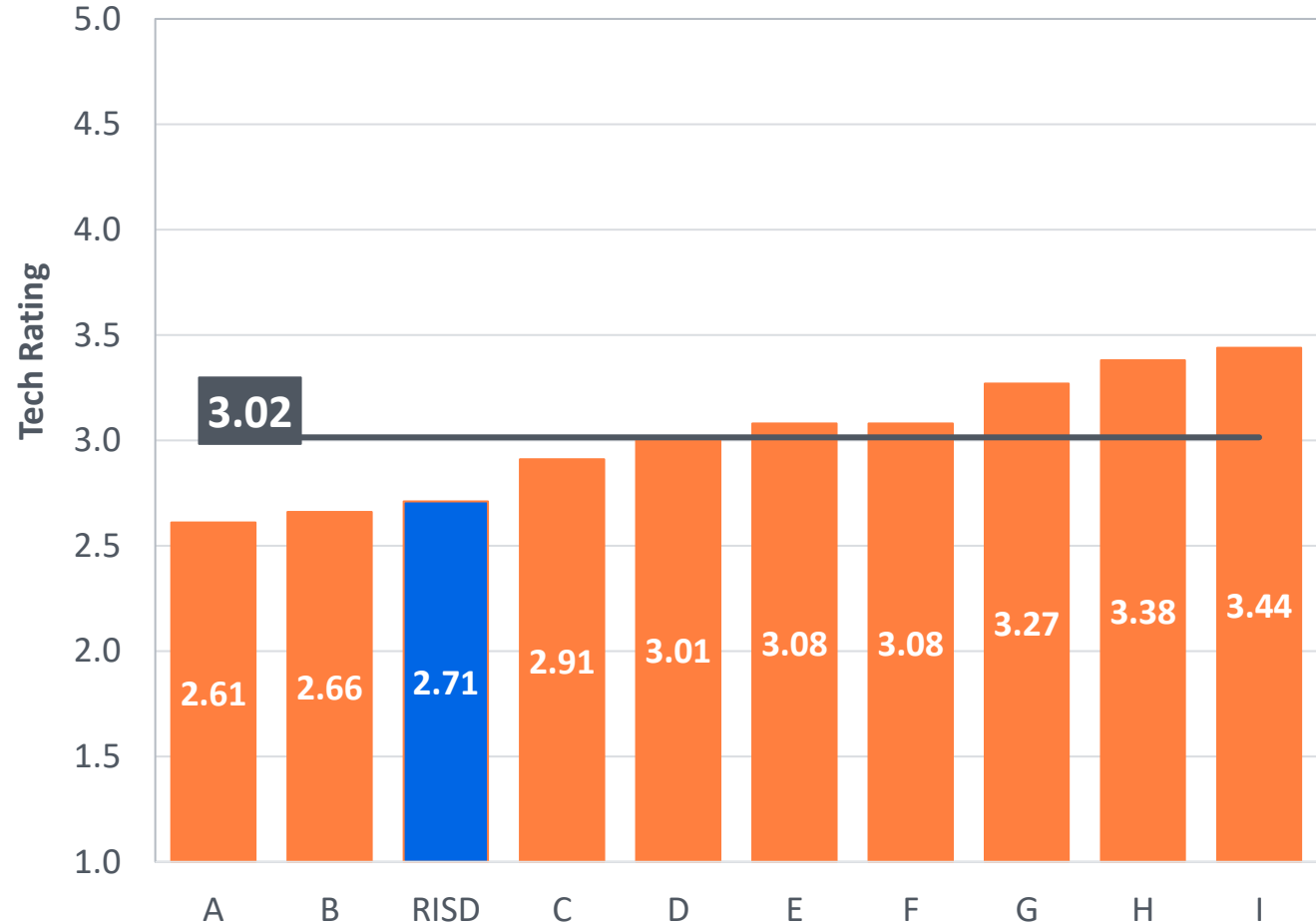
Energy



RISD Regional Energy Peer Institutions

Massachusetts	
Amherst College	Amherst, MA
Babson College	Wellesley, MA
Emerson College	Boston, MA
Fitchburg State University	Fitchburg, MA
Massachusetts College of Art & Design	Boston, MA
Univ of Massachusetts-Dartmouth	Dartmouth, MA
Worcester State University	Worcester, MA
Rhode Island	
Brown University	Providence, RI
University of Rhode Island	South Kingstown, RI

Technical Complexity vs. Energy Peers



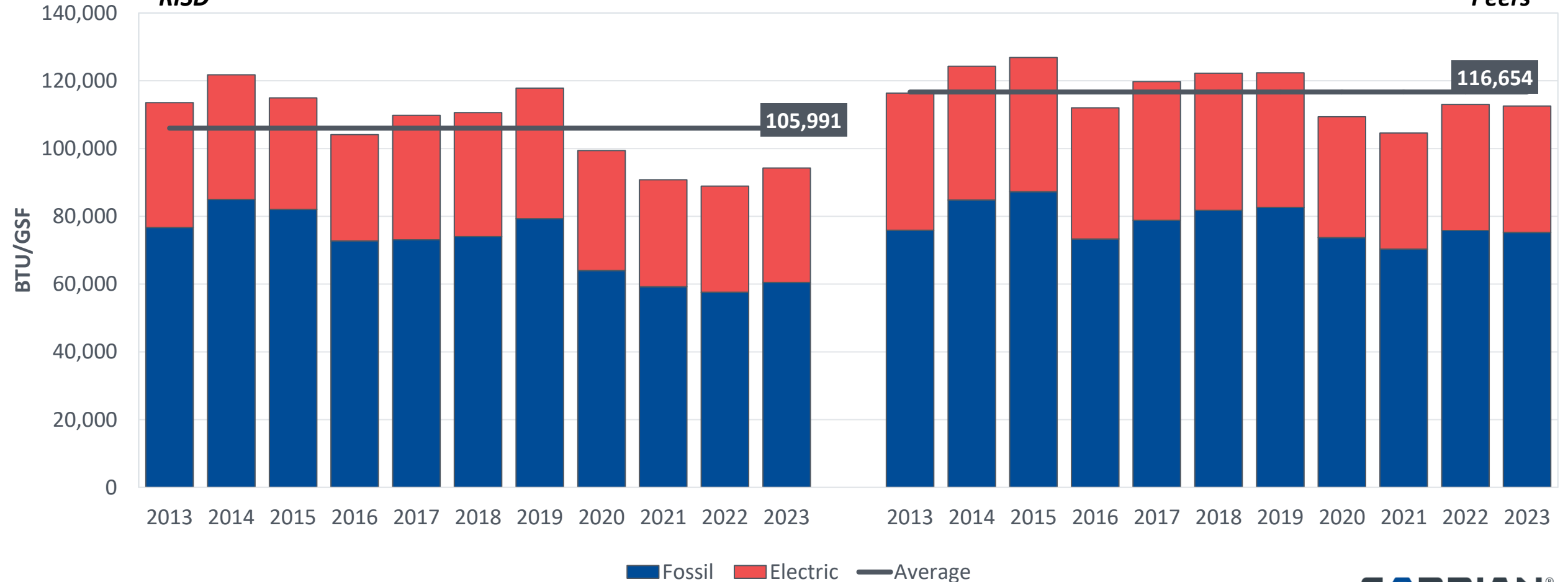
Continue to Consume Less Energy than Peers

While we saw a bump in energy consumption in FY23 total consumption down 20% from high in FY19

Total Utility Consumption by Fuel Type

RISD

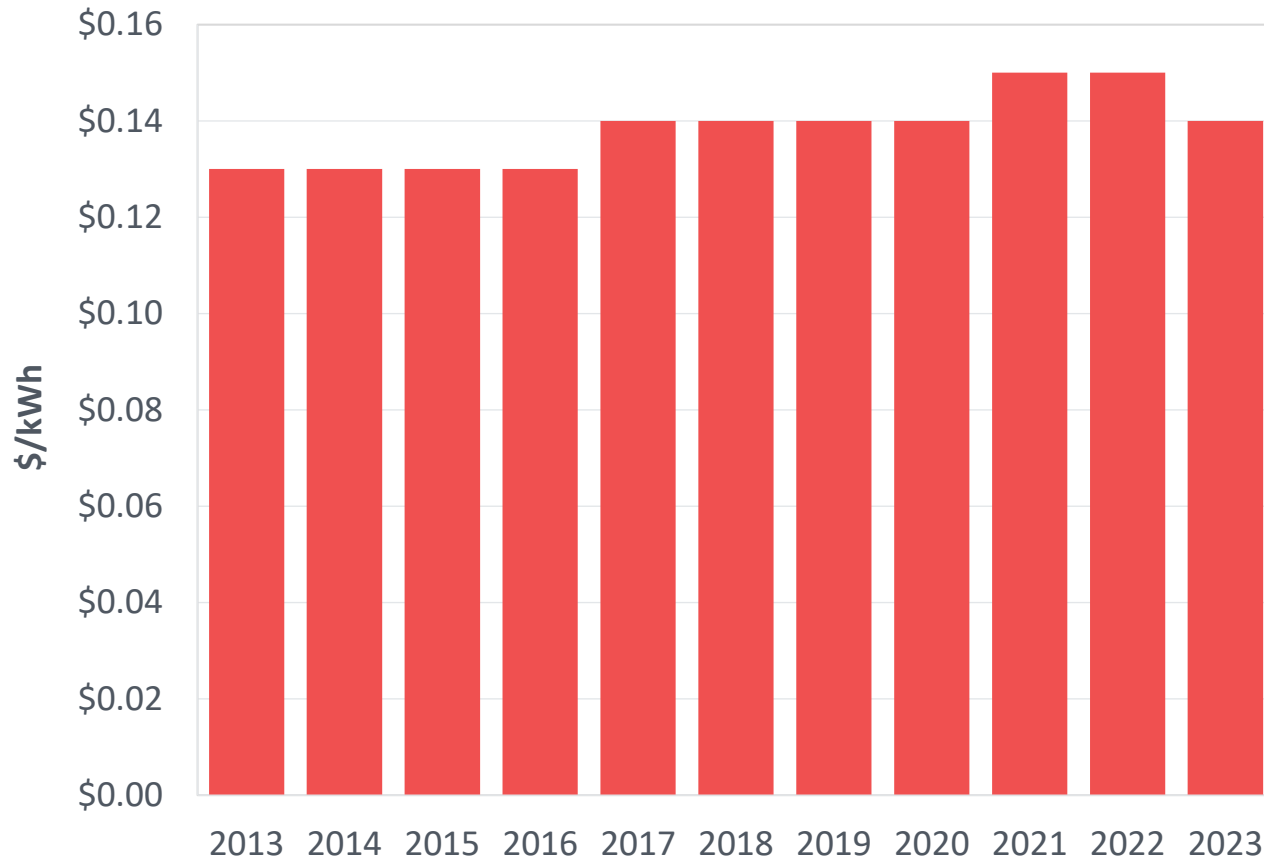
Peers



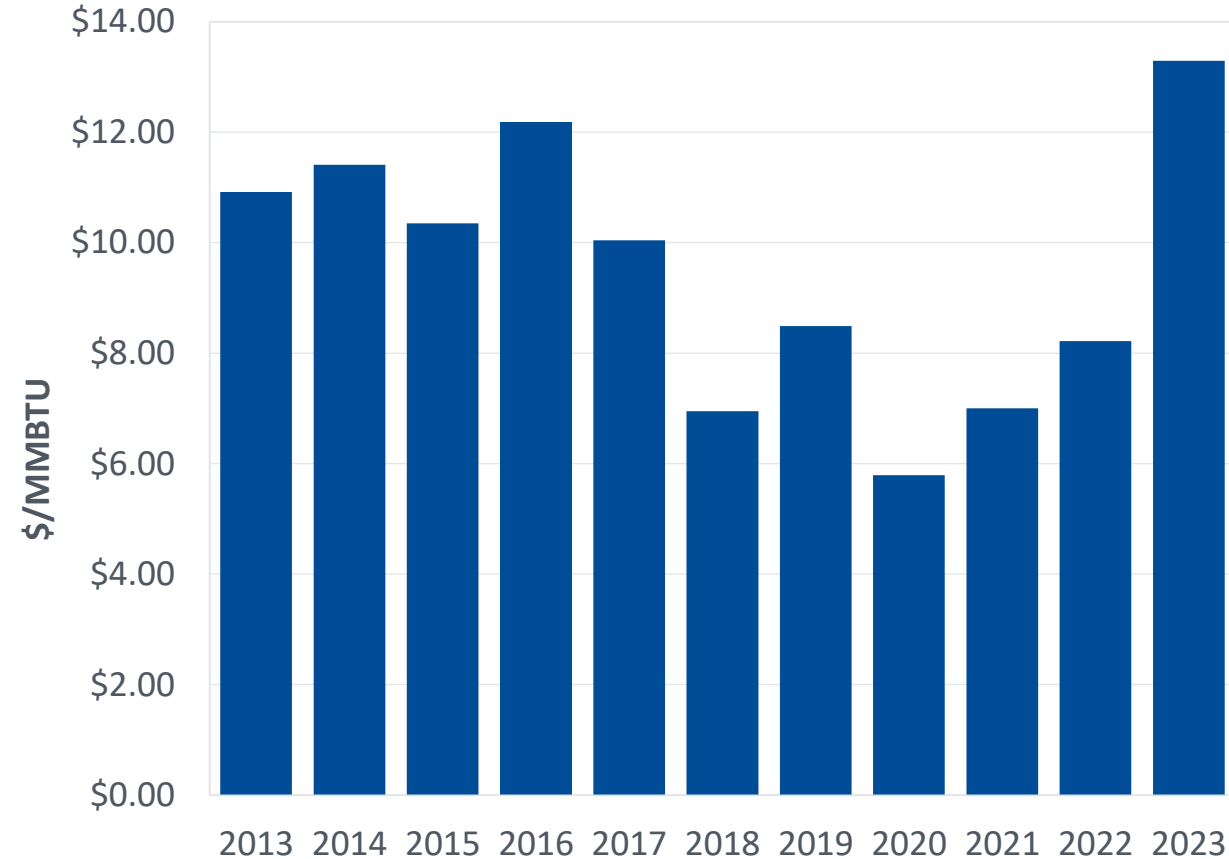
Overall Utility Spending Relatively Stable Year-over-Year

Fossil unit costs jumped significantly in FY23; off-set by reduced electric unit costs

Electricity Unit Cost



Fossil Unit Cost



Concluding Comments / Key Takeaways

Building Age Sets the Stage

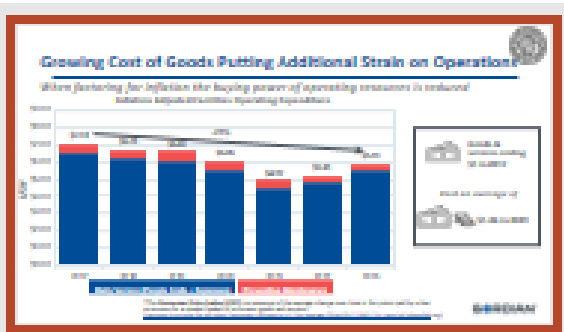
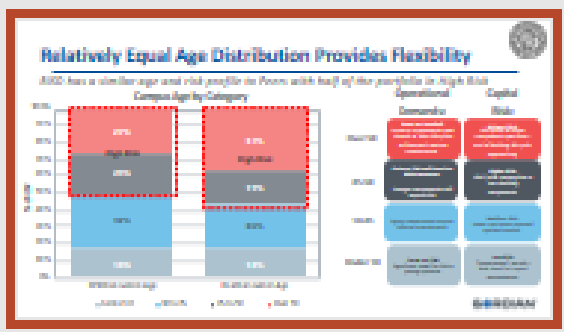
- RISD has a slightly younger age profile than their peer group, but similar distribution of age risk. The campus has more buildings on average that are smaller in size driving varying capital and operational needs.
- Without major renovations, RISD’s age profile is projected to shift in FY30 with 75% of space considered high-risk.
- Academic and Residence Hall space make up the majority of the portfolio; carrying the least amount of age risk.

Capital investment Improves Buildings Condition of Buildings

- Historic capital expenditures have overwhelming prioritized existing space; investment has targeted mechanical and envelope projects (58% of investment) which aligns to where the majority of coming needs exist.
- Strong investment over the last 6 years have slowed the growth in Asset Reinvestment need as compared to peers.
- Asset Reinvestment need above the \$100/GSF target level where “projects tend to pick us” and our ability to prioritize projects will be challenged as the facilities team is forced to react to system failures.

Facilities Operating Profile

- Operating resources have grown slightly over the last 7 years (4.8% increase in actual dollars); these resources do not have the same buying power when factoring for inflation. Operations are being asked to do more with less as our Asset Reinvestment need is growing.
- Maintenance covering more space than peers in alignment with technical complexity; Custodial staff covering less space than peers, however when accounting for absenteeism coverage levels are more in-line with peers.
- Continued to see benefits of strong energy program; overall consumption slightly higher, but continues to be less than peers.



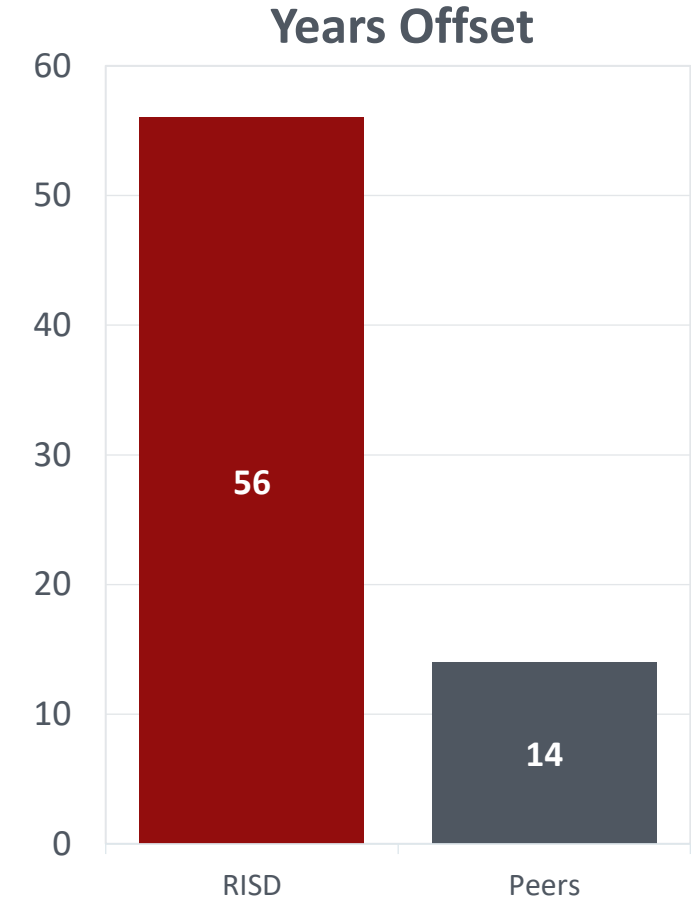
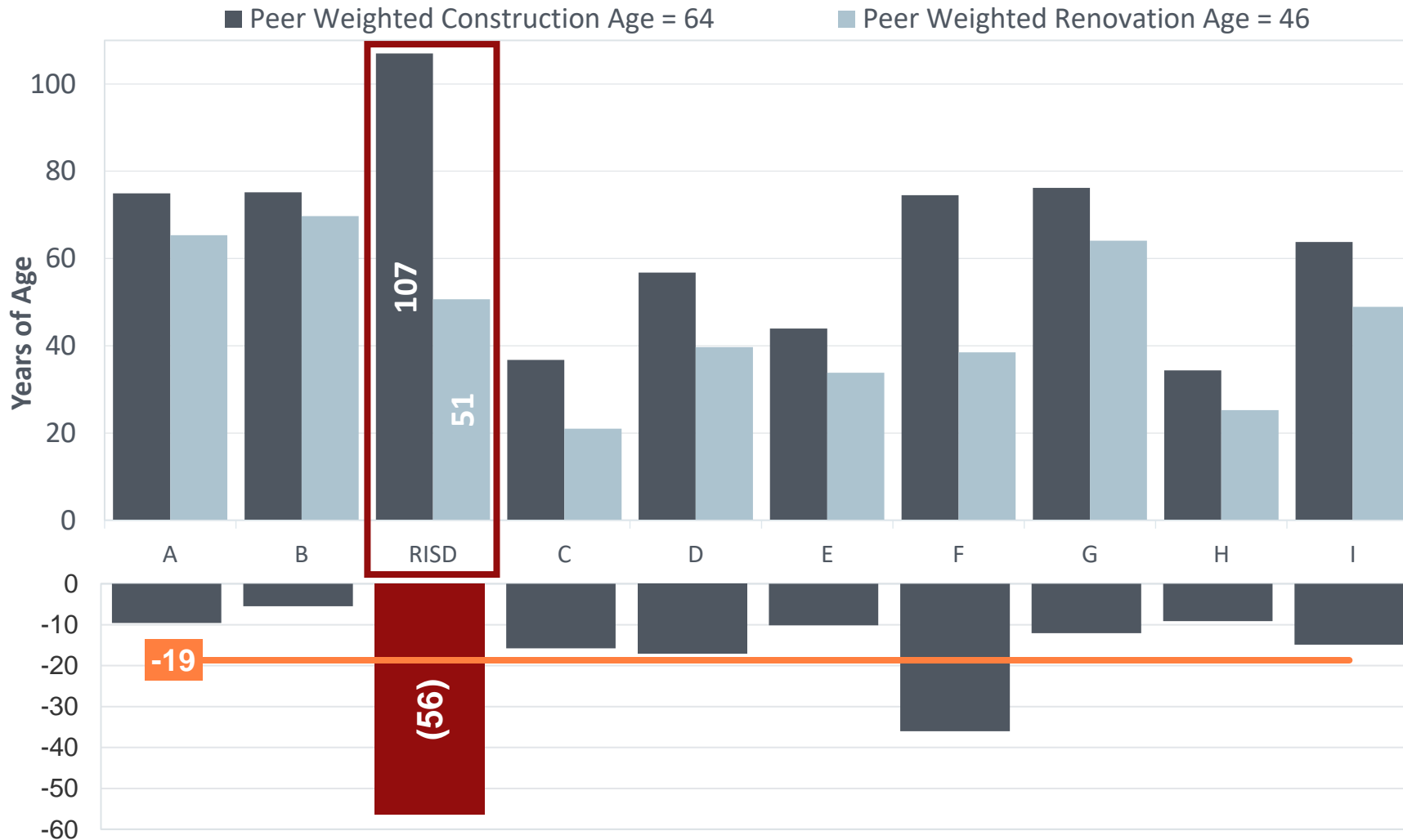
Questions / Discussion



RISD Significantly Reduced Age of Campus Via Renovations

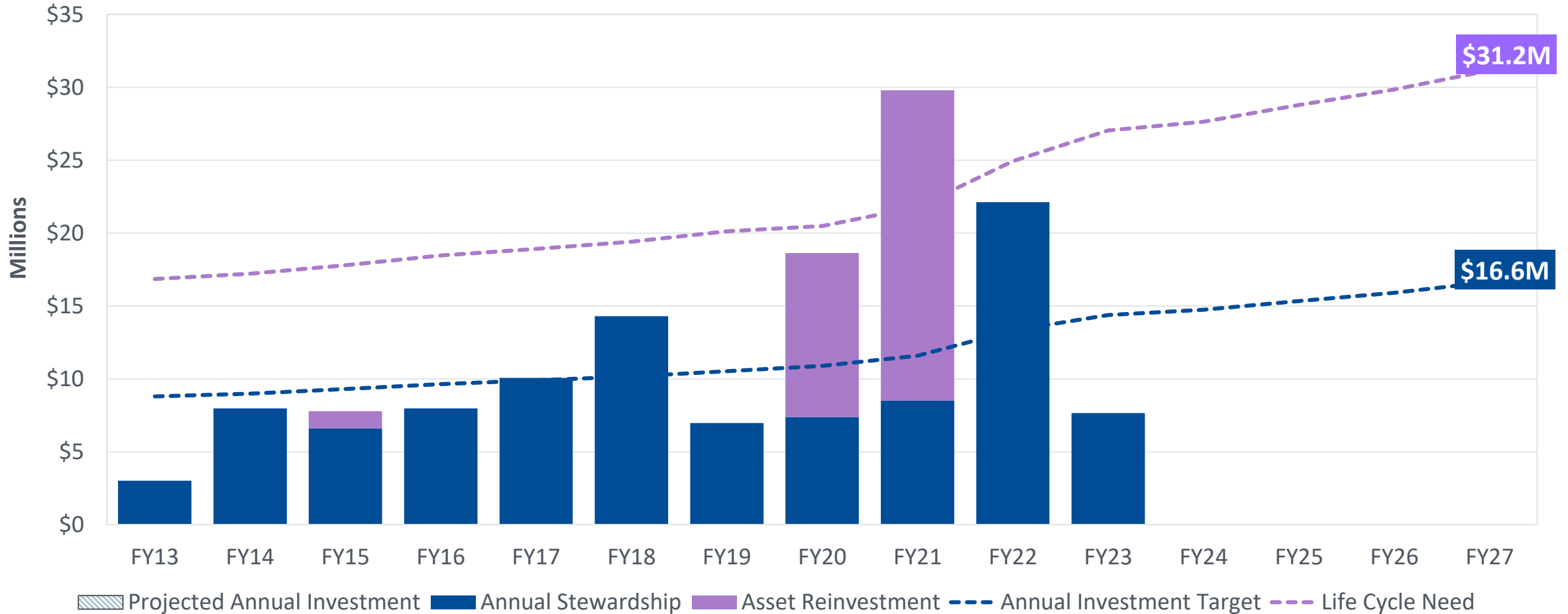
Strategic renovations can reduce campus age and negate growth of deferred maintenance

Construction Age vs Renovation Age



Projecting Out Future Investment Targets

Total Capital Investment into Existing Space vs. Funding Target

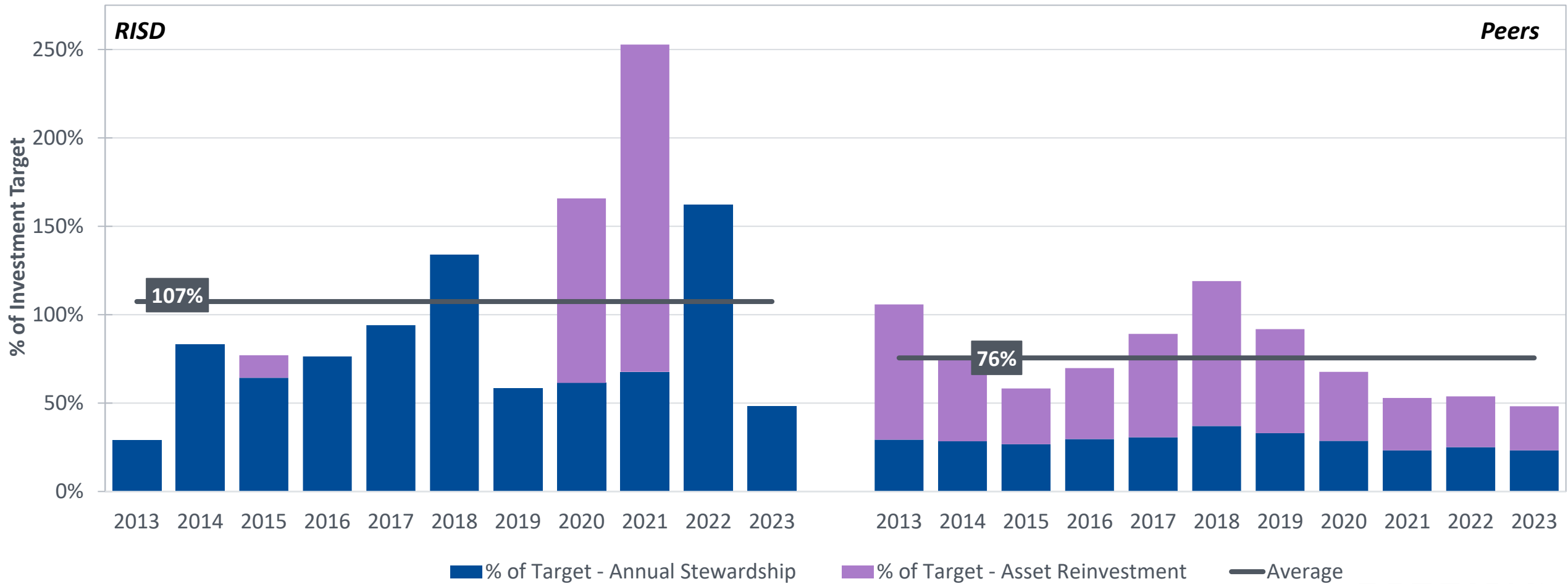


*Assuming 5% Inflation Factor for FY24-27

RISD has Higher Level of Annual Stewardship Funding than Peers

RISD average exceeds annual investment targets as a result of strong investment levels the last 6 years

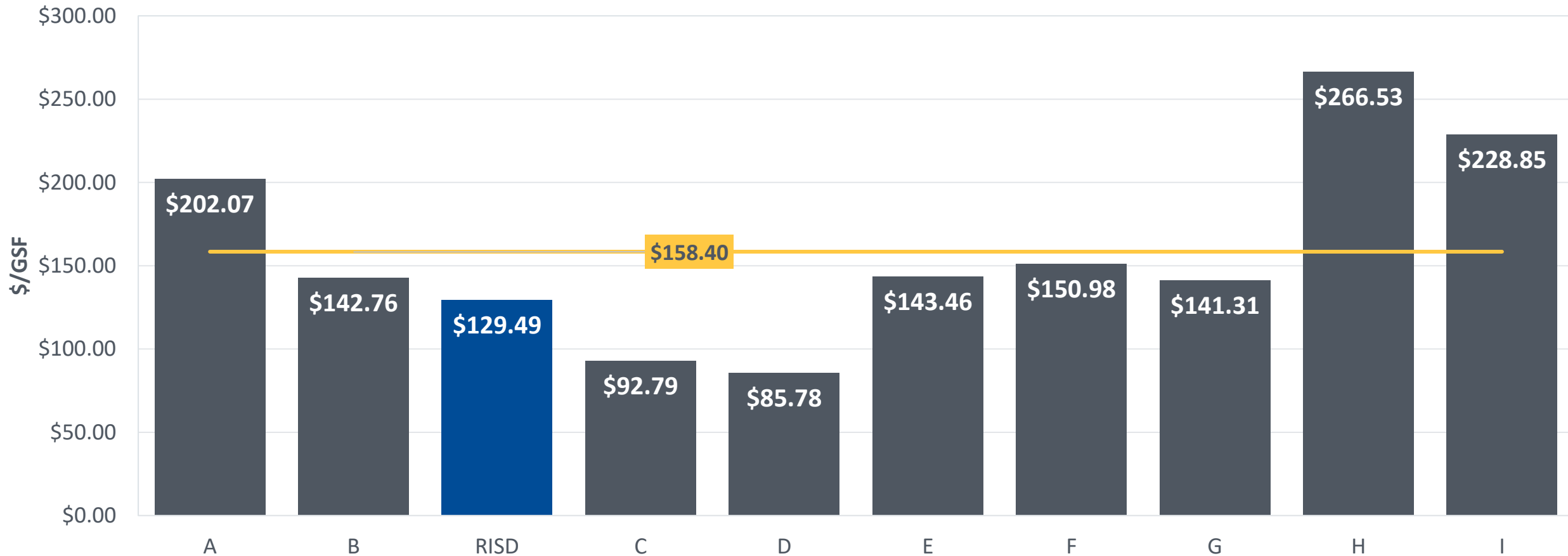
% of Target Funded



RISD Total AR Need Below Overall Peer Average

As AR Need grows over \$100/GSF we start to see challenges with project prioritization

FY23 Asset Reinvestment Need vs. Peers

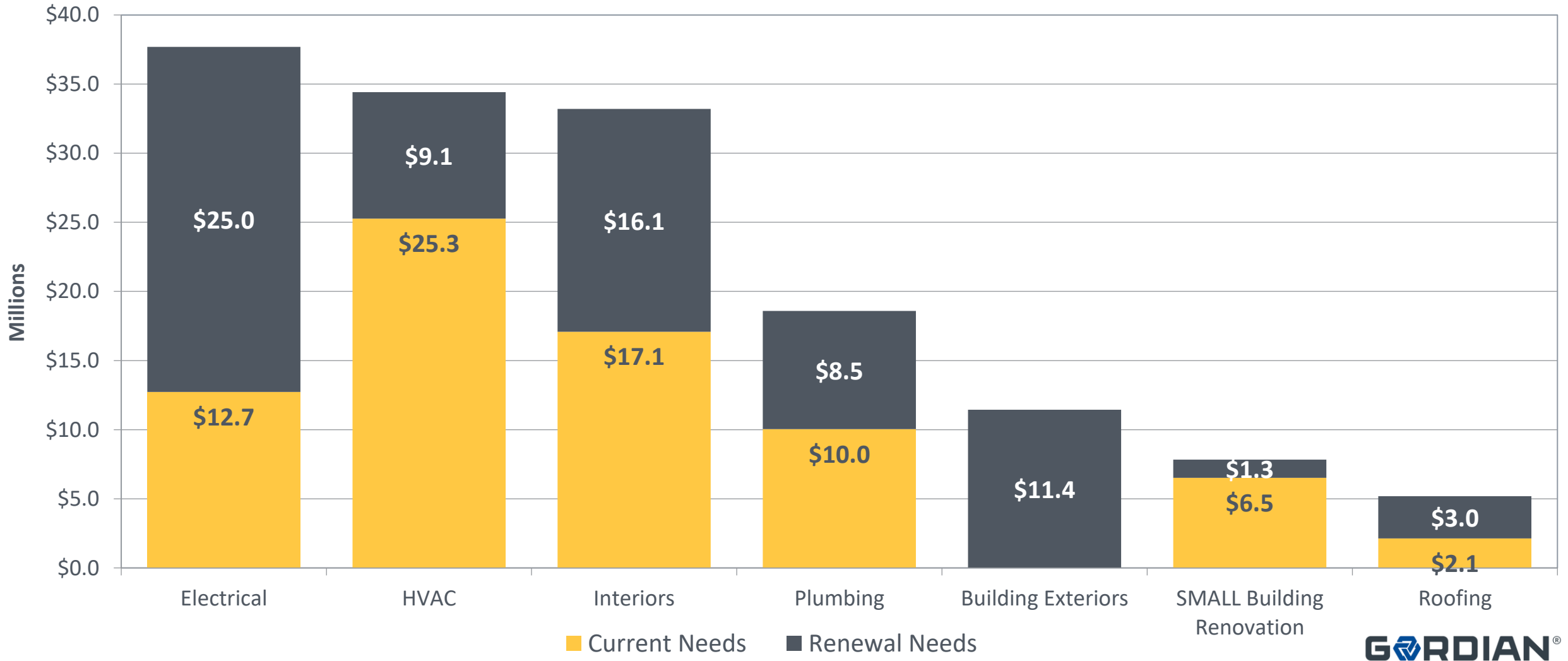


* Ordered by Technical Complexity

— Average

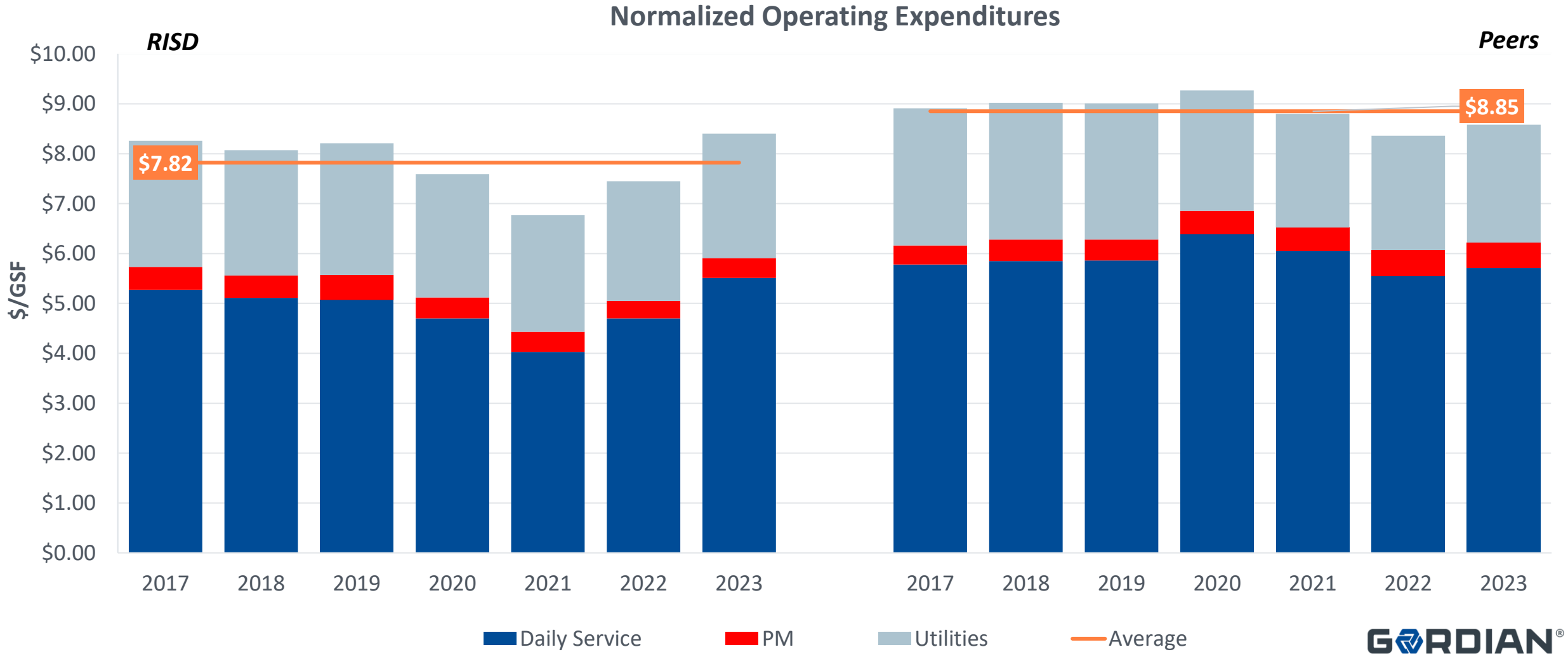
Understanding Current and Renewal Needs by System

Current and Renewal Needs by System



RISD Historically Operating With Less Resources Than Peers

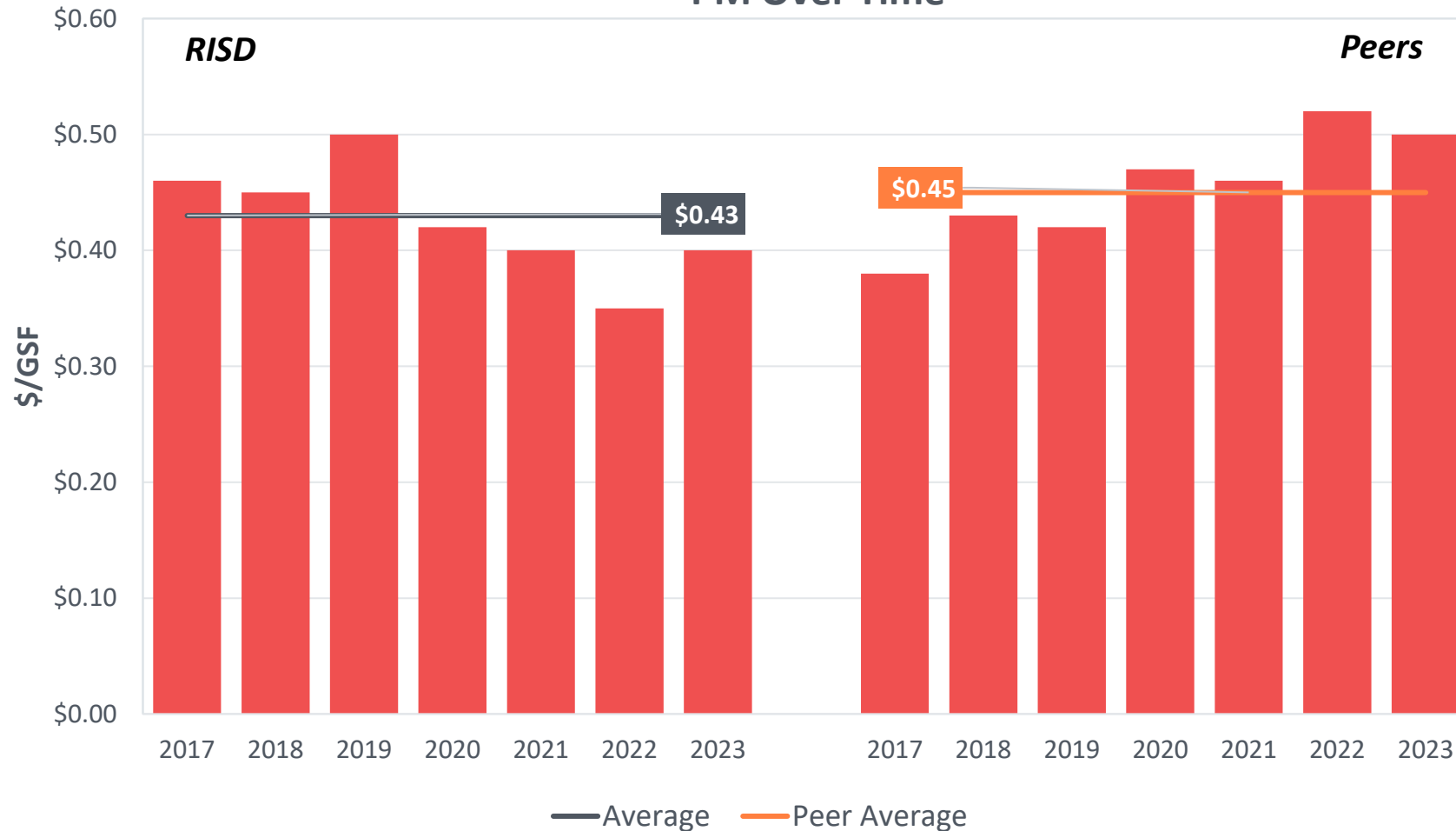
Daily Service and PM resources growing while peers have decreased coming out of COVID



Similar Planned Maintenance Spending to Peers

Focused PM for younger spaces will assist in extending useful life of systems on campus

PM Over Time



Campus Age by Category

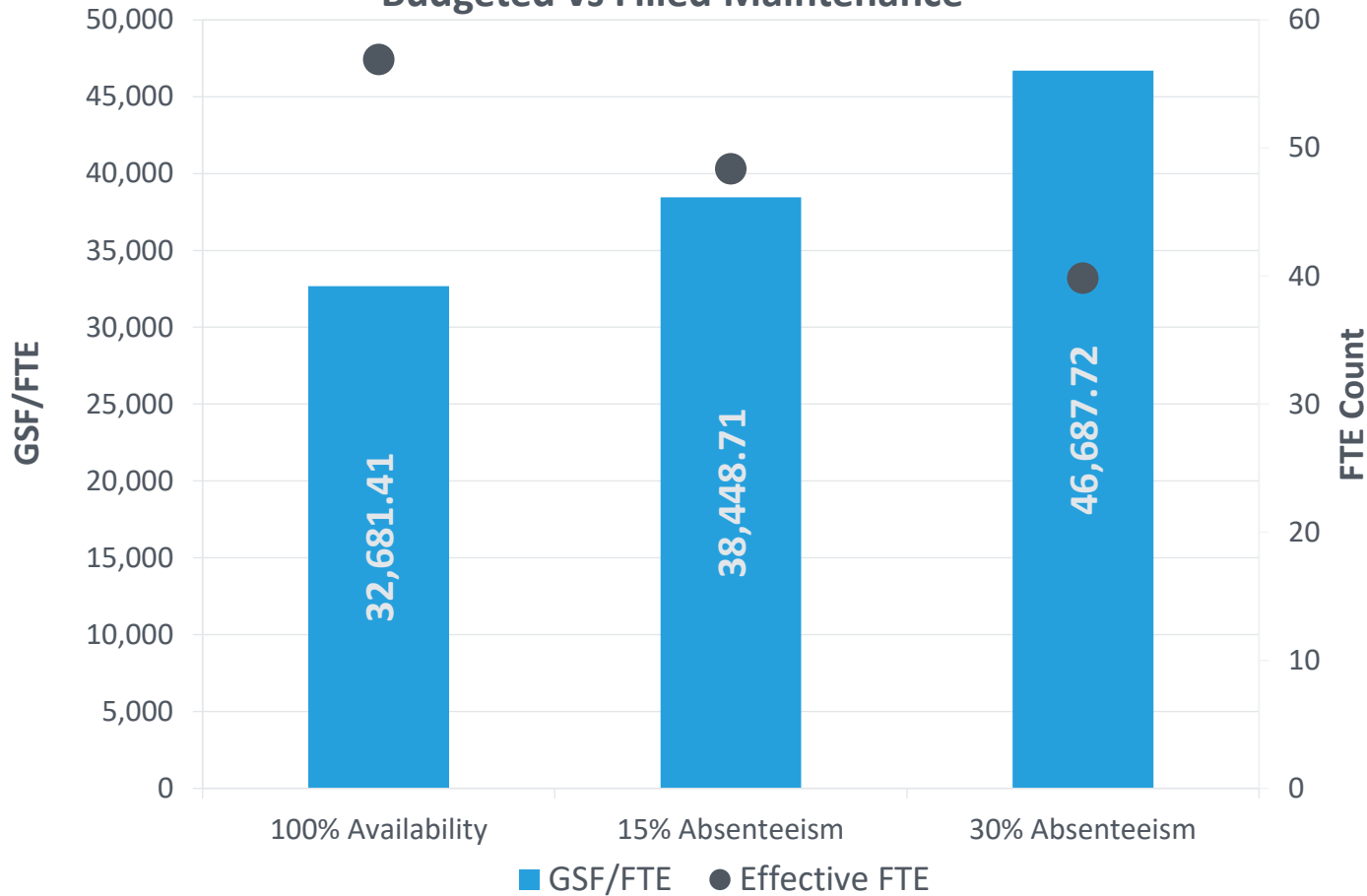


PM: The *materials, labor costs, service contracts*, etc. that enhance or extend the useful life of campus buildings and components. These are things that should be done on a regular (or scheduled) basis so that buildings or components can reach the maximum lifecycle length.

Fewer Available Hands Make for Heavier Burden

Custodial team challenged by absenteeism each day reducing total FTEs truly available

Budgeted vs Filled Maintenance



Peer and Database GSF/FTE

