



DIVISION OF  
CAPITAL ASSET  
MANAGEMENT &  
MAINTENANCE



# American Council of Engineering Companies of Massachusetts (ACEC/MA)

9|8|2017

# What We Do

## ***Capital Planning and Project Delivery***

- Strategic capital planning
- Design and construction for new buildings, major renovations, repairs
- Energy efficiency retrofits and installation of renewables
- Accessibility planning & improvements

## ***Facility Management***

- Property operations, including management of surplus real estate
- Technical assistance for all agencies (training, contracting, and hazmat)
- Space Planning & Interior Design

## ***Real Estate***

- Acquisitions for all agencies, including sites for new buildings
- Disposition of surplus property and leasing/ licensing access to other properties
- Leasing/ Lease Management

## ***Other responsibilities***

- MBE/WBE – statewide goals and compliance on DCAMM projects
- Contractor certification and evaluation
- Emergency waiver requests
- Statewide CAMIS and MAsetts state property inventory report



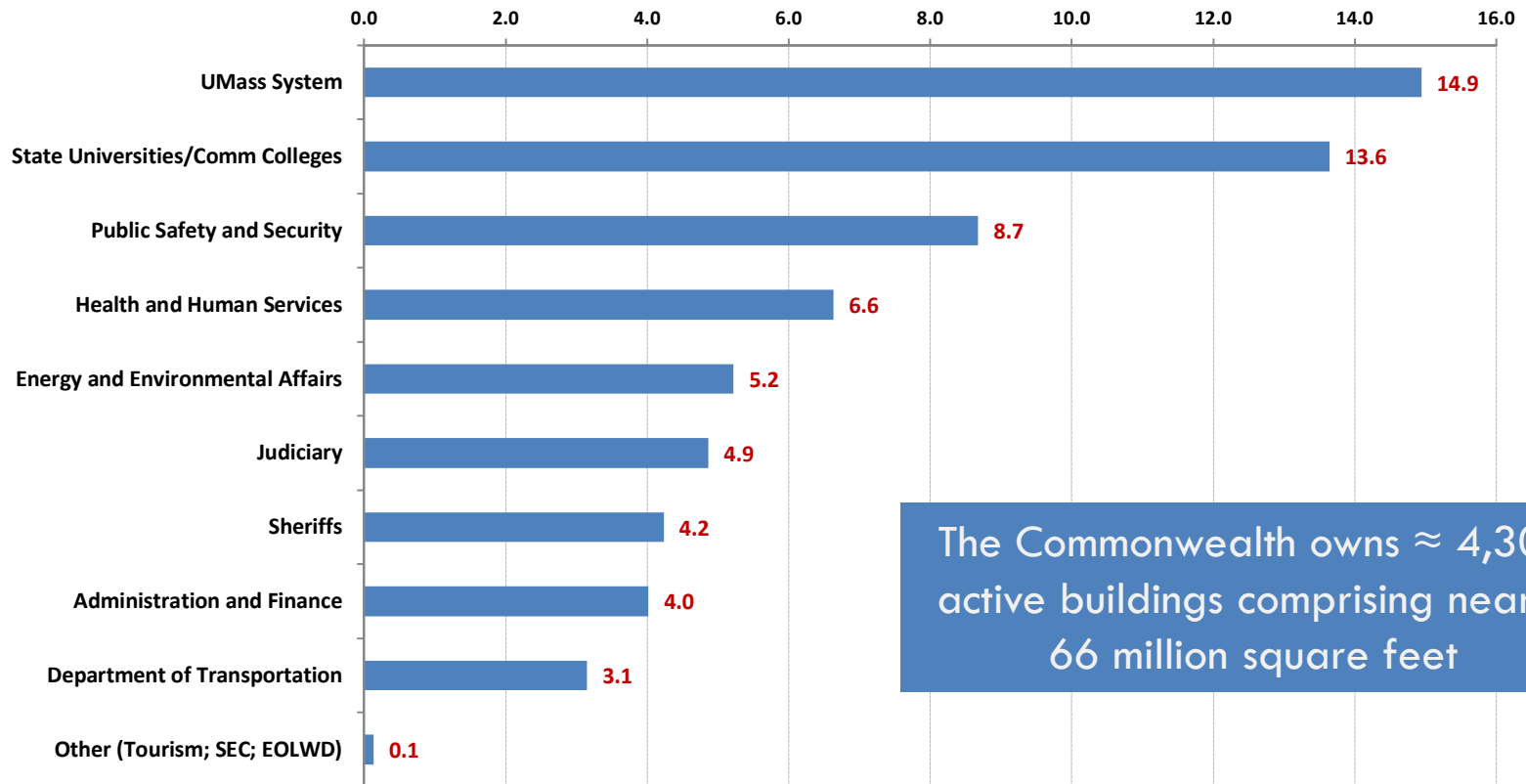
Massachusetts College of Art and Design –  
Center for Design+Media



Salem Trial Court

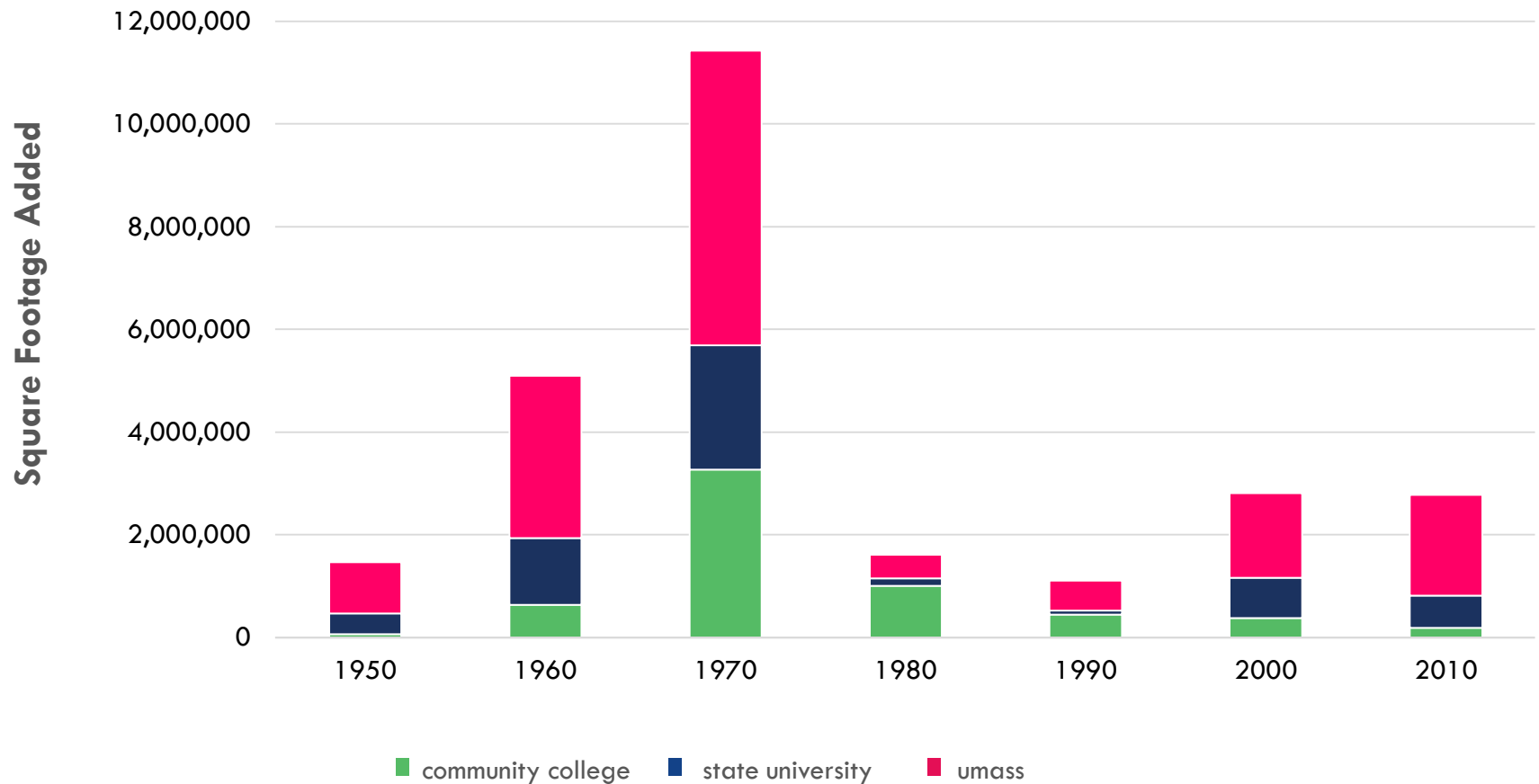
# Portfolio of Active State Buildings

Active Major and Minor Buildings by Program  
(in Millions Gross SF)  
Data as of August 2017



The Commonwealth owns  $\approx$  4,300 active buildings comprising nearly 66 million square feet

## Commonwealth Assets by Date of Construction - Higher Ed E&G Space example

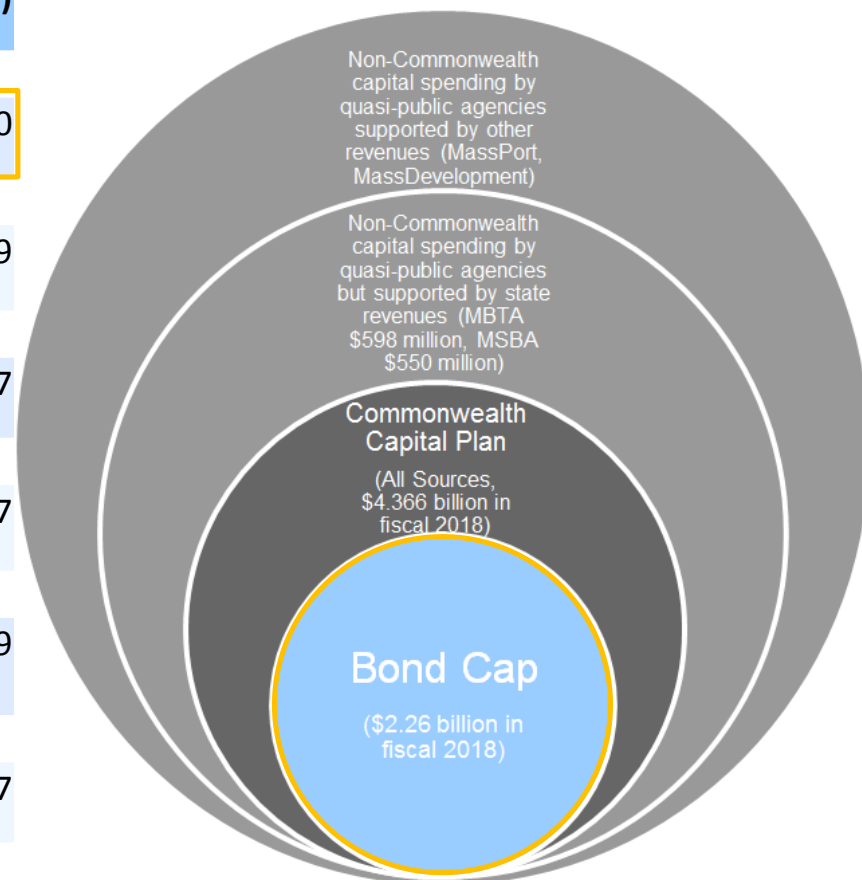


# Baker-Polito Administration Capital Investment Plan Themes



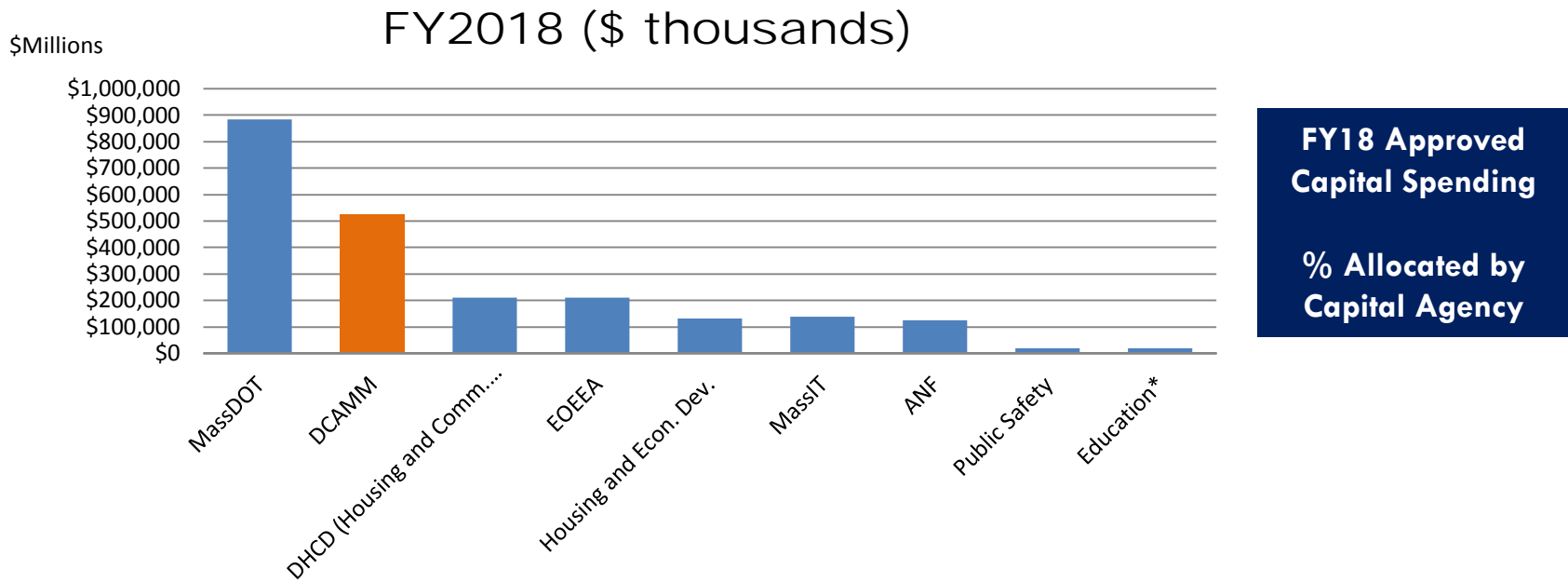
# Funding for the Commonwealth's overall capital plan totals \$4.366 billion in FY2018

Source	FY18 Proposed (\$B)
General Obligation Bonds	\$2,260.0
Special Obligation (CTF) Bonds	351.9
Federal Funds	1,093.7
Project/Self-Funded	63.7
Other Contributions (authority, private, etc.)	326.9
Pay-as-you go (PAYGO)	269.7
<b>FY2018 State Plan TOTAL</b>	<b>\$4,365.9</b>



<http://www.mass.gov/bb/cap/fy2018/dnld/fy18capitalplanma.pdf>

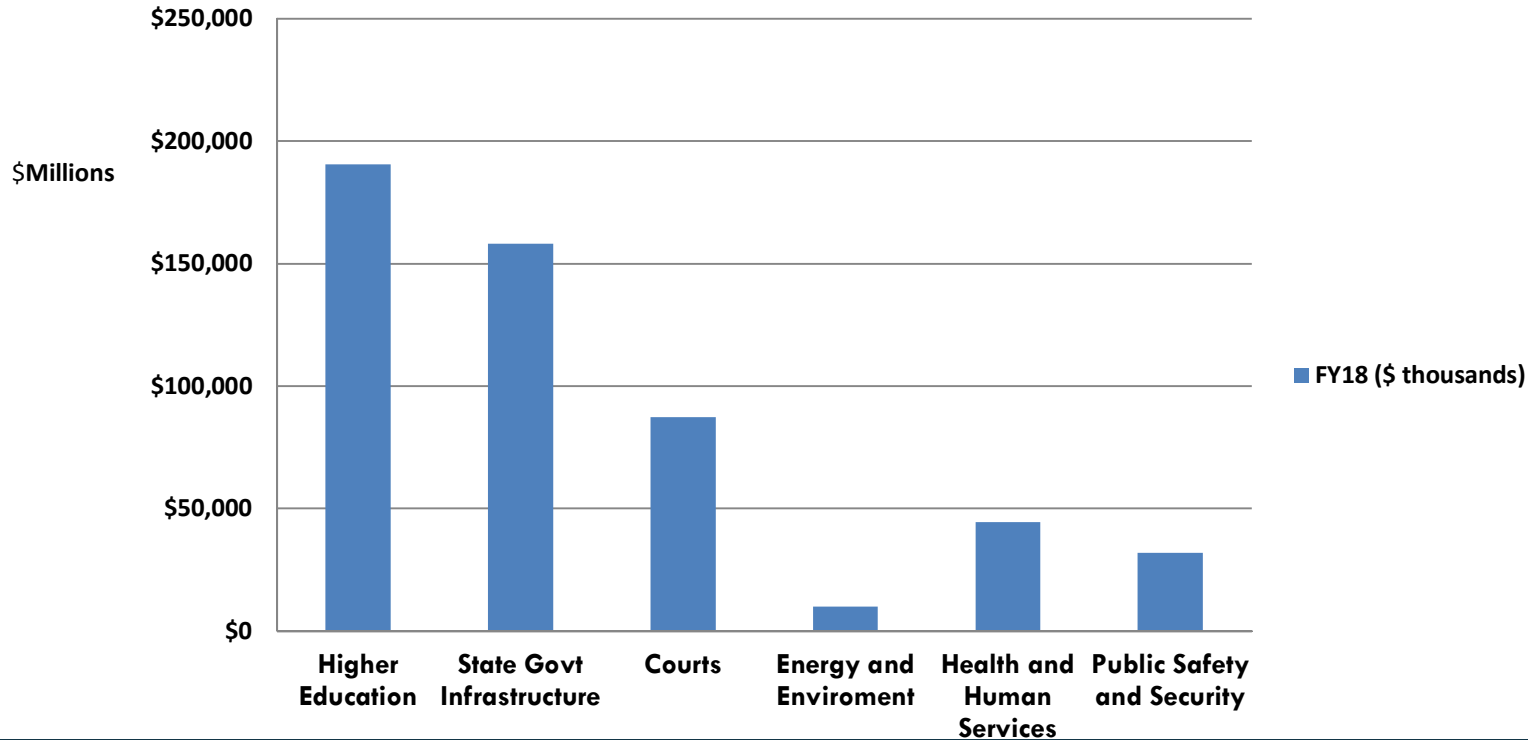
FISCAL YEAR 2018 BOND CAP ALLOTMENT		
CAPITAL AGENCY	FY2018 (\$ thousands)	% Total
MassDOT	\$884,147	39.1%
DCAMM	\$522,509	23.1%
DHCD (Housing and Comm. Dev.)	\$210,807	9.3%
EOEEA	\$210,053	9.3%
Housing and Econ. Dev.	\$131,875	5.8%
MassIT	\$138,496	6.1%
ANF	\$123,889	5.5%
Public Safety	\$19,223	0.9%
Education*	\$19,000	0.8%
Total	\$2,260,000	
* Does not include Higher Education Capital Projects, which are funded through DCAMM.		





# Summary of DCAMM's FY18 Cap Spending by Program

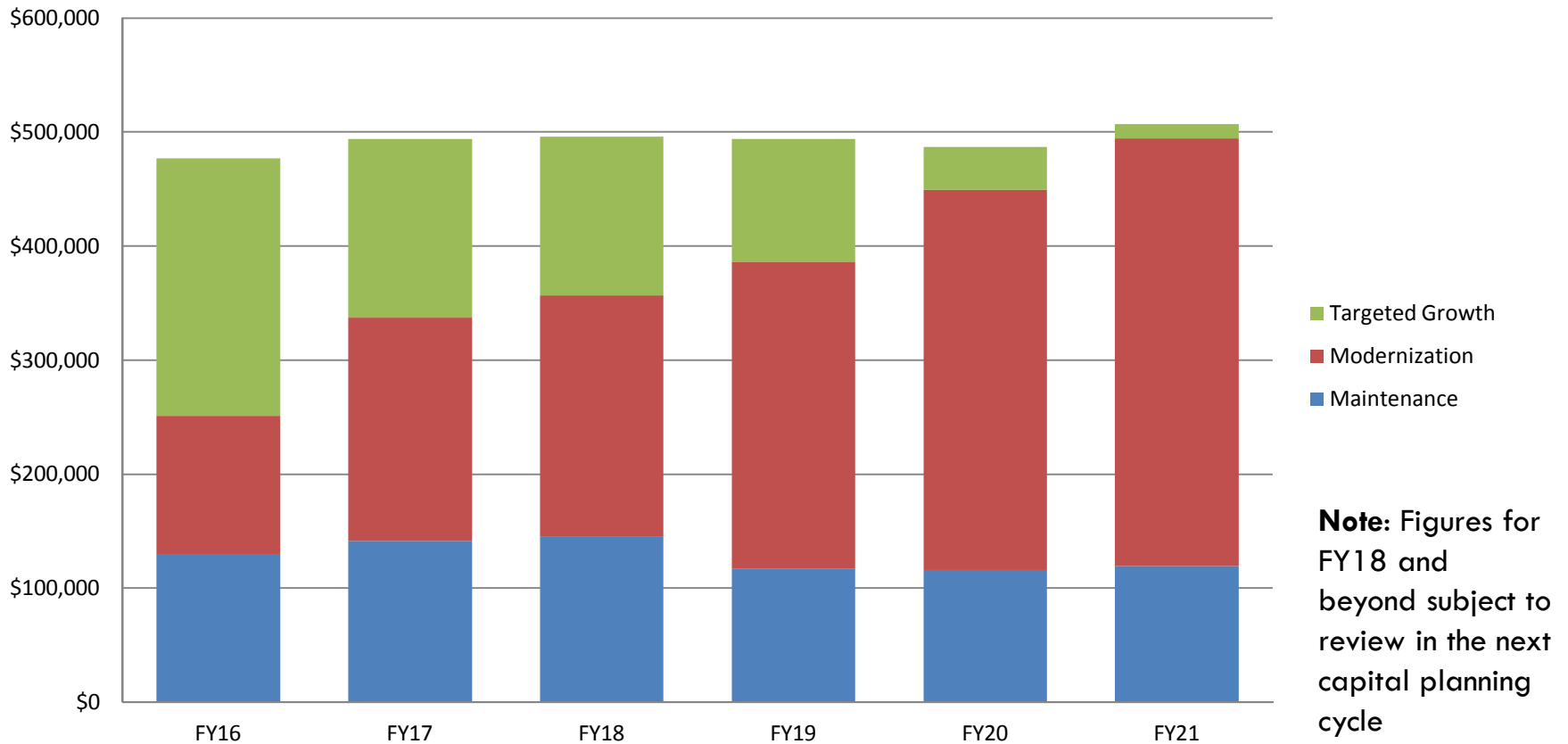
DCAMM FY2018 Approved Capital Spending by Program	FY18 (\$ thousands)	
Higher Education	\$190,480	36.5%
State Gov't Infrastructure	\$158,240	30.3%
Courts	\$87,350	16.7%
Energy and Enviroment	\$10,055	1.9%
Health and Human Services	\$44,535	8.5%
Public Safety and Security	\$31,850	6.1%
<b>Total</b>	<b>\$522,510</b>	





# DCAMM's Capital Program – Looking Forward

## Projected Trends: DCAMM Spending Request by Type (\$000s)



# Agency Priorities

- **Strategic planning**
- **Improving project delivery**
- Focusing facilities management & stewardship role
- **Agency operations & customer service**
- Realizing value from State-owned assets
- Being more strategic in capital planning
- **Sustainability & resiliency**
- Expanding access and opportunity



Mass Art- Center for Design and Media



Taunton State Hospital-Chambers Renovation

# Organizational Chart

**Carol Gladstone**  
Commissioner

**David Abdoo**  
Chief of Staff

**James Henderson**  
Director of Human  
Resources

**Matthew Cocciardi**  
Director of Legislative  
Affairs

**Liz Minnis**  
D/C Planning

- Five-year Capital Plan development and tracking
- Strategic & Master Planning
- Project Feasibility
- Preliminary Design
- DSB Coordination

**Jay Mitchell**  
D/C Design &  
Construction

- Capital Project Design
- Capital project Construction
- Project Controls
- Contracting standards and procedures

**Hope Davis**  
D/C Facilities,  
Management &  
Maintenance

- Building Operations
- Building Systems Engineering
- Energy Programs
- Space Planning & Interior Design

**Beth Rubenstein**  
D/C Real Estate  
Management

- Real Estate Acquisitions & Dispositions
- Leasing Office
- Asset Management Board
- Leases and Licenses of State Property

**Ron Renaud**  
D/C Finance &  
Administration

- Capital Budget
- Operating Budget
- Accounts Payable/Receivable
- Contracting and Procurement
- Contractor Certification
- Access & Opportunity/ Compliance
- Statewide Property Inventory & GIS
- Agency IT Strategy

**Andrea Loew**  
General Counsel

- Legal Support Services
- Emergency Waivers
- Legislation
- Litigation
- Environmental & Permitting Legal Services

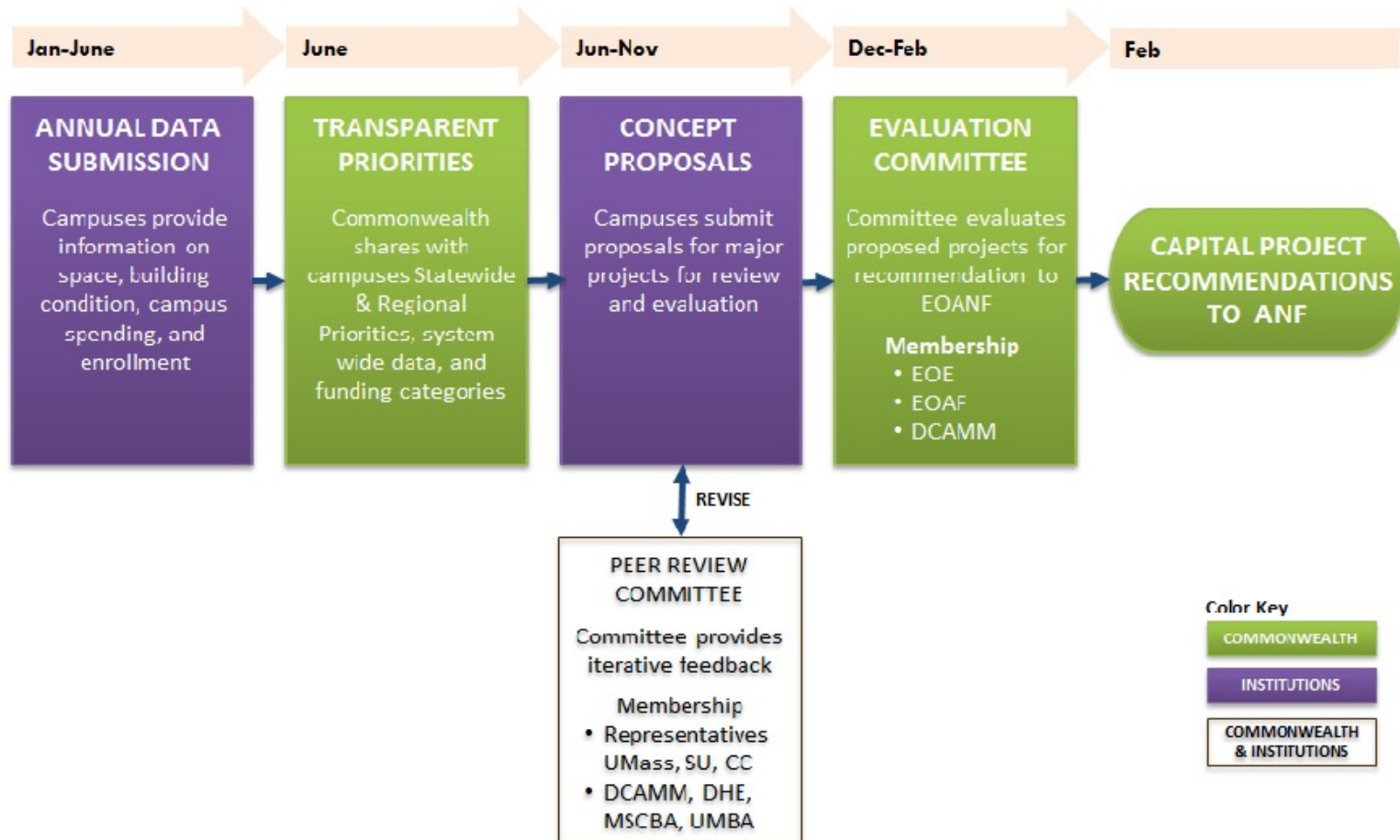
# Improving Project Delivery

- **Organizational Assessment & Change**
  - Small Projects Team
  - Project Controls
  - Planning/Project Delivery
  - Management Training
- **Process Changes**
  - Streamlining Change Orders
- **Digital Initiatives**
  - On-line bidding
  - Electronic Project Management - Prolog
  - Compliance
- **Update to Fee Guidelines – Negotiated Fee**
- **Update Resident Engineer Program**



# Strategic Planning

## Higher Ed Strategic Framework Process



# Strategic Planning

## Trial Courts Strategic Master Plan

Phase 1A: FY18-22				
replaced or expanded facility		facility repairs - (3) levels		
Replacement	Modernization	Renovation 1 (est. \$8-\$15M ea)	Renovation 2 ( est. \$2M-\$8M ea)	Deferred Maintenance (under \$2M)
<u>Building</u> Quincy/Norfolk  <u>Feasibility Study</u> Suffolk Hi Rise S. Middlesex Charlestown	Malden DC Brockton SC Lynn DC Attleboro DC Northampton	Fitchburg DC Framingham DC East Boston Pittsfield DC Hingham DC	Concord DC Cambridge Third West Roxbury South Boston Woburn DC Wareham DC Dudley DC	<u>Envelope</u> (7) projects <u>Life Safety Sys</u> (2) projects <u>HVAC Systems</u> (2) projects <u>Holding/Security</u> (6) projects <u>Cross Circulation</u> M, R1, R2 <u>Egress</u> M, R1, R2
\$150 M	\$150 M	\$70 M	\$55M	\$50M

# Upcoming Planning Projects

- **Projects coming out of Higher Ed Strategic Framework**
  - Concept studies
  - Projects – mostly renovations
  - Potential HD's for institutions – under \$5 M
- **Military Master Plan - Real Estate and Renovations/New Construction**
- **Trial Courts – Renovations/repairs**
  - Planning – Southern Middlesex Courts
- **Human Services:**
  - Low Threshold Housing at Shattuck Hospital site
  - Chelsea Soldier's Home – Campus Planning
  - Shattuck Hospital - Renovations/Replacement
- **Statewide Office Occupancy**
  - Leasing strategy
  - Capital Investment



# Project Controls Group

- **Payments support**
- **Electronic Project Management**
- **Process Change**
- **Budget Management**
- **Schedule Management**
- **Training**



Barbara A. Bates

Jim Styles

Brian McNulty

Nicole Aubourg

Alcina Quach

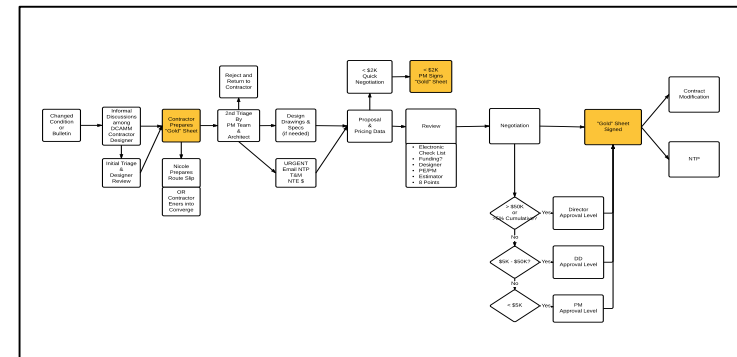
New Hire

# Change Order - Process Changes

- **Weekly Change Order Requests review at job meeting**
- **Changes under \$2K processed by the DCAMM PM**
- **Eliminate NOI and “green sheet” (*changes must be detailed and approved prior to the work being put in place*)**
- **Contractors use Potential Change Order Log to track all PCO’s**
- **PCO’s on Log over 30 days will be expedited for review**
- **Bundling of multiple Change Order Requests into one Change Order when appropriate**
- **Training for all Prime and Sub Contractors for the new expedited Change Order Process.**



Revised CO Process flow chart



# Small Projects Team



## What is a Small Project?

- *A Small Project is any **vertical** construction project at DCAMM capable of being completed on an accelerated timeline.*

### Criteria:

#### **A. SCOPE!!!**

- B. Under \$10 million Estimated Construction Cost
- C. Capable of Completion in 1 year
- D. Constitutes 70-75% (by number) of DCAMM's current portfolio—as of 8/15, 48 projects, \$146M



*Façade, Cupola, Roof Replacement—Blinn Hall, Mass. Maritime Academy*



# Small Projects Team

## How Will the Formation of the Small Projects Team Affect Engineers and Contractors?

- A. Accelerated Decision-Making, Contracting, and Execution—**WE ARE**
- B. Engineers: Be Ready to Work—**YOU ARE (THANK YOU)**
- C. New House Doctors Specifically Assigned to Small Projects – **COMPLETE**



*Taunton State Hospital, Secure Grass Rec Yard for Youth Population.*

# Small Projects Team

## REVISED PROJECT DELIVERY

- A. Project Initiation—TRIAGE**
- B. Single Point of Contact, End-to-End Project Management**
- C. Partnership with Designers and Contractors—ACEC/DCAMM Partnering Meetings, Informational Meetings with Designers, Information in Invitation to Bid Documents of DCAMM Expectations**
- D. Greatest Time Savings in Initiation and Study—Over 1 year**
- E. 75% Improvement in Procurement and Contracting—Decreased time From Invitation to Bid Until NTP To GC From 105 to 45 days; Repeatable, Dependable Process**

**SO.**

**IS IT . . . WORKING?**

# YES! (Would You Like Some Examples?)



## **Armory in Hudson, MA – \$605,000.00.**

Roof Replacement. Study Complete and Certified in 2 months; construction is underway and substantial completion scheduled for **10.5 months** total project duration.

## **McCormack Building – ITD 7<sup>th</sup> Floor Server Room – \$731,492**

Just starting design, transforming this underutilized space into a server room, freeing up space for employee use on the 8<sup>th</sup> floor. Estimated completion date of the project is February of 2018, approximately **11.5 months** total duration.



## **Chelsea, Cooling Tower Repair and Replacement – \$1.0M**

All three cooling towers at critical infrastructure support (Information Technology Center) were in danger of failing. Restoration of 1 tower, repair of other two—projected duration **7 months**.



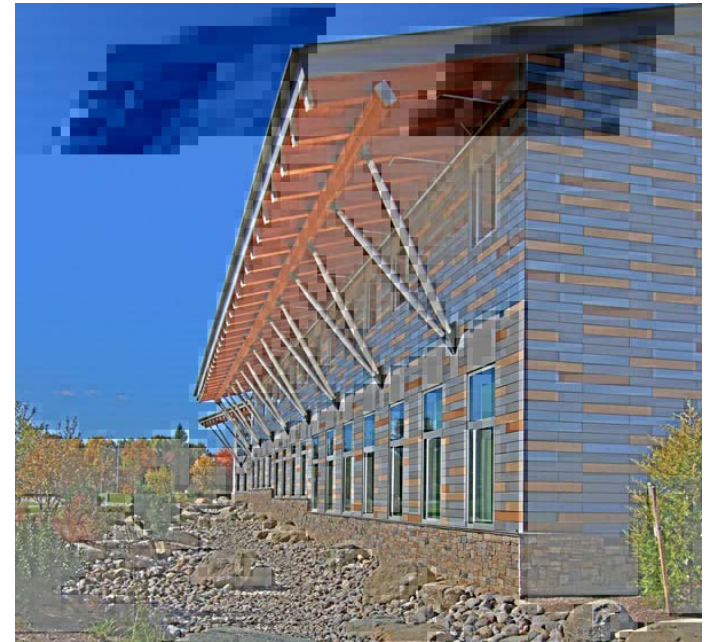
## Digital at DCAMM

- **Online Bid Room – 2016**
  - Web-based, electronic bidding and plans/specs
- **Online Contractor Certification – March 2016**
  - Web-based, electronic certification application
  - Applications processed 33% faster, from 90 to 60 days
- **Online Contractor Compliance – July 2017**
  - Web-based, electronic contract compliance and workforce reporting
  - Streamlined management of M/WBE participation and certified payroll reporting
  - Online training and support
  - Additional communication forthcoming from Access & Opportunity group

# Sustainability at DCAMM

**By embedding sustainable design and construction into the Division's policies, programs and procedures we are leading by example.**

- **High Performance Buildings**
  - 26 LEED Certified buildings (15 Gold & 3 Platinum)
  - Focused on net-zero design where feasible.
  - Using advanced building construction systems and components.
  - Leading by example on GHG reduction and renewable energy goals.
- **Resource Efficiency and Renewable Energy**
  - Commitment to energy and water efficiency projects with over 230 projects completed at 263 sites since 2012.
  - Renewable installations - solar, GSHP, wind, CHP and biomass.
  - Commission building systems to improve performance.
  - Commonwealth Building Energy Intelligence Program.



## Opportunities for Consulting Engineers

- PRF62 facility advisors and House Doctor contracts.
- Design prime and sub-consultants for Chapter 149 and 25A projects.
- Master Service Agreements.
- Operations and maintenance contracts.
- MWBE owned business enterprises.
- Doing Business with DCAMM events.

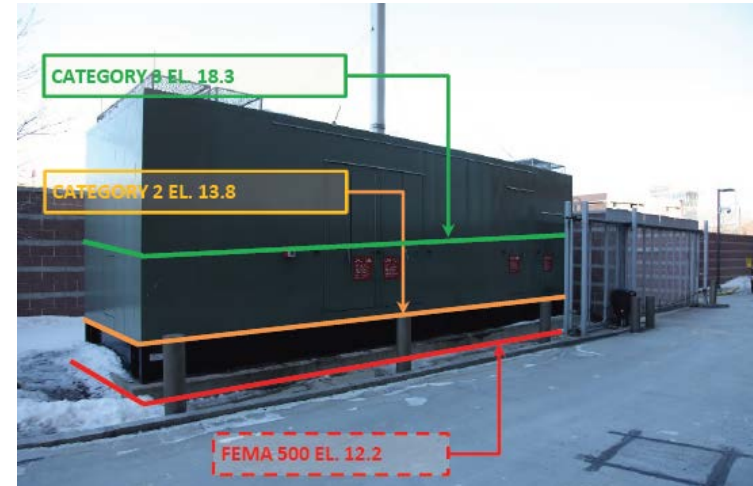
# Resiliency at DCAMM

As climate change increases the severity of heat waves, extreme precipitation, and flooding the risk to DCAMM assets will increase. DCAMM, is already working to identify and address risks to state agencies.

- **Statewide Resilience Master Plan**
  - Partnered with MEMA to execute a master plan and identify risks to critical facilities.
  - Developed an assessment methodology and checklist.
  - Conducted pilot workshops at three key facilities.
  - Identified improvements to DCAMM programs, policies and processes.
- **Resilience Working Group**
  - Representative of DCAMM business units.
  - Will guide implementation of resilience at the Agency.

## Opportunities for Consulting Engineers

- PRF62 facility advisors and House Doctor contracts.
- Design prime and sub-consultants for Chapter 149 and 25A projects.
- Operations and maintenance plans.
- Design and construction document consulting.



Reference Level	Elevation in Feet (NGVD 29) <sup>1</sup>	Relation to First Floor (ft.)
Ground Elevation	12	-
Cat 1 Hurricane at MHHW <sup>2</sup>	10.1	Below ground
Cat 2 Hurricane at MHHW <sup>2</sup>	13.8	1.8
Cat 3 Hurricane at MHHW	18.3	6.3
FEMA 100	10.8	Below ground
FEMA 500	12.2	0.2

Figures 1 and 2: Salem Ruane Judicial Center generator flood susceptibility. MHHW represents Mean Higher High Water level.