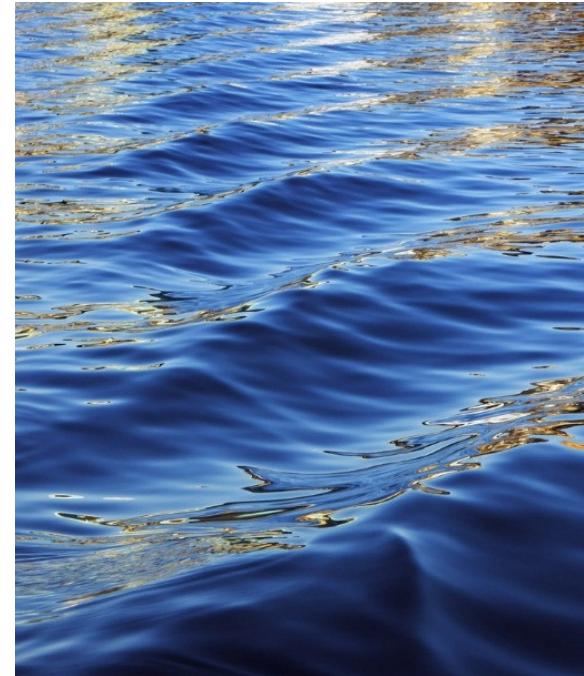


Northeastern University: Programs to Address Waste Disposal Bans (Mattresses and Food Waste)

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Northeastern University

- Urban University / Growing Global Network

- Boston Campus

- 170 acres

- 80 buildings

- 18 million square feet

- Campus Population

- 21,000 undergraduate students

- 17,000 graduate students

- >10,000 students in off-campus housing

- >5,000 faculty/staff

- Suburban Campuses: Burlington, Duxbury, Nahant



Northeastern
University

Facilities Services: Waste and Recycling Division

- Crew of seven – daily collection services (including weekends, holidays)
- Specialty collections – electronics, light bulbs, batteries, move-in/move-out
- Supported by outside contractors: trash, recycling, composting, electronics, lightbulbs, batteries, other
- Work collaboratively with building superintendents, grounds crew, transportation department, dining services, cleaning staff, student groups, and others

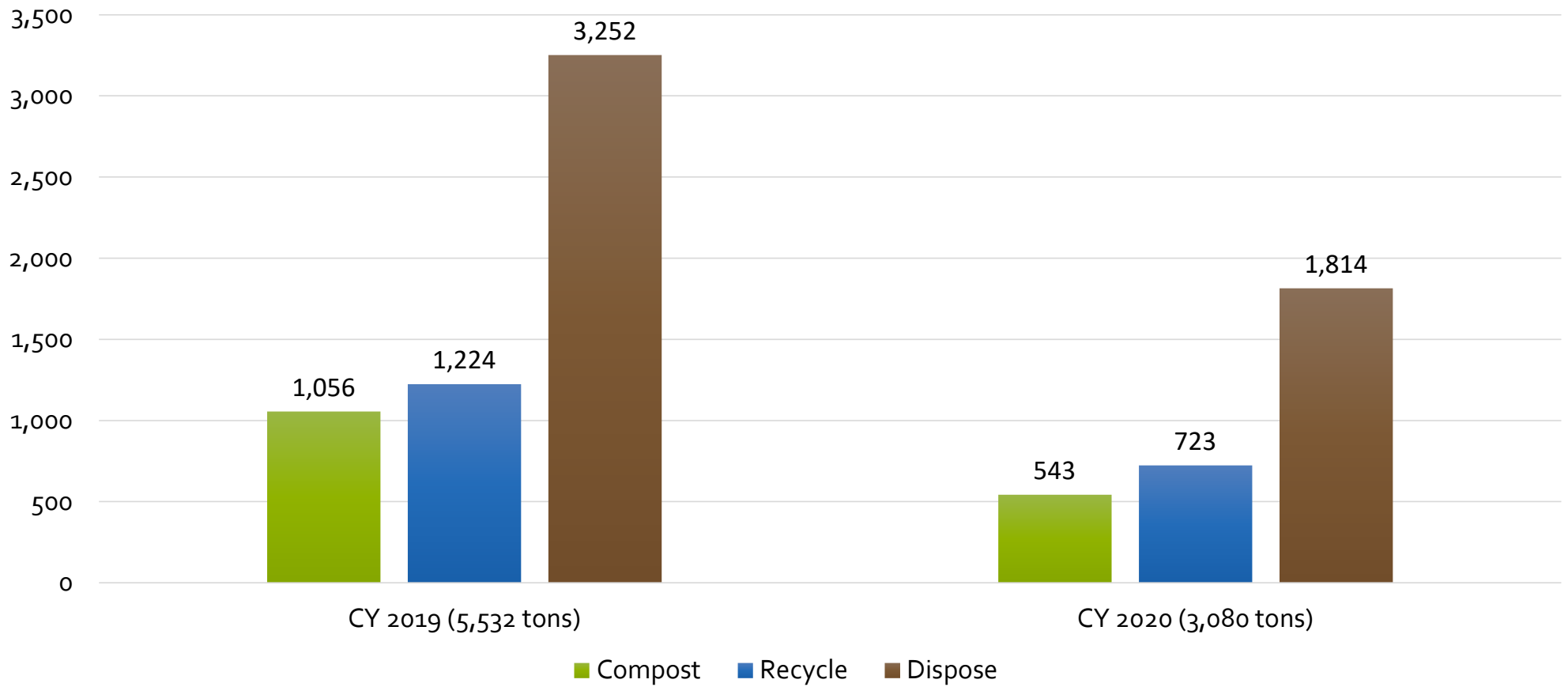


Waste and Recycling Infrastructure

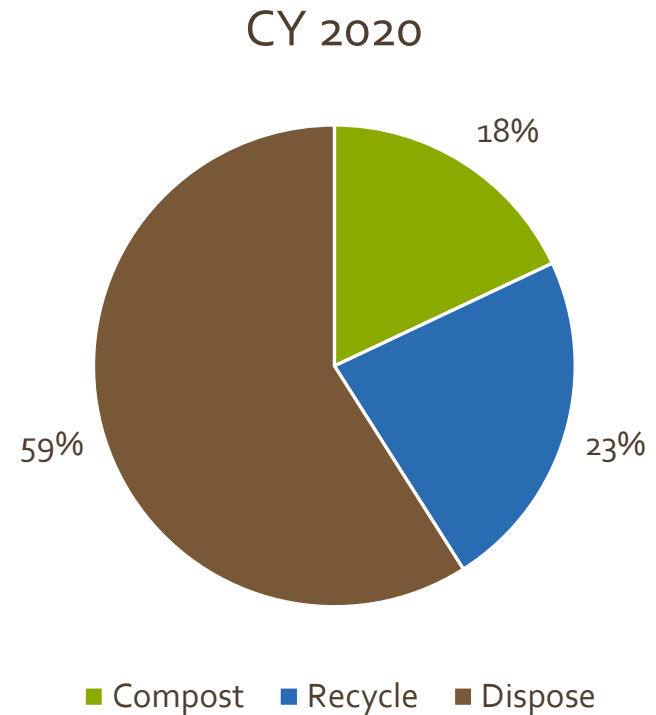
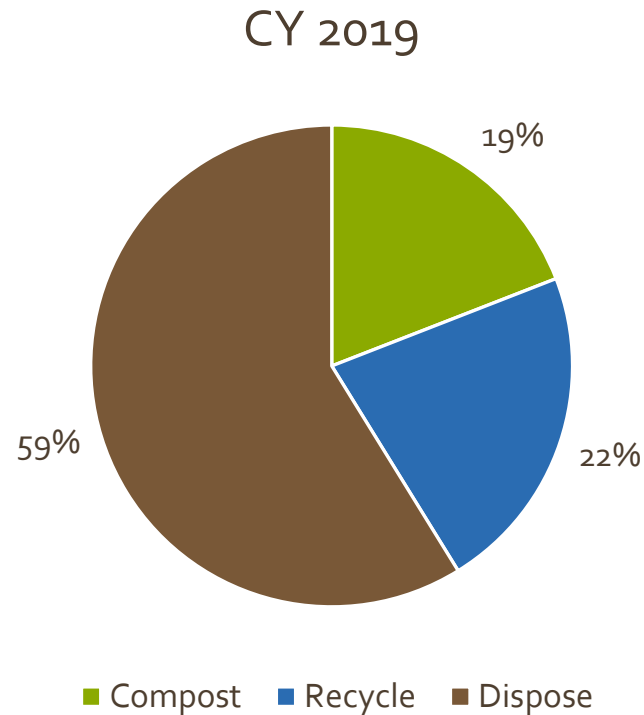
- Daily waste & recycling collection routes (box trucks, packer trucks)
- 22 compactors (17-45 yard capacity)
- Open-top containers (2-30 yard capacity)
- Wheeled carts (hampers) and totes
- More than 400 sets of recycling stations in academic buildings
- Approximately 80 solar-powered waste/recycling bins (outdoors)



Waste Management Practices (tons managed)

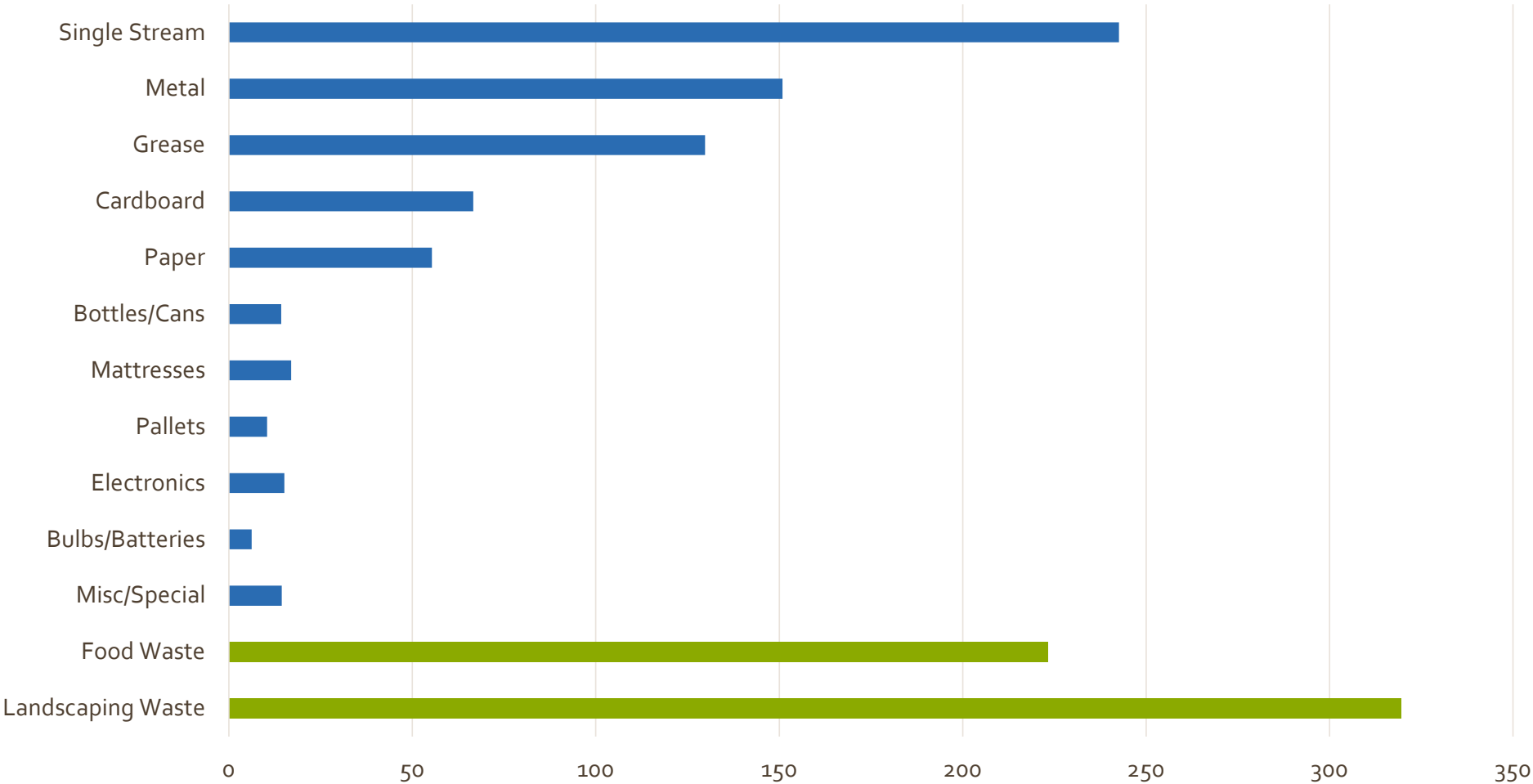


Waste Management Practices (%)

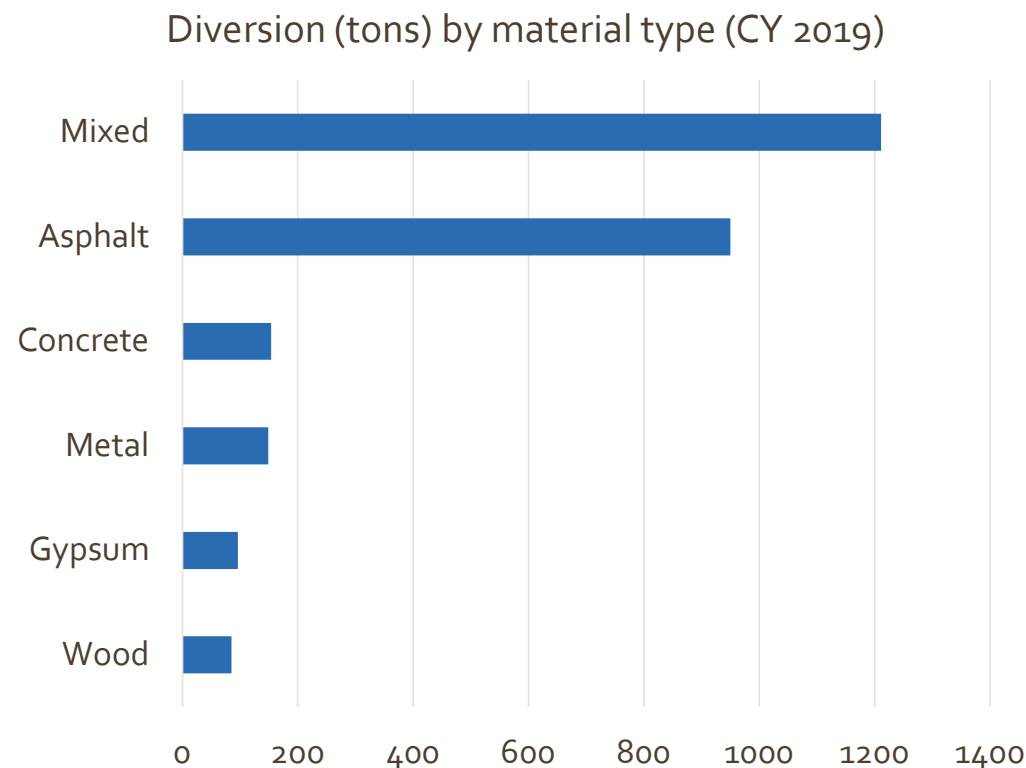
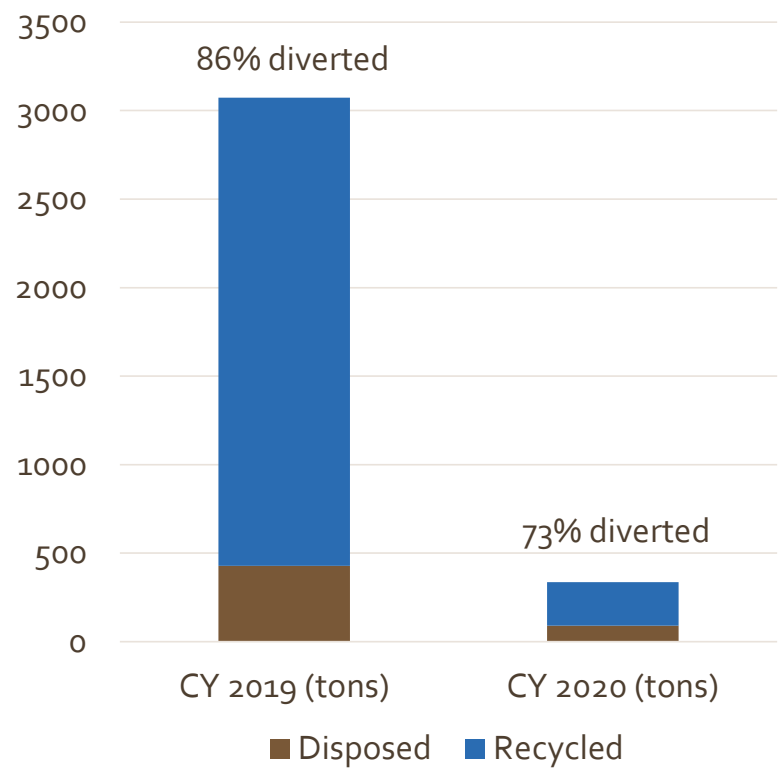


41% of waste diverted from disposal
to composting or recycling

Diversion (tons) by Material Type (2020)



Construction and Demolition Waste



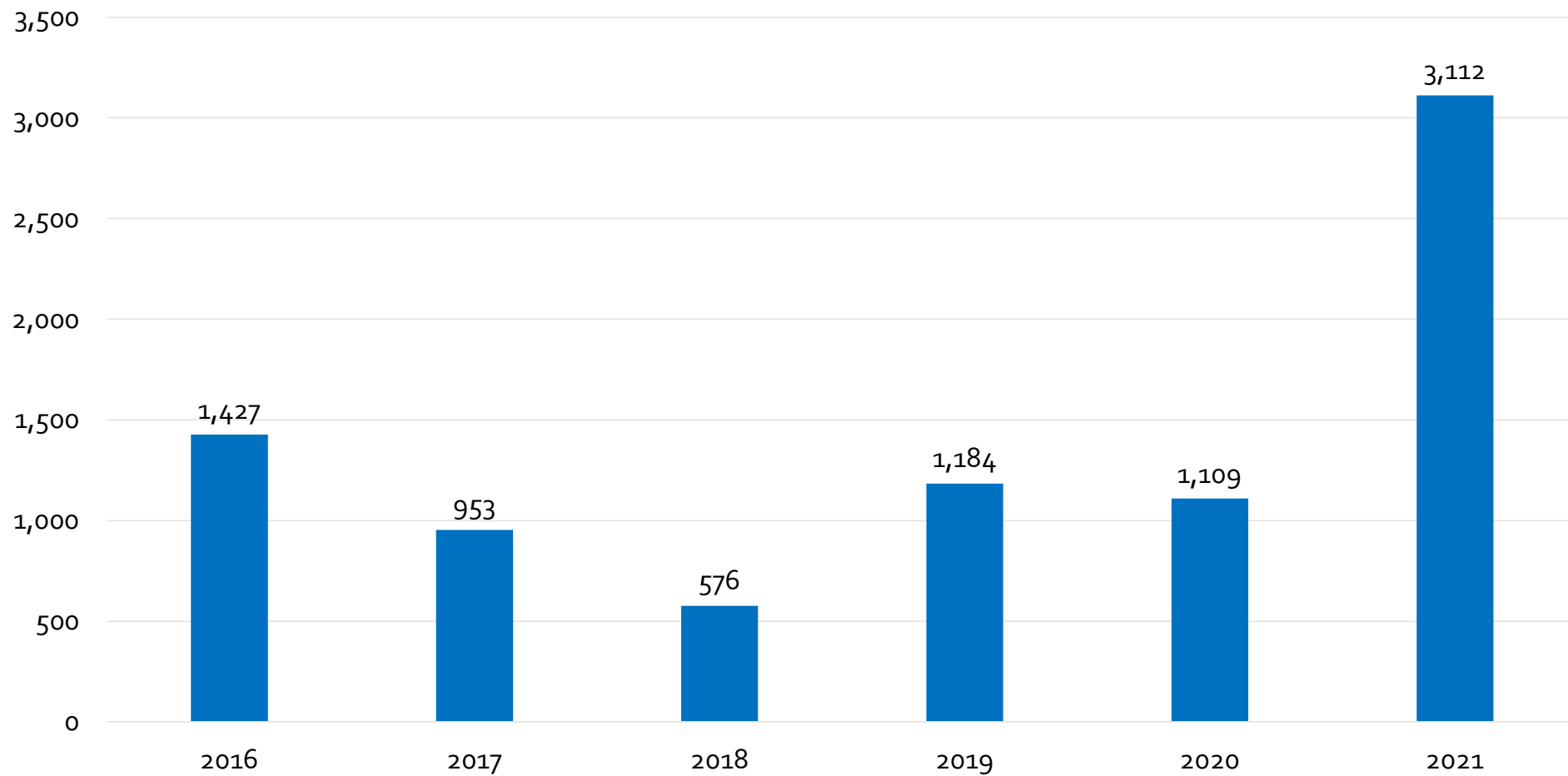
Mattress Recycling

- All dorm mattresses recycled since 2016 (more than 8,300 mattresses)
- Mattress life / replacement schedule
- Collection logistics
 - Timing
 - Storage constraints
 - Vehicle access restrictions
 - Staff resources
 - Vendor resources



All mattresses removed from the dorms are diverted to recycling

Mattresses Recycled (number)



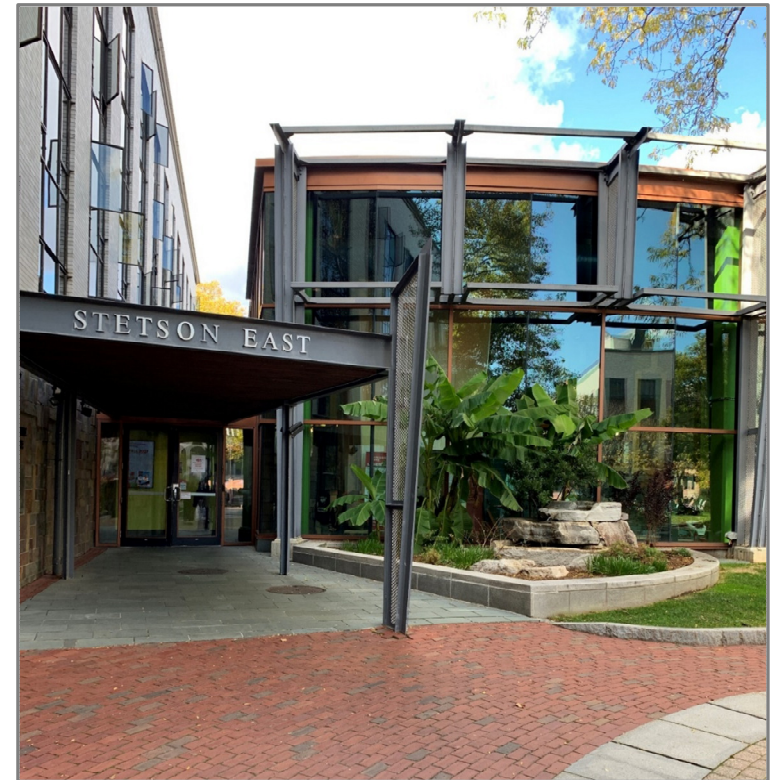
Mattress Recycling – Issues to Address



- Handling abandoned mattresses (illegally dumped)
- Maintaining an efficient and cost-effective program
- Obtaining strong data and metrics
- Ensuring maximum recycling at processing facility

Food Waste Prevention and Management

- Dining halls, eateries, dorms, offices, events
- Menus of Change
 - Sustainable/local sourcing of food
 - “Root to tip” and batch cooking
 - Tracking of waste
- Sustainable dining practices
 - Elimination of trays
 - Reusable and compostable service ware
 - No straws, plastic bags
- Community donations, FeedShare app
- Used vegetable oil to renewable heating oil (LifeCycle Renewables)
- Composting
 - Serving dining halls and major eateries since 2006
 - Expanded to all eateries in 2020



Food Waste Composting

- Ten collection locations
- Kitchen prep waste; limited collection of post-consumer food waste (plate scrape)
- Delivered to land-based composting (Hidden Acres Farm, Medway MA)
- Working to control contamination, including limiting non-food compostable materials
- Focusing on data and metrics
- Exploring options for program expansion





Northeastern

Academic and Service Building

- 66 Alumni Center at Columbus Place (CP)
- 61 Architecture Studio (RG)
- 70 Asian-American Center (AC)
- 68 Badger-Rosen Squash Busters Center (SB)
- 40 Barletta Natatorium (BN)
- 26 Behrakis Health Sciences Center (BK)
- 74 101 Belvidere (BV)
- 51 Blackman Auditorium (AUDL)
- 41 Cabot Physical Education Center (CB)
- 7 Cahners Hall (CA)
- 36 Cargill Hall (CG)
- 72 Catholic Center (CC)
- 54 Churchill Hall (CH)
- 66 Columbus Place and Alumni Center (CP)
- 47 Cullinane Hall (CN)
- 50 Curry Student Center (CSC)
- 6 Cushing Hall (CU)
- 57 Dana Research Center (DA)
- 39 Dockser Hall (DK)
- 43 Dodge Hall (DG)
- 60 Egan Center (EC)
- 52 El Hall (EL)
- 60 140 The Fenway (140)
- 71 Fenway Center (FC)
- 65 Forsyth Building (FR)
- 53 Hayden Hall (HA)
- 10 Hillel-Frager (HF)
- 33 Holmes Hall (HO)
- 46 Hurtig Hall (HG)
- 79 177 Huntington Avenue (177)
- 35 Kariotis Hall (KA)
- 38 Knowles Center (KN)
- 34 Lake Hall (LA)
- 66 Latino/a Student Cultural Center (LC)
- 17 Marino Recreation Center (MC)
- 44 Matthews Arena (MA)
- 29 Meserve Hall (ME)
- 48 Mugar Life Sciences Building (MU)
- 31 Nightingale Hall (NI)
- 27 O'Bryen African-American Institute (AF)
- 78 International Village Administration (INV)
- 77 International Village (INV)
- 63 Renaissance Park (RN)
- 42 Richards Hall (RI)
- 49 Robinson Hall (RB)
- 73 ROTC Office (RO)
- 24 Rydler Hall (RY)
- 30 Stillman Hall (SH)
- 58 Snell Engineering Center (SN)
- 59 Snell Library (SL)
- 37 Stearns Center (ST)
- 23 West Village F, G, H (WV)
- 76 Boston YMCA (BY)

Residence Buildings

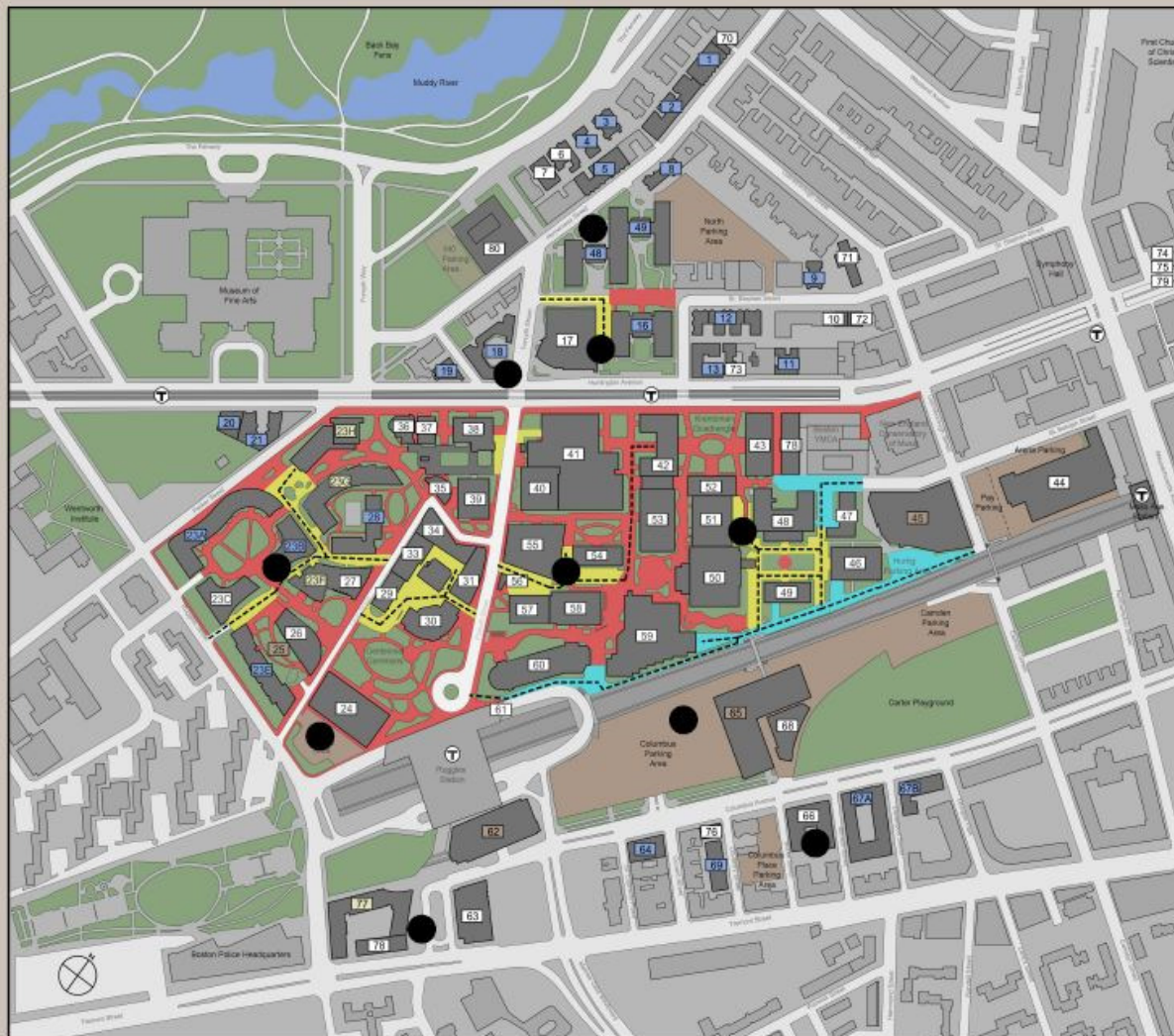
- 21 Burstein Hall (BU)
- 67 Davenport Commons A, B (DC)
- 1 Kennedy Hall (KDY)
- 4 Kerr Hall (KH)
- 12 Levine Hall and
- St. Stephen Street Complex (LVXSSS)
- 9 Light Hall (LH)
- 5 Loftman Hall and
- 153 Hemenway Street (LF)
- 3 Melvin Hall (MH)
- 20 Rubenstein Hall (464)
- 2 Smith Hall (SM)
- 16 Spence Hall (SP)
- 14 Station East (SE)
- 15 Station West (SW)
- 23 West Village Residence Complex
- A, B, C, E (WV)
- 23 West Village Residence Complex
- F, G, H (WV)
- 18 White Hall (WH)
- 25 Willis Hall (WI)
- 69 10 Coventry Street (CV)
- 9 142-148 Hemenway Street (142-148)
- 11 319 Huntington Avenue (319)
- 13 337 Huntington Avenue (337)
- 19 407 Huntington Avenue (407)
- 76 768 Columbus Avenue (768)
- 64 780 Columbus Avenue (780)
- 77 International Village (INV)

Parking Garages

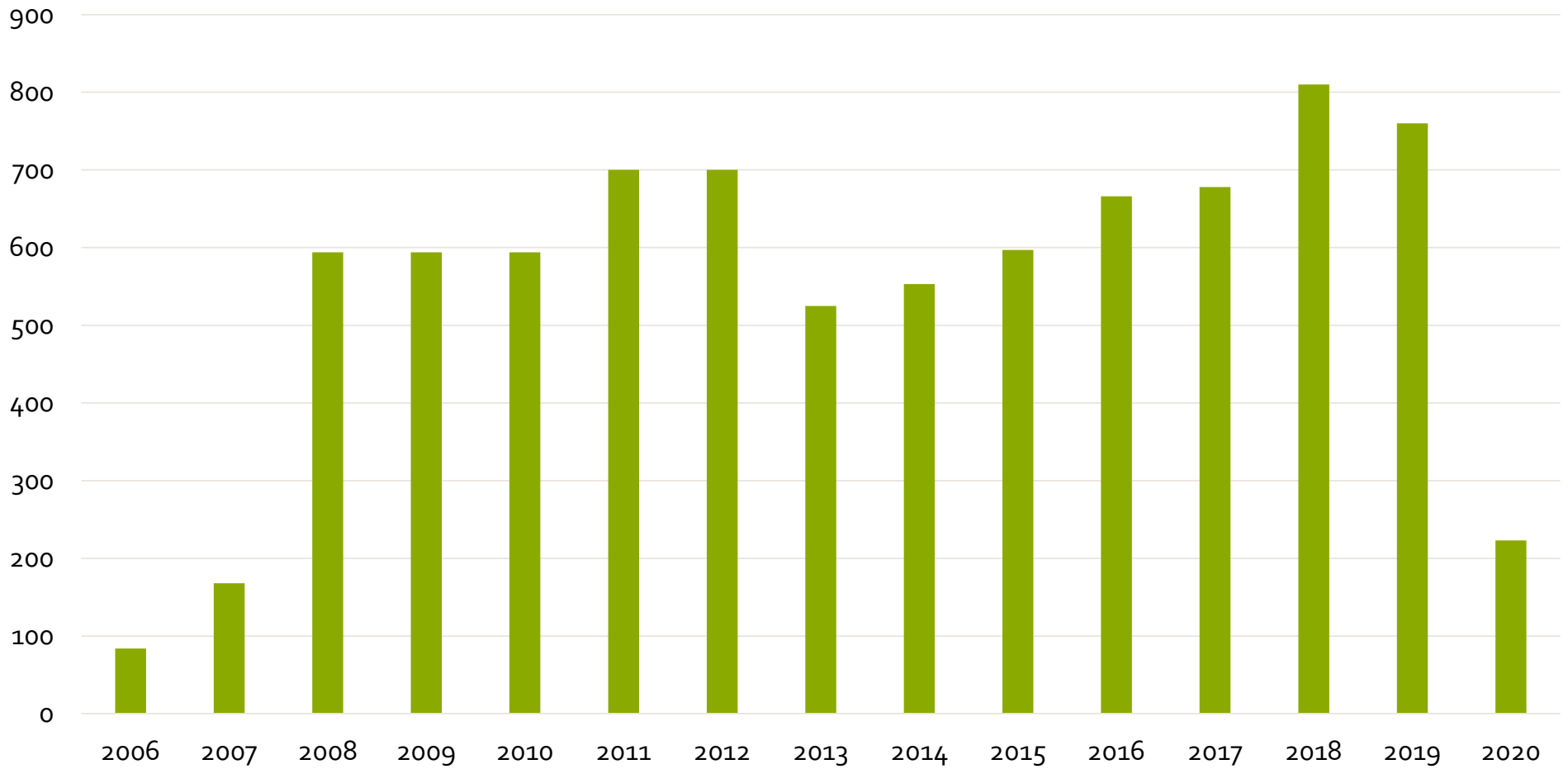
- 65 Columbus Parking Garage (CPG)
- 75 Belvidere Parking Garage (BVG)
- 45 Gainsborough Parking Garage (GG)
- 62 Renaissance Parking Garage (RPG)
- 25 West Village Parking Garage (WPG)

Color Key

- UNRESTRICTED
- RESTRICTED
- PROHIBITED
- PROHIBITED 8AM-5PM



Food Waste Composted (tons)



Composting Challenges



Packaging / Contaminants



Recyclable vs. Compostable



Squirrels!

Representative Signage



Moving Forward: Increased Diversion

Additional
recycling
stations

Increased
outreach and
education

Waste and
recycling
audits

Supplemental
textile
management

Specialty
recycling
programs



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