

Sustainable CU: The Environmental Improvement Initiative

Proposal: Recycling Infrastructure Improvements in the Residence Halls

from

CU Recycling and CU Housing Facilities Services

1. Basic Organizational Information

Established in 1976, CU Recycling is one of the oldest campus recycling programs in the country. The National Recycling Coalition recognized CU's cost-effective diversion of recyclables, promotion of recycling and resource conservation benefits, and opportunities for meaningful individual involvement with its first "Outstanding School Program" award in 1995.

CU Recycling operates as a partnership between students (University of Colorado Student Union) and the administration (Facilities Management and Housing & Dining Services). The UCSU Environmental Center conducts procedural training and promotions, processes collected recyclables, and oversees contracts for the marketing of recyclables. Facilities Management collects from and provides recycling containers in campus buildings; Housing Facilities Services, a division within the department of Housing & Dining Services, manages recycling within the residence halls and assists with outreach in the halls.

Notably, CU's Housing & Dining Services operates outside of the General Fund. That means that Housing & Dining Services receives all of its funding from student residence fees, meal plan fees, and family & staff housing rent.

2. Primary Contact Persons

Rebecca Wallach
Title: Recycling Program Manager
Environmental Center
Phone: 303-492-8308
Fax: 303-492-3244
Email: wallach@colorado.edu

Wendy Nassmacher
Title: Energy, Utilities, Safety, and Security Coordinator
Department: Housing Facilities Services
Phone: (303) 735-0633
Fax: (303) 492-5886
Email: wendy.nassmacher@colorado.edu

Mailing Address:
UMC 355
207 UCB
Boulder, CO 80309

Mailing Address:
3500 Marine Street
451 UCB
Boulder, CO 80309-0451

3. Project Description – Recycling Infrastructure Improvements in the Residence Halls

While CU's recycling efforts in the academic buildings have been extremely successful, recycling rates in the residence halls are not as impressive. A study conducted in 2003-2004 found that 43% of waste is diverted from landfills to recycling in CU's academic buildings, 36% in administrative buildings, 65% in

grounds operations, and only 10-14% in residence halls. Residential recycling rates could and should be improved!¹

Part of the reason that residence hall recycling rates are so low is that students who live in the halls often have little experience being responsible for their own trash and recycling and traditionally have little incentive to separate recyclables out of their trash. Furthermore, carrying their own trash and recyclables out to bins on the building docks is not something that comes naturally. Experience has shown that recycling containers must be conveniently located – and that they must be co-located with trash receptacles – in order to achieve reliable participation from the students.

Housing Facilities Services supports the expansion of recycling efforts in the residence halls. However, the recycling effort, while morally right, does not return any moneys to Housing and makes little difference in trash tipping costs. Because the department of Housing & Dining does not receive General Fund moneys, it is difficult for the department of Housing & Dining to justify the cost of capital improvements designed to increase the ease of recycling.

Therefore, CU Recycling and Housing Facilities Services propose the use of \$12,870 from Sustainable CU for infrastructure improvements in the residence halls to facilitate student access to recycling. This money will be used to reconfigure the Libby dock to make recycling easier and to complete the restructuring of the Stearns dock.

4. Project Scope and Timeline

This proposal is divided into two specific projects meant to improve the convenience of recycling for students, while also streamlining Facilities Management's cost in picking up recyclables.

4.1. Libby Dock Reconfiguration

The first project is reconfiguring the Libby dock to make recycling easier. The rear (south) student exit from Libby Hall is now just west of the dock area, while all of the recycling bins are located on the far east side of the dock. (Please see Exhibit A, attached.) This proposal will allow for a reconfiguration of the dock as follows:

- i. The staircase which descends from the dock will be turned 90° so that the stairs descend into the docking area instead of the sidewalk. The space formerly occupied by the stairs will be used to house recycling polycarts. (Please see Exhibit A, attached.)
- ii. Cardboard recycling and a dumpster will be placed along the walkway that runs from north to south along the west side of the dock area so that students can take out their trash and recycling as they exit the building.
- iii. A trash dumpster, composting receptacle, and cardboard bin will remain in place at the dock itself for Dining use.

Prior to scheduling the Libby dock reconfiguration, a consultative process will be followed to ensure that the final dock configuration meets the needs of Dining Services (food deliveries), the Hall Manager, and Facilities Management (trash and recycling pick-up).

The timeline for completing the renovation of Libby doc is approximate. The consultative process will be carried out over four weeks to ensure that the needs of all parties using the dock have been adequately

¹ The 2003-2004 UCSU Environmental Center Recycling Diversion Study is available by contacting Rebecca Wallach, Recycling Coordinator, at the Environmental Center.

met. The actual work of reconfiguring the dock will take two weeks once the contractor is scheduled. The work will be completed on weekends, over the course of at most two weekends.

4.2. Stearns Dock Reconfiguration

The second part of this proposal involves completion of the restructuring of the dock at Stearns Hall. Williams Village has been selected to pilot a movement combining all grades of recyclable paper into one bin. So while office-grade paper is currently separated from newsprint on most of campus, in Williams Village all fiber products are placed in a “Mixed Paper” bin. The goal of combining the paper grades is to make recycling more convenient and thereby increase participation rates.

As part of this pilot project, recycling stations were created outside of Stearns and Darley Towers in Williams Village. A large recycling station was created just north of the Stearns dock on what used to be a bicycle pad. (See Exhibit B, attached).

Access to this bicycle pad is limited, as student parking borders all but a six-foot curb area. While Facilities Management has been able to temporarily access the polycarts placed on the bicycle pad by getting out of their truck and wheeling all the carts out to their truck, this is not a feasible long-term solution due to the amount of time required to complete the hand-loading operation.

In addition, the goal is to have cardboard bins as well as a conventional dumpster in place with the recycling polycarts. With the current parking and curb configuration, Facilities Management will be unable to service dumpsters located on this new recycling pad. Facilities Management will also have difficulty servicing cardboard dumpsters.

If trash dumpsters are not placed next to the recycling bins, experience has shown that trash will end up in the recycling bins and recyclables will end up in the trash. This is because students will go out with trash and/or recyclables in hand and dump them in whatever receptacle is most convenient unless the correct bins are obvious and conveniently co-located.

In order to complete the reconfiguration of the Stearns dock, Housing Facilities Services must obtain from Parking Services the two parking spaces located just east of the new recycling station. (See Exhibit B, attached.) Housing Facilities Services will need to reimburse Parking Services for these two spots. These two spaces will be converted into a truck access ramp.

Completing the reconfiguration of the Stearns dock will take only a few days once permission is obtained for CU’s Parking Services to “purchase” or “rent” the two parking spots in question. The curb for those two spots will then be reconfigured to eliminate the possibility of parking and to facilitate truck access.

5. Detailed Project Budget

- a) Reconfiguring of the Libby dock to begin in October and conclude within two weeks.
 - i. Anticipated cost to cut the Libby dock concrete, pour new stairs and curbs (see Exhibit C: Bid Sheet, attached): \$14,270
 - ii. Purchase of an additional dumpster \$600
 - iii. Cost share: Housing Facilities Services (5,000)
 - iv. Net cost requested from Sustainable CU \$9,870
- b) Restructuring the Stearns dock to be completed in November.

- i. Two parking spaces (cost set by CU Parking Services)..... \$1,000²
- ii. Transform parking spaces into trash and recycling truck access ramps \$2,000
- iii. Transform bicycle parking platform to serve as an efficient and complete recycling station for the residents of Stearns Hall: no further cost.³

BUDGET TOTAL \$12,870

6. Environmental Impact

Recycling has an immediate positive environmental impact by diverting waste from local landfills. In addition, encouraging recycling in the residence halls has the added benefit of helping students form habits and positive opinions about recycle that could influence their behavior for the rest of their lives. Currently, the residence halls enjoy only a 10-14% diversion rate – that means that 86-90% of the waste generated in the residence halls is still going into landfills compared to a 36-43% diversion in the academic and administrative buildings.

In order to increase these rates, CU Recycling has found that recycling containers need to be conveniently located, and in addition, they need to be co-located with trash receptacles. This proposal will make recycling easier for students and will therefore increase diversion rates, a positive environmental benefit. This fits with the fourth goal in the *CU Blueprint for a Green Campus*: to green campus consumption and disposal habits.

7. CU Quality of Life

Students in the residence halls have resisted recycling mainly for reasons of convenience. By reconfiguring the Libby and Stearns docks, recycling becomes more convenient for the students in those halls. In addition, the new dock configurations are aesthetic and facilitate the use of the dock for deliveries and pick-ups beyond trash and recycling.

8. Saving Money

This proposal will save CU housing money by two means: first, by increasing the amount of recycling and second, by decreasing the labor and resultant cost required for Facilities Management to pick up the recycling.

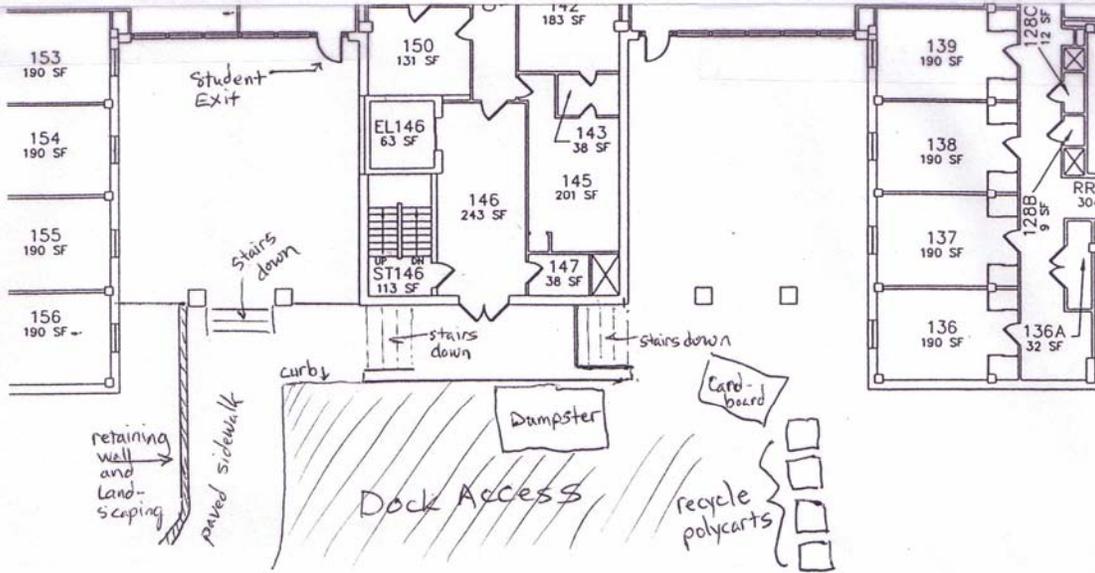
9. Project Longevity

The reconfiguration of Libby and Stearns docks are long-term capital improvements that will benefit Housing and CU Recycling for years or even decades to come. Training CU students to recycle will benefit the environment for generations.

² This fee is an estimate: Parking Services will charge Housing Facilities Services for the lost value of using the two parking spaces for student parking. In addition, this amount will be charged to Housing Facilities Services ANNUALLY. Thus the request for one-time support from Sustainable CU represents only a fraction of the ongoing cost/value of maintaining access to this recycling dock, which cost will be born by Housing Facilities Services.

³ Housing Facilities Services has already paid \$16,000 toward the reconfiguration of the Williams Village area and the Stearns dock to facilitate recycling there. To date this has included moving the bicycle storage racks (located near the new recycling station), cutting the existing curb to facilitate Facilities Management access to the polycarts, and pouring a new concrete curb that allows easy wheeling of polycarts to the Facilities Management truck.

Exhibit A: Libby Dock Current Configuration and Proposed Modifications



Libby Dock Current Configuration ↑

↓ and Proposed Modifications

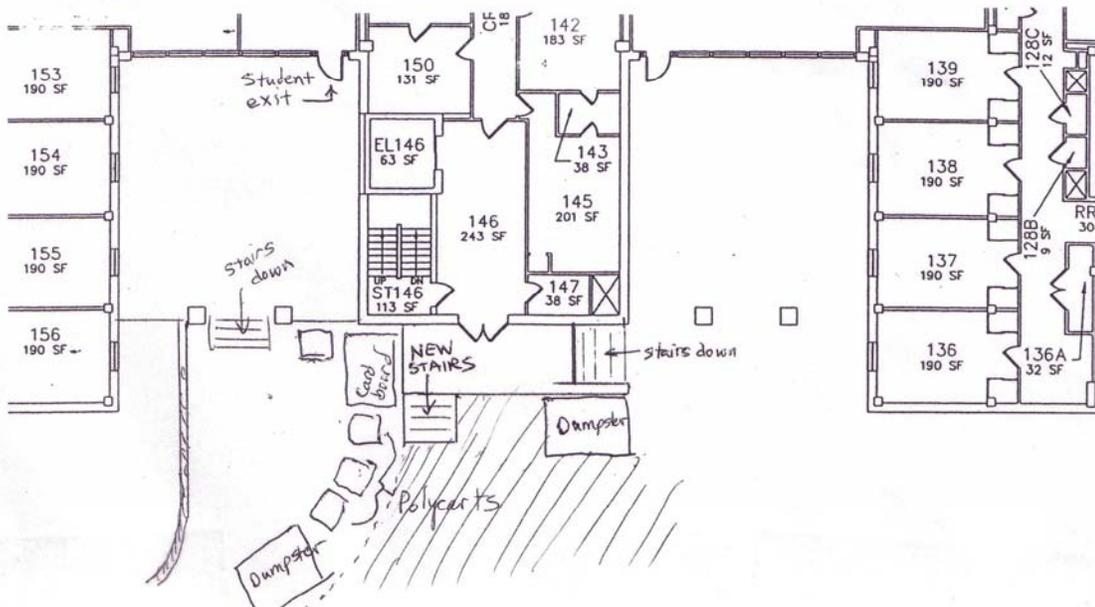


Exhibit B: Stearns Dock & New Recycling Station Showing Necessary Access Points

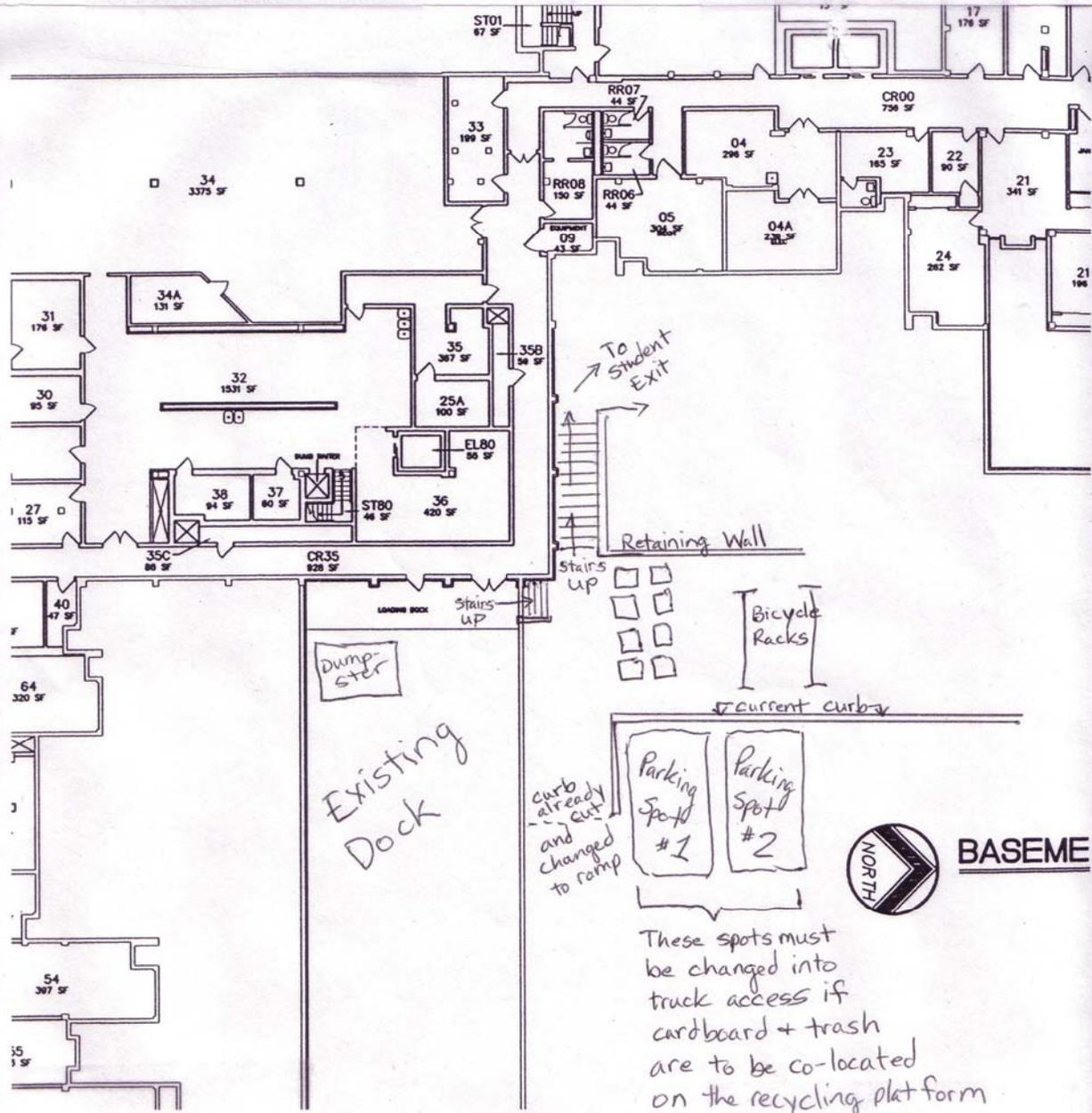


Exhibit C: Libby Dock Bid Sheet

CONCRETE WORKS By Mike

BID

Mike Velasco
275 E Costilla Ave
Centennial, CO 80122
Phone: 303-204-5300
Fax: 303-470-0281

Date: 09/07/2005

To:
Don Seeley
University of Colorado at Boulder
3500 Marine St., 160 UCB
Boulder, CO 80309-0160
Phone: 303-492-6067
Fax: 303-492-5886

Job Description: Relocation of Loading Dock Stair at Libby Hall

- | | |
|---|-------------|
| 1. Removal of existing stair..... | \$ 5,250.00 |
| 2. New stair concrete placement – South facing..... | \$ 7,220.00 |
| 3. Concrete walls with overhead slab..... | \$ 1,800.00 |

TOTAL JOB COST.....\$ 14,270.00

Notes:

- Weekend work scheduled.
- Any discrepancies to be directed to Don.
- Removal and replacement of existing handrails to be done by others.
- Price is subject to change if rebar needs to be epoxy coated.

Thank you for choosing Concrete Works by Mike for your concrete jobs.
We look forward to working with you!