2011
RUDY BRUNER AWARD
PROJECT DATA

RUDY BRUNER AWARD
FOR URBAN EXCELLENCE

PROJECT DATA

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

NOTE: This sheet and a selected image will be sent to the Committee in advance.

Project Name Learning Landscapes Location Denver, Colorado

Owner Denver Public Schools

Project Use(s) Elementary Schools, Neighborhood and Community Parks

Project Size Approx. 98 District Wide Elementary Schools Total Development Cost $49,000,000

Annual Operating Budget (if appropriate)

Date Initiated Summer 1998 Percent Completed by December 1, 2010 85%

Project Completion Date (if appropriate) Summer 2012

Attach, if you wish, a list of relevant project dates

Application submitted by:

Name Lois Brink / Christopher Schooler Title Executive Director / Senior Research Associate

Organization Colorado Center For Community Development

Address City/State/Zip Denver, CO. 80217

Telephone (303) 315 - 5861 Fax (303) 315 - 5872

E-mail Weekend Contact Number (for notification):

Perspective Sheets:

Organization Name Telephone/e-mail

Public Agencies Please see attached form for all perspective contact information

Architect/Designer

Developer

Professional Consultant

Community Group

Other

Please indicate how you learned of the *Rudy Bruner Award for Urban Excellence*. (Check all that apply).

- ☐ Direct Mailing
- ☐ Magazine Announcement
- ☐ Previous Selection Committee member
- ☐ Other (please specify)
- ☑ Professional Organization
- ☐ Previous RBA entrant
- ☐ Online Notice
- ☐ Bruner/Loeb Forum

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, and to post on the Bruner Foundation web sites, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Date December 10, 2010

2011 RUDY BRUNER AWARD PROJECT AT-A-GLANCE

RUDY BRUNER AWARD

FOR URBAN EXCELLENCE

PROJECT AT-A-GLANCE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

NOTE: This sheet and a selected image will be sent to the Committee in advance.

Project Name: Learning Landscapes - Colorado Center for Community Developement

Address: Campus Box 126 PO Box 173364 City/State/ZIP: Denver, Colorado 80217

1. Give a brief overview of the project.

Learning Landscapes is a system of vibrant, active and highly used comprehensive urban schoolyards designed, developed and maintained by a forward-thinking partnership between the University of Colorado and Denver Public Schools. In the mid 1990's, federally mandated busing was lifted from Denver Public Schools and children once again began attending schools in their own neighborhoods. One result was greater awareness of the degradation of the local neighborhood schoolyards. The University of Colorado launched Learning Landscapes as a program to convert once-desolate public schoolyards into mini-parks that welcome the community after hours and facilitate both learning and play. Today, this ten-year-old $45 million program has transformed over 81 schoolyards serving over 37,000 students daily and countless Denver families after school and on weekends. The popularity of Learning Landscapes inspired broad public support and the public financing necessary to scale this model to every elementary school playground in Denver. Learning Landscapes works from a multi-disciplinary platform to build sustainable, healthy communities by developing partnerships along the way and by designing and constructing schoolyard environments that contain a range of opportunities or affordances for healthy living. Programmatic elements common to each site include grass play fields, age-appropriate play equipment, natural play areas, running tracks, shade trees, shade structures, community gateways and gathering spaces, vegetable gardens, public art work, and traditional play elements such as basketball courts, four-square, etc. In addition, these urban spaces are designed to celebrate unique cultural and historical characteristics of each neighborhood and school they serve. The average construction cost of each project is approximately $450,000 with funding derived from a variety of public and private sources.

2. Why does the project merit the *Rudy Bruner Award for Urban Excellence*? (You may wish to consider such factors as: effect on the urban environment; innovative or unique approaches to any aspect of project development; new and creative approaches to urban issues; design quality.)

Reason #1: Reinventing the Amercian schoolyard: We do not think of schoolyards as just another playground, they are the core of urban communities. Ironically the design value of this work has been overlooked. It is not a one-of-a-kind project but rather "a landscape system that alters, in a much more sweeping way, the places we and our families live in every day." We believe that it is this cumulative effect of learning landscapes and its comprehensive approach through design, construction and maintenance that offers a new and much needed paradigm shift for urban design. Reason # 2: National Model for Empowering Neighborhood Schools & their Communities: As mentioned previously when Denver Public School children began attending schools in their own neighborhoods there was a greater awareness of the degradation of the local neighborhood schoolyards. This disenfranchisement is a national phenomena and as court ordered school busing is reversed, many communities will find themselves rethinking the concept of school the neighborhood school. The time is critical for a schoolyard redevelopment model such as Learning Landscapes that is founded on strong design principles, is community based and consistent with national health and educational goals. Reason # 3: Civic Engagement - Graduate Students: Learning Landscape's unique approach to design pairs graduate students with licensed landscape architects whom as a team take the project from design through construction. This academic setting is an advanced design studio challenging students to find creative solutions to real world urban design issues with public funding to get the project built. Learning Landscapes provides an opportunity for community-based committees including elementary students to work with graduate design students and within one year go from quick design sketches to construction of a full schoolyard redevelopment. The community learns about urban design and the development process and the graduate students learn how to engage the community and transform ideas into a reality. The comprehensive nature of the Learning Landscapes system encourages civic cooperation and requires collaboration up and down between public entities as well as private/commercial contractors and vendors for the betterment of children's learning environments. Learning Landscapes has provided innumerous examples of environmental education opportunities while encouraging the use of storm water management best practices as well as the use of recycled materials on sites.

2011
RUDY BRUNER AWARD
PROJECT DESCRIPTION

RUDY BRUNER AWARD
FOR URBAN EXCELLENCE

PROJECT DESCRIPTION

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

1. Describe the underlying values and goals of the project. What, if any, signifcant trade-offs were required to implement the project?

Learning Landscapes is committed to providing civic service to schools and communities to enhance the urban environment through innovative school yard design. Our initiative is committed to providing outdoor learning environments, public art opportunities and community engagement through design. Further, we provide educational opportunities for teaching and learning through Learning Landscapes courses at the University of Colorado Denver and community engagement by encouraging collaboration.

We collaborate with Denver Public Schools, Denver Parks and Recreation, and each individual community by engaging in meaningful partnerships with students, staff, neighborhoods and organizations serving all Learning Landscapes sites. This process and the unique relationships speak to the complexity of a large scale urban project. The relationships are nurtured starting with a master plan for each school, followed by a series of design development documents (conducted by graduate students) and finally the construction documentation and administration conducted by licensed architects and engineers.

We believe in equity by respecting and celebrating the social and cultural character of each Learning Landscapes neighborhood and their specific demographics. We believe in innovation in design. It is our goal to challenge the boundaries of traditional thinking when it comes to urban design, outdoor learning and community development. Research and development have been critical means to test our projects and try to further the importance and value of our work in terms of how our projects affect test scores, decrease behavioral incidence, and contribute to the prevention of childhood obesity.

A significant trade off has been the limit on budgets to provide adequate maintenance to our projects. No single project can take care of itself over the long term. As such we have tried to encourage students, staff, and community members to take on the initiative to take care of the places we build. A further trade off has been the need to value engineer our projects to make sure what gets built is functional and has an integrity that will withstand time.

2. Briefly describe the project's urban context. How has the project impacted the local community? Who does the project serve? How many people are served by the project?

Learning Landscapes function as neighborhood public parks providing much needed green space and social gathering places while fostering neighborhood pride for local communities. With the cessation of mandatory bussing in 2002 meant a renewed interest in neighborhood schools.

As an element to the City of Denver's Master Plan called the "Game Plan", Learning Landscapes is recognized as the fifth element of neighborhood parks. The City has benefited greatly in that they do not have do anything since each Learning Landscape is owned and operated by Denver Public Schools. Yet this added urban element acts to provide community level parks where people can exercise, garden, recreate,etc . Not to mention the numerous number of students that are served daily by the project. The context of each school differs slightly, from urban to suburban, with most schools being located in residential areas. There are as many as 10 projects, however, that are located in retail and commercial districts that have sensitive issues with security and vandalism.

As a unique program, Learning Landscapes has managed to stitch together intergovernmental agencies and private foundations to better serve Metro Denver's elementary school students and staff. Learning landscapes has transformed blighted schoolyards into new parks that serve generations of students and community members. During the school year, 35,000 elementary school students are served by the project. Accordingly Denver's population from 2004 estimates was approximately 557,000 people. It could be argued that the Learning Landscapes initiative has affected the entire population of Denver and beyond. 50% of the students that our project serve come from minority and below poverty line status receiving free lunch programs.

The project has affected the local community by transforming blighted schoolyards into age appropriate play grounds, gardens, and community gathering spaces, as well as opportunities for recreation and exercise. From an economic standpoint Learning Landscapes has garnered $49,000,000 in construction and engineering costs. We cannot easily calculate the number of jobs this has created either administratively or through engineering or construction services.

3. Describe the key elements of the development process, including community participation where appropriate.

Involving the community in all phases of the development process; planning, design, fund-raising, and construction, builds stewardship of the Learning Landscape. Graduate students in the Learning Landscapes program follow a civic engagement focused academic curriculum where students are paired with both professional landscape architects hired by DPS and an elementary school to develop a master plan and design documents. Elementary school students participate in the design process by creating drawings illustrating their vision for a new playground. Parents, teachers, students and neighbors convene Learning Landscape committees to focus on important issues such as site programming, educational elements and safety concerns. The graduate student/landscape architect team facilitate community meetings, synthesize the committee's ideas into a detailed site plan, and develop a design reflecting the vision, culture and curriculum of the school. Early on, due to funding constraints, community volunteer events were essential completing construction. As Learning Landscapes gained momentum and funding, DPS hired professional contractors to renovate the schoolyards but community events are still a component of the construction process. Learning Landscape staff and the school committees organize volunteer build events as a fun way for students and community members to get their hands dirty, dig in and help to build the Learning Landscape playground. The implementation component of this process is most successful in garnering community involvement. The large number of individuals contributing sends a strong message to the communities and their children: "We believe in you."

4. Describe the financing of the project. Please include all funding sources and square foot costs where applicable.

A combination of public and private funding financed the development of Learning Landscapes with an average construction cost of $450,000 per playground. School principals and parents lobbied District administrators to construct the schoolyards, and local businesses, organizations, and community-members provided funding and in-kind support. Federal Community Development Block Grants supplied through Denver's Department of Housing and Neighborhood Development Services were a key funding component to many of the first Learning Landscape schoolyards located in under-served neighborhoods throughout Denver. Success of the Learning Landscape project has removed much of the fund raising burden from the schools. Denver voters have expressed their satisfaction with the program by passing multi-million dollar bond initiatives to fund the redevelopment of every Denver Public School elementary school into a Learning Landscape. From 1998-2012 $49.6 million was raised to implement Learning Landscapes as a district-wide schoolyard redevelopment plan.

- 1998-2003 $9 million raised through public and private funding
- 2003 - $10.6 million raised through voter approved general obligation bond
- 2008 $29 million raised through voter approved general obligation bond

With funding from the 2008 Denver Public Schools General Obligation Bond the remaining 56 schools will recieve a Learning Landscapes schoolyard transformation. This bond funds architectural and engineering feels as well as

5. Is the project unique and/or does it address significant urban issues? Is the model adaptable to other urban settings?

We have established a network of relationships in our larger community through a civic engagement curriculum that promotes innovative urban design for schoolyard redevelopment. Our unique project has provided over 10 years worth of design assistance and project coordination that addresses depleted public space while providing educational and recreational opportunities.

The Learning Landscapes team recruits students, parents and surrounding community members to help build, maintain and improve the Learning Landscape. Outdoor art projects provide the school an opportunity to express the creativity, character, and culture of the school on the playground. Banner and tile projects are a great way for each student to participate in the construction of the Learning Landscape, display the student artwork, and give the students a sense of pride and ownership in their playground. Building partnerships with organizations, documenting outdoor curriculum opportunities, and offering technical assistance for maintenance promotes Learning Landscape sustainability. To preserve the quality and character of the Learning Landscapes, the schoolyards must be respectfully used by the students and surrounding community. School and community vegetable gardens are examples of site-specific programming on Learning Landscapes that promote sustainability through community capacity building, healthy eating, and curriculum enhancement.

2011
RUDY BRUNER AWARD
AWARD USE

AWARD USE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided.

Please separate this page from the rest of the application. Award Use should be submitted in a sealed envelope along with the application materials. It will not be used in judging entries or be seen by members of the Selection Committee.

Please describe how *Award* monies will be used to benefit the project. (The *Award* check will be made out to the Applicant unless otherwise specified.)

We would like to use the monies to help document our project. Essentially we would use the monies to organize, write, and publish a book of case studies of some sort. When surveying the academic literature on the topic of play and school yard projects - what's available is very sparse. Conversely, we are finding through our research, the importance of play as a component in cognitive development, positive behavioral incidence, childhood obesity, and general health in minors is of continued greater concern. Further, within the design profession we would like to prove the importance that school yards have as critical urban spaces that serve multiple users and age groups.

We feel like our project is a model that can be replicated and modified to fit other urban metropolitan areas. The fact the elementary school yard projects are in such a depleted state across the country is a fact that is confounding and worrisome. It remains a fact that 50% of the population that is served by our project are minorities - some 17% of which receive free lunch status due to their economic income status. (www. piton.org)

We hope that with further recognition from entities such as the Rudy Bruner Foundation that we can continue to refine our business model and document the model to show how it can be replicated at multiple scales.

** This statement should be signed by the applicant. Photocopies or facsimile copies of the statement with original signature is acceptable. Award Use statement should be submitted in a sealed envelope along with the application materials.

Name and Title

Date

Rudy Bruner Award List of 'Perspective' response contact information for Learning Landscapes						
First Name	Last Name	Title	Department/Program	Company	Phone	Email
Scott	Ascherman	Vice President, CFO, Co-Owner	Commercial Division	Designscapes, Colorado	303-721-9003	sascherman@designscapes.org
Jennifer	Barton	Principal	Denver Public Schools	Teller Elementary School	720-424-3560	Jennifer_Barton@dpsk12.org
Michael	Buchenau	Executive Director		Denver Urban Gardens	303-292-9900	Michael@dug.org
Christine	Clarke	Former Student	UC Denver		720-272-7970	cokayakgirl@gmail.com
Darin	Delay	Project Manager	Construction Services	Denver Public Schools	720-424-5492	darin_delay@dpsk12.org
Jill	Gaschler			Gpd Land Design	303-788-9604	jgaschler@gpdlanddesign.com
Leslie	Henson				303-882-5544	lahenson03@comcast.net
Gigia	Kolouch	Program Director	Seed to Table	Slow Food Denver	303-321-3322	thenaturalpantry@estreet.com
Robby	Layton, RLA, ASLA, CPRP	Principal		Design Concepts	303-664-5301	rob@dcla.net
Peggy	Lehmann	Council President Pro Tem	District 4	City of Denver	303-504-5781	peggy.lehmann@denvergov.org
Paul	Mills, RLA	Partner		Russell + Mills Studios	970-484-8855	pmills@russellmillsstudios.com
Claudio	Nigg, PhD	Associate Professor, Social & Behavioral Health Sciences	Office of Public Health Studies	University of Hawai'i	808-956-2862	cnigg@hawaii.edu
Ray	Palma				720-580-2991	
Robert	Pietruszewski	Artist			303-477-4455	bobp@visualidea.com
Frank	Roti	Principal		Beach Court Elementary School	720-424-9470	Frank_Roti@dpsk12.org
Jerry	Wartgow	Chancellor CU Denver		University of Colorado Denver	303-315-2500	Chancellor@ucdenver.edu
Troy	Garner	Public Relations Manager DPS		Denver Public Schools	720-423-4181 (office	tgarner@dpsk12.org

2011 RUDY BRUNER AWARD COMMUNITY REPRESENTATIVE **PERSPECTIVE**

RUDY BRUNER AWARD

FOR URBAN EXCELLENCE

COMMUNITY REPRESENTATIVE PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

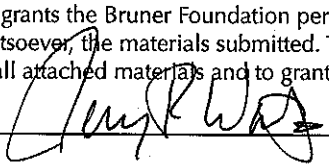
This sheet is to be filled out by someone who was involved, or who represents an organization that was involved, in helping the project respond to neighborhood issues.

Name Jerry Wartgow, PhD | Title Chancellor

Organization University of Colorado Denver | Telephone (303) 315-7682

Address 1380 Lawrence Street, Suite 1400, CB 168 | City/State/ZIP Denver, CO 80204

Fax (303) 315-2877 | E-mail Jerry.Wartgow@ucdenver.edu

Signature  Date 12/08/10

1. How did you, or the organization you represent, become involved in this project? What role did you play?

I was the Superintendent of Denver Public Schools at the time that this project was beginning to get some momentum. When it was first initiated we were looking for ways to do more than just improve our playgrounds. This partnership turned out to be very popular and very positive, so we were working on taking it to a larger scale within the district. After the initial three-year public private partnership it was included in the 2003 General Obligation Bond for the school district.

Now I am the Chancellor of the University of Colorado Denver and recognize the value of Learning Landscapes from another perspective, the importance and significance of this project to the University and our role in civic engagement as well as linking traditional research and design. The Learning Landscape program is well respected within the University.

2. From the community's point of view, what were the major issues concerning this project?

There really weren't any issues or obstacles except the time and energy needed to establish intergovernmental agreements between the school district and the city. Learning Landscapes broke new ground with how the city and the school district worked together on the funding and maintenance of schoolyards. Other than that everyone else was very supportive at every level. I think one big selling point was my executive director of facility management. He really was the hero for this project working closely with the Gates Family Foundation during the pre-bond phase of funding.

COMMUNITY REPRESENTATIVE PERSPECTIVE (CONT'D)

3. Has this project made the community a better place to live or work? If so, how?

I have always thought that this program is a great urban model for other urban school districts. Once busing was gone this program helped reconnect schools to their neighborhoods. From the University perspective this program is a great example of how a University can give back to its community and at the same time support integrated research that validates the importance of such an urban project.

4. Would you change anything about this project or the development process you went through?

Not really. We accelerated construction as fast as we could as there was so much desire. No one really had an issue. The only thing I can think of is with the 2003 General Obligation Bond. The original intent with this bond was to include enough funding to complete all the elementary school learning landscapes. However, given the ever increasing size of the bond and the tax implication the budget for the bond was cut in half. Leaving the remaining schools to have to wait until the next bond which was in 2008.

COMMUNITY REPRESENTATIVE PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by someone who was involved, or who represents an organization that was involved, in helping the project respond to neighborhood issues.

Name Leslie Henson | Title Teller Elementary Parent

Organization PTA | Telephone (303) 882-5544

Address 1103 Cook Street | City/State/ZIP Denver, CO 80206

Fax ( ) | E-mail lahenson03@comcast.net

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Leslie Henson Digitally signed by Leslie Henson DN: cn=Leslie Henson, o, ou, email=lahenson03@comcast.net, c=US Date: 2010.11.02 12:35:15 -06'00' | Date November 2, 2010

1. How did you, or the organization you represent, become involved in this project? What role did you play?

I became involved as a PTA co-chair to help pass the 3A Bond Initiative that would fund improvements for Teller Elementary, including a new Learning Landscape. Once Teller was approved for its Learning Landscape I was on the committee to oversee the process.

2. From the community's point of view, what were the major issues concerning this project?

Teller had a small area available for a multiple use LL. We had a relatively small budget for a major overhaul. We wanted a LL landscape that the children, parents, faculty and community would use and love.

3. Has this project made the community a better place to live or work? If so, how?

It's an amazing transformation. I live nearby and whenever I pass the school there are people out using the LL. It has creating a new sense of community in the neighborhood. The kids love it!

4. Would you change anything about this project or the development process you went through?

I thought we had a very collaborate process and was pleased with the professionalism. We have a wonderful new Learning Landscape.

COMMUNITY REPRESENTATIVE PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by someone who was involved, or who represents an organization that was involved, in helping the project respond to neighborhood issues.

Name Gigia Kolouch | Title Seed to Table Director

Organization Slow Food Denver | Telephone (720) 235-6230

Address 1250 Emerson St. | City/State/ZIP Denver

Fax ( ) | E-mail thenaturalpantry@estreet.com

Signature Gigia Kolouch Digitally signed by Gigia Kolouch DN: cn=Gigia Kolouch, o=Slow Food Denver, ou, email=thenaturalpantry@estreet.com, c=US Date: 2010.11.08 06:13:20 -06'00' | Date 11/4/2010

1. How did you, or the organization you represent, become involved in this project? What role did you play?

Slow Food Denver has been partners with Learning Landscapes for the past ten years. During that time, Learning Landscapes has provided us with the infrastructure and outdoor educational gardens that provide the background for our multidisciplinary food, nutrition, science and culture programming. When we first began our project to transform students' relationship to food, we were a small group of 6 people with a passion for gardens but very little money. We wanted to offer public school students the experience of planting, growing and harvesting their own food that they would cook and share with their communities. While we had volunteer who wanted to teach these classes, we had no resources to build or maintain the gardens.

At this point, Learning Landscapes offered to support us in our efforts. Our first garden at Bromwell Elementary was also the first Learning Landscapes site. That program still exists today. Two parents from the school lead the children in garden classes, a youth farmers' market, seed starting and a spring plant sale as well as cooking classes. This year, the garden's popularity allowed them to expand the size of the garden, doubling it.

As parents, staff and community members came to us asking for garden programs, we have been able to use Learning Landscapes as a source for designing, building and providing the necessary infrastructure for their school gardens as well. LL is committed to providing school gardens to all Denver Public Schools.

At the beginning, we had many administrators and DPS officials who were skeptical of the garden effort and were concerned about maintenance issues. LL's relationships with DPS administrators allowed us to persuade them and

2. From the community's point of view, what were the major issues concerning this project?

The major issues involved in these projects are: 1) Scarcity of funding, 2) Complicated or unclear regulations and 3) Program sustainability.

1. Over the years, we have increased our funding efforts and now have more money available to schools for supplies and basic costs. In addition, LL has been able to add garden building costs into all new designs. However, schools that are not in the DPS system or older schools who already have updated playgrounds are not eligible for this funding. LL has often helped us in these efforts by trying to secure funding. Sometimes the school itself finds money to pay for the necessary irrigation and fencing.
2. School gardens have not been in Denver schools for many years and are not covered by current regulations. LL, Slow Food Denver and Denver Urban Gardens have worked together to form the Denver School Garden Coalition. Our coalition has developed policies and procedures to manage school gardens so that maintenance responsibilities, safety issues and procedures for starting gardens are clear to the community.
3. Many gardens are run by parent volunteers and/or teachers. The Slow Food Denver School Garden Alliance offers some stability so that when current garden leaders retire, others can be trained and take their place. However, the ideal solution would be for gardens to have paid garden educators, in order to more seamlessly integrate garden activities daily academic studies.

3. Has this project made the community a better place to live or work? If so, how?

This project has improved the participating school communities academically, physically and emotionally in the following ways:

1) Academically: School gardens offer one of the few avenues to experiential learning. In our programs, students get to see life cycles happen before their eyes, touch and play with insects and bugs, and learn the purpose of seeds. In addition, cooking classes teach them about countries from all over the world, how they eat, their geography and how they grow food. Often children who are uninterested in traditional studies love coming into the garden.

2) The combination of growing fresh fruits and vegetables and then cooking them leads to an astonishing increase in fruit and vegetable consumption. Throughout the year, our students often enjoy eating zucchini flowers, eggplant, tomatoes, peppers, arugula, carrots and beets in the form of stir fries, soups, stews and pastas. Their parents are usually delighted and surprised with their children's new found love of vegetables.

3) Garden programs offer a community space in a school that can be shared by all ages. Children bring their parents to the garden to show them their work. Many programs have a community celebration or feast in the fall where parents can come to share in their students success. The school garden is a valued tool in building a sense of school community.

4. Would you change anything about this project or the development process you went through?

The project up to this point is a result of the constraints we have faced due to lack of staff and lack of resources. However, the benefit to these constraints is that we have had to rely more on community support in all forms including local businesses, parents, administrators, other organizations such as LL. Without these constraints, we would not have the diverse and pervasive support for the gardens that exist today.

In the future, we plan to expand our programming capacity by developing funding for staff members to provide continuity and programming support to our gardens. With the help of LL, we also plan to incorporate school gardens into Denver Public Schools administrative structure, in order to ensure their long term success.

COMMUNITY REPRESENTATIVE PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by someone who was involved, or who represents an organization that was involved, in helping the project respond to neighborhood issues.

Name Ray Palma Title Parent

Organization Beach Court Telephone (720) 580-2991

Address 1830 W 52nd Ave City/State/ZIP Denver CO 80221

Fax (X) E-mail X

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Date 11-10-10

1. How did you, or the organization you represent, become involved in this project? What role did you play?

I helped in the planning and design of the landscape for our kids. I spoke with parents to get ideas about what would help with kids on the playground. It was hard work and a lot of fun!

2. From the community's point of view, what were the major issues concerning this project?

Time to finish the project was a concern. The construction workers finished ahead of time for kids in August.

Good Afternoon!

I am Ray Palma and I now have two kids who are here at Beach Court: Isaiah, Pablo, Albert, and Oscar. When I heard that Beach Court was going to get a new playground, I was extremely excited for our kids and the community. I love that this playground is very colorful, highly interactive, and a place to learn and have fun! On the weekends, it is awesome to see many neighborhood families gather and have fun with their children. This playground has brought many people together in our neighborhood.

I am very grateful to everyone who planned and constructed this beautiful playground. Especially, Mr. Darin Delay, Russell and Mills Corporation, Goodland Construction, UCD, and the Denver Public Schools. Thank you for providing a fun and beautiful playground for everyone to enjoy!!! Everyday, it is fantastic to see our kids loving the playground so much!!!

Thank you!

2011 RUDY BRUNER AWARD PUBLIC AGENCY **PERSPECTIVE**

RUDY BRUNER AWARD

FOR URBAN EXCELLENCE

PUBLIC AGENCY PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a staff representative of a public agency directly involved in the financing, design review, or public approvals that affected this project.

Name Peggy Lehmann Title City Councilwoman

Organization Denver City Council Telephone (303) 504-5781

Address 3540 S. Poplar St. City/State/ZIP Denver, CO 80237

Fax (303) 504-5786 E-mail peggy.lehmann@denvergov.org

Signature Peggy Lehmann Date 10/29/2010

1. What role did your agency play in the development of this project? Describe any requirements made of this project by your agency (e.g., zoning, public participation, public benefits, impact statements).

Denver Public Schools are a seperate entity from the City and County of Denver. Therefore, my role was a support role, not a regulatory role. The schools and the city government have a cooperative relationships. We serve on each other's community meetings, planning groups, etc. to help in the design of these Learning Landscapes.

2. How was this project intended to benefit your city? What trade-offs and compromises were required to implement the project? How did your agency participate in making them?

Many of the public schools are located in close proximity to our public parks. We often cooperate to be sure that neighborhoods have playgrounds for community use or fields that can be used by anyone. We communicate in order to try not to duplicate opportunities but try to enhance opportunities.

3. Describe the project's impact on your city. Please be as specific as possible.

Since schools, like public parks, are located throughout Denver, Learning Landscapes offer additional resources to our communities. They have amphitheaters, 4-square games and additional basketball baskets, additional fields for community use. They make Denver a great place to live and play.

4. Did this project result in new models of public/private partnerships? Are there aspects of this project that would be instructive to agencies like yours in other cities?

In some cases additional public/private partnerships occured. For example, at one school, there were community gardens created. Some of these gardens were used by the students. Some of these gardens were assigned to people in the community who do not have garden space. Denver Urban Gardens coordinate the running of this program.

5. What do you consider to be the most and least successful aspects of this project?

The most succesful aspect of Learning Landscapes is that all of the 43,000+ elementary students have a new, exciting playground to play on and use for unique learning experiences. The challenge is to take this new opportunity and expand it. There are times when Denver Public Schools and the City and County of Denver struggle to work [illegible] to maximize the use of

this terrific asset.

2011 RUDY BRUNER AWARD DEVELOPER **PERSPECTIVE**

RUDY BRUNER AWARD

FOR URBAN EXCELLENCE

DEVELOPER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by the person who took primary responsibility for project financing or is a representative of the group which did.

Name Darin DeLay Title Project Manager

Organization Denver Public School Telephone (720) 641-5104

Address 1350 E 33rd Ave City/State/ZIP 424

Fax (720) 424 - 5466 E-mail darin_delay@dpsk12.org

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature [signature] Date 12/2/10

1. What role did you or your company play in the development of this project? Describe the scope of involvement.

I was hired by the bond team in 2009 to be the project manager for learning landscapes. This work is run through the Denver Public Schools division of construction services. I look at the process of coordinating with the UCD students, the school community and the design consultants. I make sure the students understand what DPS needs in terms of standards and design guidelines "the rules of the Game" as well as the consultant. I have found this to be very challenging as most of the LA firms we have been working with lack an understanding of the design complexity of these projects and more importantly making sure that they include the educational/experiential components. This is where the graduate students really help push the design envelope and making sure we do not loose some of the design nuances. Each designer is required to prepare a educational guide book for the final design for use by school and teachers.

The design process is the students/consultant developing as a team a set of construction drawings - once this is established I coordinate with all dps parties - principals and schools - risk management - facilities and grounds - student services - early childhood education - physical education - the school community. Once the design is nearly complete (4 to 5 month process) I oversee the budget analysis and any value engineering that may need to be accomplished without sacrificing the integrity or intent of the design. I manage the bidding and construction process. On average we are building 10 - 12 schoolyards per year. This is a traditional open bid process with prequalified DPS contractors. We also have community volunteer efforts that I oversee and school art projects as well. Construction period is approximately 12 weeks.

2. What trade-offs or compromises were required during the development of the project?

Many of these school sites have huge infrastructure issues i.e. sites draining into buildings, failing existing roof drains, failing asphalt, failing retaining walls, old irrigation, ada accessibility. Therefore we have to balance solving these issues on a site by site basis without compromising the uniqueness of each learning landscape. An example would be that most of the shade structures are one of a kind - sometimes we have to use off the shelf prefabricated structures when the budget must be used to address infrastructure issues. It is alot of program in very tight spaces.

3. How was the project financed? What, if any, innovative means of financing were used?

These current projects are funded through a voter approved general obligation bond that was approved by 2/3 margin in 2008. It is the second bond with the first being in 2003. At the end of this bond all elementary schools will have learning landscapes. We have also had schools providing additional dollars to augment the bond money. This has ranged from 10K to 70K. We also get discounted trees from nurseries and help from parks and recreation. The first phase had more creative financing but I was not here then.

4. What do you consider to be the most and least successful aspects of the project?

The most successful aspect is that the school children get a healthier and safer playground and the community get a park. Economically these can sustain themselves through the community use. Everyone is proud of it. It changes the way children play in an unstructured fashion.

Maintenance - getting the district to step up to the plate and ensure proper dollars are spent taking care of these places.

DEVELOPER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet ~~is~~ to be filled out by the person who took primary responsibility for project financing or is a representative of the group which did.

Name Frank V. Roti Title Beach Court Principal

Organization Beach Court Elementary School Telephone (720) 424-9470

Address 4950 Beach Court City/State/ZIP Denver, CO 80221

Fax (720) 424-9495 E-mail frank_roti@dpsk12.org

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Mr. Frank V. Roti Date 11/10

1. What role did you or your company play in the development of this project? Describe the scope of involvement.

The role I played with the development of this project was to facilitate conversations with the various stakeholders here at Beach Court: students, teachers, staff, and the community. The conversations consisted of the various interests and needs of our new learning landscape with regards to planning and the physical, emotional, and educational needs of our students. I then provided the feedback to the project manager for Denver Public Schools. This went on throughout the 2009-2010 school year. We also put together a timeline for painting the tiles, beginning date for construction, and summer planting. The role I and our school played was multifaceted and lasted the duration of the school year.

2. What trade-offs or compromises were required during the development of the project?

The only compromise our school had to make was the beginning date for construction which was a beautiful trade was conducting our lunch recess in the front of our school. Construction began the first week of May and ended the beginning of August. As a result of the May construction, we were then able to have our playground ready for students the first day of school.

DEVELOPER PERSPECTIVE (CONT'D)

3. How was the project financed? What, if any, innovative means of financing were used?

The project was funded through the Denver Bond (voters).

4. What do you consider to be the most and least successful aspects of the project?

The most successful aspects of this project is that the children now have the best interactive playground to play on daily. Students are highly engaged and are motivated to play on our new learning learning landscape. Parents now bring their little ones to play on the learning landscape daily. Students utilize their social and emotional skills during their meaningful play time. The amount of families coming to play on weekends has increased significantly. It was truly a collaborative effort for putting our new learning landscape together. It has brought our community together!!

Speech

Hi my name is Marisol Marquez I am ten years old. I have been in beach court since Ece. Our playground back then was really old we dint hade that many things to do. Now that we have this awsome beautiful playground everybody loves it. Also every one of you kids wants to play in it. The moment I saw the new playground I was shocked I felt like I wanted to play in it every time also other kids. It was the perfect playground for us in beach court. Thank you so much people who build this awsome new playground for us.

DEVELOPER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by the person who took primary responsibility for project financing or is a representative of the group which did.

Name Troy Garner | Title Community Relations Manager

Organization Denver Public Schools | Telephone (720) 423-4181

Address 2800 W. 7th Avenue | City/State/ZIP Denver, CO 80204

Fax (720) 423-4169 | E-mail Troy_Garner@dpsk12.org

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Date 12/09/10

1. What role did you or your company play in the development of this project? Describe the scope of involvement.

In 1998, DPS and UCD began reviewing the current state of play at our elementary playgrounds and we both walked away from that review, saying our kids deserve new and exciting opportunities for play. The first Learning Landscape was constructed at Bromwell Elementary and since then, the Learning Landscape model has turned into an urban initiative that has renovated elementary schoolyards in every sector of our city. Currently, we are scheduled to complete all Learning Landscape construction in the summer of 2012.

2. What trade-offs or compromises were required during the development of the project?

In 2008, Denver voters overwhelmingly showed their support to DPS by voting positively for the school bond. And thanks to their generous support, we are now able to complete Learning Landscape construction at the balance of schools not designated as such. Prior to construction, the following steps take place:

1. DPS hires landscape architects to work side-by-side with UCD students and each school's "playground" committee (made up of staff, parents and community members) to finalize the site plan and the educational theme of the playground.
2. From there, the landscape architects work with the DPS Project Manager and internal departments to design a play space that accommodates the Learning Landscape program elements and the needs of our internal departments and, most importantly, they work to design a kid friendly and fun environment.
3. Once all stakeholders have approved the design, the landscape architect then submits a series of drawings (schematic, design development, 50% construction documents and then the bid set) to DPS Operations for quality review.
4. While construction documents are being completed, The "Playground"committee is offered an opportunity to choose between traditional or modern playground equipment from a list of pre-approved play equipment vendors.
5. When the construction documents are approved, DPS then solicits bids from pre-approved contractors to perform the work.
6. Toward the conclusion of most Learning Landscape projects, DPS, UCD and the participating schools schedule a Community Day whereby the community can plant shrubs, trees, spread mulch, etc. The Community Day goal is to increase community stewardship of each Learning Landscape site and to unite school with their community. We are hopeful that these Learning Landscapes will continue to give back to our community and to our youth for decades.

3. How was the project financed? What, if any, innovative means of financing were used?

In 2000, The University of Colorado at Denver Program partnered with Denver Public Schools and private foundations to raise the initial funds to construct 22 inner-city schools. In 2003, the Denver Public Schools General Obligation Bond was passed, securing an additional 10 million dollars in funding for 25 more schools. In 2008, Denver voters passed a General Obligation Bond with funding to construct 37 new Learning Landscapes from 2009 - 2012.

4. What do you consider to be the most and least successful aspects of the project?

The most successful aspect of the Learning Landscapes program can be found in the increased level of positive playground use during school hours and after school hours. The foot traffic to our schools has been increased by the overwhelmingly positive support by the community to utilize these spaces for activities that were not possible, prior to Learning Landscapes construction replacing the arid, pea gravel ball fields.

Sadly, due to the tight construction windows we operate under in the summer months ,our volunteer opportunities have been limited to smaller-scaled activities to ensure no conflict with the general contractor's schedule. On average, our goal is to transform these landscapes in 12 weeks so that when kids return from summer break, they return to a 21st Century playground that both they and their parents love.

2011 RUDY BRUNER AWARD ARCHITECT OR DESIGNER **PERSPECTIVE**

RUDY BRUNER AWARD

FOR URBAN EXCELLENCE

ARCHITECT OR DESIGNER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a design professional who worked as a consultant on the project, providing design, planning, or other services.

Name Robert Pietruszewski Title Artist

Organization Visual Idea Design Telephone (303) 477-4455

Address 3126 Stuart Street City/State/ZIP Denver/CO/80212

Fax ( ) E-mail bobp@visualidea.com

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever. the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application ıt these rights and permissions.

Signature Date 2010

1. Describe the design concept of this project, including urban design considerations, choice of materials, scale, etc.

My contribution to this project involved the development, design and installation of wind-driven kinetic sculptures, integrated into the landscape and reflecting a facet or emphases of the overall plan. Following the thematic landscape design as a guide, I gathered input on initial concept development from, among others, staff and students of the school, members of the community, and the landscape designers.

In one instance the desire was to provide a welcoming entrance to the community, this was achieved by a kinetic gateway. In another, an urban garden of indigenous plants was grown and the kinetic sculpture moves gracefully above the garden amplifying the effect of the elements on the tall grasses. Yet another school found a focus in science and the sculpture was realized as an abstraction of an active neuron cell.

The materials I use in my work are predominantly weather resistant and low maintenance stainless steel, anodized aluminum and titanium, in keeping with the durability of other playground equipment. The scale of the works requires consideration of the overall design intent and the viewers; in this case with a special emphases on the children who will "live" with installations. An elementary school site is a good candidate for "approachable" works. This does not exclude large works of art, but demands a viable connection between the viewer and the work. My particular works for Learning Landscapes range in size from a few feet in diameter to over 25 feet in height and 18 feet in diameter.

2. Describe the most important social and programmatic functions of the design.

As these works are located on school grounds, and are visible from the neighboring community. They provide a visual reference that enhances integration of the school site with the community. In turn, I have found that neighbors adjacent to the schools often take an "ownership" interest in the newly renovated sites, and by extension, the school community.

The nature of kinetic sculpture allows it to provide an "activated" visual element to the landscape. When properly integrated, this motion of art draws additional attention to the work and it's immediate environment. This aspect of the work enhances the effectiveness of involving the students into the setting, and "pulling" the community closer.

3. Describe the major challenges of designing this project and any design trade-offs or compromises required to complete the project.

A great deal of careful design is built into the Learning Landscapes, they have a purpose and a stimulating effect on students. These principals had to be amplified by the sculptures I provided. Unlike a stand-alone sculpture that may be placed in a variety of settings, very specific constraints were considered. Safety is of the utmost concern; surfaces must be safe to the touch, openings must not trap fingers, moving elements must have minimum overhead clearances, etc.

From my experience however, these restrictions do not tend to interfere with the overall design of the work, but are merely analogous to the edges of the canvas a painter may respect.

4. Describe the ways in which the design relates to its urban context.

Sculpture, in it's many forms, provides an opportunity for thought. All art is an abstraction in one way or another and thus tends to challenge viewers. The Learning Landscapes share these qualities, and further, invite students to participate. The sculptures provide a verticality to the thematic elements of the landscape; creating greater dimensional context and broadcasting the landscape's intent beyond it's boundaries.

These kinetic sculptures operate on many levels for both the school community and the neighborhood community. In a simple sense they represent achievement, they demonstrate activity, they punctuate a sense of place and belonging. They are unique landmarks that are shared by both those in the Learning Landscape and around it.

ARCHITECT OR DESIGNER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a design professional who worked as a consultant on the project, providing design, planning, or other services.

Name Jill Gaschler | Title Landscape Architect

Organization GPD Land Design | Telephone (303) 788.9604

Address 4668 S. Xavier Street | City/State/ZIP Denver, CO 80236

Fax (n/a) | E-mail jgaschler@gpdlanddesign.com

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Jill Gaschler Digitally signed by Jill Gaschler DN: cn=Jill Gaschler, o=GPD Land Design, ou, email=jgaschler@gpdlanddesign.com, c=US Date: 2010.11.15 10:07:42 -07'00' | Date 11/15/2010

1. Describe the design concept of this project, including urban design considerations, choice of materials, scale, etc.

The Learning Landscapes playground is designed with a learning "substratum" upon which both standard playground components and non-traditional, specialty elements are built. While designed to work on both of these levels, each site is also designed to be unique, evolving through the neighborhood and school history as well as the chosen educational emphasis.

The sites are designed for long term use in an urban area. The playgrounds are designed to retain good visibility, to buffer the school from existing noise and/or unfavorable view corridors, to connect to surrounding uses, and to be durable. Each design includes ease of maintenance, management of garbage, ease of graffiti removal, and targeted routes for maintenance vehicles. Typical materials are heavy duty steel and concrete; higher-maintenance treatments like wood and loose brick are avoided. Rugged materials are inherent in the infrastructure; however they do not define the "place." The designs are rife with play, plants, art, color, and life.

2. Describe the most important social and programmatic functions of the design.

The Learning Landscapes schoolyard identifies the school as a neighborhood landmark. The sophisticated site development demonstrates that the school is an important place that is cared for. For the students, the site signals that this important place is for them, centering on children, learning, and fun. For the families, the site is a sheltering, visible, and welcoming space for them and their children. For the community, the site is open and functional as a playground and park.

The overarching concept is that the playground work creatively on multiple levels: as campus, as park, and as learning environment. Typical program elements include gathering spaces, art work, seating, shade structures, school gateways, "wild" areas, planting beds, gardens, and learning tools. Interwoven among these are the traditional play elements like fields, hardcourt games, and play equipment. The unique element of the Learning Landscapes program is that the landscape functions not only for traditional play but also as another piece of the available learning environment - offering both outdoor classroom space and built-in educational tools that support the curriculum.

3. Describe the major challenges of designing this project and any design trade-offs or compromises required to complete the project.

Challenges are plentiful: meeting budget, including fun but safe play elements, meeting the needs of all constituents from small children to maintenance staff (who plow the site during blinding snowstorms), working with the university's schedule, translating student concepts to buildable work, and working with school calendar's time constraints.

The most significant trade-off is the practical versus the fun. For an urban school district, elements like "loose parts" and water features are impractical. The challenge is to design in the vibe or experience of such features when the elements themselves are not possible.

4. Describe the ways in which the design relates to its urban context.

The school site is usually tucked in a residential area. Contextually, the design considers site history, surrounding and historical community, the neighborhood, the city, the state, and the region. Areas of emphasis vary from site to site. Programmatically, the site is designed to relate to its context. Surrounding uses like adjacent parks or bus stops are considered. Pedestrian, bike, and vehicular patterns of the neighborhood are studied and enhanced or minimized with elements like fence breaks, walks, and gateways. The design might use earth mounds, walls, plant materials, or fencing to emphasize or de-emphasize view or sound corridors.

ARCHITECT OR DESIGNER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a design professional who worked as a consultant on the project, providing design, planning, or other services.

Name Paul Mills | Title Partner

Organization Russell + Mills Studios, Inc | Telephone (970) 484-8855

Address 141 S. College Ave, Suite 104 | City/State/ZIP Fort Collins, CO 80524

Fax ( ) | E-mail pmills@russellmillsstudios.com

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Date 11.19.2010

1. Describe the design concept of this project, including urban design considerations, choice of materials, scale, etc.

The design concepts for learning landscapes are multi-faceted. The design concepts are themed, uniquely responding to the school in some way that is tangible and helps celebrate the inherit independence and pride each school embodies. They balance the critical play elements while infusing educational learning concepts that work either as individual learning and exploration, group learning such as outdoor classes and then also serve as family learning due to the way the spaces are part of the community and act as parks on weekends. The materials include a combination of elements but also enriching elements such as boulders that represent various rock types, while being seats for an small outdoor classroom. The projects explore innovative solutions to stormwater management with bioswales and other infiltration devises that recharge ground water while also increasing water quality. The sites also vary greatly in scale from smaller more urban schools that are situation on smaller sites to larger expansive schools. The comniation of paved surfaces, playpits, and grassed play spaces were always a critical part of creating a balcned play envionment that suported the goals of the learning landscape. Immersive areas such as butterfly gardens or nectar gardens also included narrow trails that wind through the garden. Additionallly consideration was given per school for plants with texture, sounds, and smells so the landscape was a sensory experience. The result was a multi-facteed play and learning enviornment for chiden at the aschool, their parents and also the community that surrrouded the school.

2. Describe the most important social and programmatic functions of the design.

Taking into account the design concepts mentioned above the merit for these projects BOTH socially and programmatically is the way the sites not only add to the school but also the surrounding community. In almost all cases the shortage of parks and open space in close prximitey results in the school ground serving the fundamental programmatic elements that parks provide. Therefore the communtiy uses the leanring landscapes heavily, and the levels of learning that are being provided in these spaces service not just the stuents at the eschool but continue to service all memebers of the community. It is my belief this is a ciritcial element that the schools learning landscapes provide for.

One aspect that should not be overlooked is the relationship between student and professional these projects create. The inception of each site is born in the Master's Program and then married with a professional office. This give consultants an opportunity of working with the students and investing in the profession of design while also the student the opportunity to understand the project from an alternative set of criteria a proifessional office has in working on such a project. It is a unique condition not for everyone but out office found it incredibly rewarding and important for developing the design and the functions of design.

3. Describe the major challenges of designing this project and any design trade-offs or compromises required to complete the project.

One of the challenges for the projects is to balance a full dynamic educational and play program into smaller sites. The challenge is to create spaces that relate and connect while also affording space for broader activities for the school and community. Additionally the sites are old and the typical conflicts are encountered such as lost infrastructure and utilities and creating solutions to problems that were covered up.

We have been fortunate to have designed a number of learning landscapes a number of years since the program started. With so many great examples and many schools already constructed we did not encounter any doubt in what the goals and objectives were but were met with enthusiasm and committees previously created specifically for the project ahead of time.

Time is a major constraint to be able to construct a site over the summer break. It requires constant coordination, quick responses to issues and questions from contractors and a strong teamwork perspective on the site from designer, owner and contractor. School design standards and maintenance standards are a constant elements that often compromises certain design directions and or ideas, and like most projects for any institution a design reality that students and the consultants have to work with and be extra creative to develop design solution that work with such parameters.

4. Describe the ways in which the design relates to its urban context.

Each school is a focal point within the community and each school has a character and focus that permeates from the educational setting into the grounds and community. Each design spends an extended period of design that looks for inspiration and ideas that help celebrate this and create tangible elements that extends from the school into the landscape. It is this extension that helps relate the project into the urban context as a focal point in the community and urban setting. Each site is unique and each design responds specifically to the site conditions and the school.

ARCHITECT OR DESIGNER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a design professional who worked as a consultant on the project, providing design, planning, or other services.

Name Robby Layton Title Principal

Organization Design Concepts Telephone (303) 664-5301

Address 211 North Public Road, Suite 200 City/State/ZIP Lafayette, Co, 80026

Fax (303) 664-5313 E-mail Rob@dcla.net

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Robby Layton Date 12.6.10

1. Describe the design concept of this project, including urban design considerations, choice of materials, scale, etc.

The basic concept for Learning Landscapes is to make schoolyards into highly-functioning places that provide enhanced health and learning opportunities for children. Interwoven with this is the goal of building stronger communities. The schoolyard is the palette for each project, but the urban design considerations extend well beyond the boundaries of the site to engage citizens and re-connect them to their neighborhood, each other, and the place where they live.

2. Describe the most important social and programmatic functions of the design.

I believe that Learning Landscapes is one of the most significant movements to come out of the landscape architecture field in the recent past. The benefits extend far beyond the schoolyard. While the impacts on the quality of education and children's health alone are adequate justification for the program, the ramifications for the greater community are potentially even more important. The fact is, schoolyards make up a significant portion of the public "green space" to be found in urban environments, and in many neighborhoods in America they are the only green space available. Green spaces play a valuable role in promoting physical health and well-being for people of all ages.

Learning Landscapes take lands that are woefully under-serving the public (to which they belong), and transform them into highly-performing places that become the focus of the neighborhood. The process is as important as the product in some ways, because it engages neighbors in a way that builds a sense of ownership in their public green space as well as a sense of belonging to their community.

The process also benefits the future of my profession because it offers landscape architecture students the chance to work on "real world" projects and gain experience and knowledge that they can apply to other places and projects throughout their career. They gain awareness and sensitivity to the needs of real people that can inform their future work and advance the profession. Practitioners are part of the process, too, taking the concepts developed by citizens and students and making them a reality. The connections made between the academic, private-sector, and public citizen worlds through the Learning Landscape process are synergistic and highly valuable to everyone.

ARCHITECT OR DESIGNER PERSPECTIVE (CONT'D)

3. Describe the major challenges of designing this project and any design trade-offs or compromises required to complete the project.

The challenges are those common to any collaborative effort, and are perhaps multiplied by the highly interactive nature of Learning Landscapes. The fact that public school agencies are by their nature bureaucratic and resistant to non-standard approaches makes the accomplishments of Learning Landscapes even more remarkable. Public schools have very limited funds to work with, and traditionally the application of these funds towards grounds and other things outside the walls of the classroom has had a low priority in the public schools mission. Learning Landscapes has had to prove to administrators that the mission of public education can be well-served by investing in the lands they manage on behalf of the public trust.

4. Describe the ways in which the design relates to its urban context.

Inherent in the Learning Landscapes process is the expression of a neighborhood's history, culture, and composition. Learning Landscapes are very much about connecting schoolyards to the neighborhoods around them. Importantly, this is happening at a time when the trend is to make schools more cloistered places that are cut off from the people that live around them. Yet these same people are the life blood of public schools in the sense that they pay the property taxes that fund schools. Changing demographics suggest that fewer residents around many schools have children of school age and therefore may have less inclination to support taxes that pay for schools at election time, unless they can feel a personal connection and investment in their local school. Learning Landscapes establishes these by making schoolyards a focus of the neighborhood for all residents.

Urban infill, redevelopment, and densification are trends that are placing more stress, demand, and importance on urban green space. Learning Landscapes have demonstrated one of the most promising ways to address this need.

ARCHITECT OR DESIGNER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a design professional who worked as a consultant on the project, providing design, planning, or other services.

Name Christine Clark MLA, MUP

Title Graduate Student - UCDenver MLA

Organization UCDenver School of Architecture and Planning

Telephone (720) 272-7970

Address 8850 S Blue Creek Rd, Evergreen, CO 80439

City/State/ZIP CO

Fax ( )

E-mail cokayakgirl@gmail.com

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Christine Clark Digitally signed by Christine Clark DN: cn=Christine Clark, o, ou, email=cokayakgirl@gmail.com, c=US Date: 2010.11.09 19:46:33 -07'00'

Date 11-09-2010

1. Describe the design concept of this project, including urban design considerations, choice of materials, scale, etc.

Learning landscapes provided me with a rare educational opportunity to dive hands on into the design process while still earning my graduate degree. The design process, stressed both the practical code side of design as well as the more creative, innovative side of designing unique urban spaces. Barnum Elementary provided the community with a unique final product that complemented their culture and schools educational goals. The design of the project was inspired by PT Barnum's circus as Mr. Barnum was a major financial contributor for the school to get built in 1934. As such, I took ideas from the circus such as the idea of creating areas for performance acts (recreational equipment and activities throughout the site), animal acts (animal patterns and footprints) and a center stage (an raised central gathering area for performing). The main shade structure, center stage, was painted bright fire engine red and really added life to the playground. At the gateway entry there is a large zebra pattern sandblasted into the concrete marking the entrance into the vibrant playground. Additionally there was a lot of seating in the form of concrete walls - that have tile mosaics all of which were decorated by either the schools art classes or after school community groups. Also because the neighborhood is so dense - the site is greatly used as a park when the school is not in session. Any given weekend - you can find people there using the play equipment; playing soccer, basket ball and enjoying the new play equipment and shade structure.

2. Describe the most important social and programmatic functions of the design.

The most important aspect of the design was converting the 3+ acres of pea gravel into sod playing fields, new age specific play equipment, a shade structure, a bio-swale and many unique educational components. We designed a new drop off area for the parents and as a result we moved traffic to a less busy street. And now the parents have a place to wait for the kids when school lets out. Socially the school is mixed between Latin American and the other ethnicities, however the play ground brings everyone together. The project built a greater sense of community by joining the community and school together through projects such as the tile project and banner pole project which, included art tiles and banners designed by the school and greater community into the project . The educational components include words and poems inscribed on the pavement and on the games of hopscotch,four square, etc..

3. Describe the major challenges of designing this project and any design trade-offs or compromises required to complete the project.

The biggest challenge was including both what the school and the community wanted into the design - we had a limited amount of funds so all the items on the shopping list had to be prioritized. Further, because the community is primarily Latino - we had to address the Spanish speaking parents and get their input as well. This required a lot of back and forth between the principals, teachers, the design team, and the parents/community members in order to include the ideas and design goals of every stakeholder into the final design. In the end, I fully enjoyed working with my school's, Barnum Elementary, community of students, teachers and parents. Throughout the design process it was evident how important the Learning Landscape program was to the community; the excitement of the parents, who were overwhelmed with appreciation that their children would finally be playing on safe, new equipment. The relief of the teachers that they could finally take their students outdoors during the school day to physically learn and interact with the landscape and the excitement of the children when they heard there would be playing on grass fields and new play equipment.

Seeing the positive impact that learning landscapes has had on the school I worked as a student, will continue to positively influence my career as a Landscape Architect.

4. Describe the ways in which the design relates to its urban context.

Contextually Barnum Elementary is both a school and a neighborhood park and has become a center of focus for the neighborhood; it is used in off hours and on the weekends by the community. The design relates to its urban context by allowing for more types of play as well as providing educational elements in the design. The culture of the community and its history was displayed and appreciated in every design decision made. The result is a transformation from a under-used school playground into a community gathering area that is used, protected and embraced as a place of pride for the entire community.
Further the bio-swale proactively uses rain run-off to water a butterfly garden and all of the other plants, shrubs, and trees. The bio-swale acts as an educational element as well as provides natural, low-maintenance plant life into the center of the site.

2011 RUDY BRUNER AWARD PROFESSIONAL CONSULTANT **PERSPECTIVE**

RUDY BRUNER AWARD

FOR URBAN EXCELLENCE

PROFESSIONAL CONSULTANT PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a professional who worked as a consultant on the project providing services other than physical design or planning (e.g., legal services).

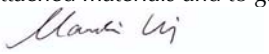
Name Claudio R. Nigg, PhD | Title Associate Professor

Organization Dept. of Public Health Sciences, University of Hawaii | Telephone (808) 956-2862

Address 1960 East-West Rd. | City/State/ZIP Honolulu, HI 96822

Fax (808) 956-5818 | E-mail cnigg@hawaii.edu

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature  Date 11/02/10

1. What role did you or your organization play in the development of this project?

The Learning Landscape (LL) team approached me in 2004 to be the consultant on their Robert Wood Johnson Foundation (RWJF) grant where I guided their efforts in objectively evaluating the impact LL playgrounds had on children's physical activity levels. Upon successful completion of this project we took the next step and collaboratively developed and received an National Institute of Health (NIH) RO1 grant to investigate the synergy of LL playgrounds with curriculum intervention on childhood obesity related behaviors over a 5 year span. This is indeed a true collaboration with three Principal Investigators (Lois Brink expertise in architecture and LL; James Hill expertise in childhood obesity; and myself expertise in children's physical activity and data).

2. Describe the project's impact on its community. Please be as specific as possible.

LL playgrounds promote children's physical activity. The best way I can describe this is through the results of our study: The volume of schoolyard use was significantly higher at schools with renovated schoolyards than at control schools, and students were significantly more active at these schools. Because few public elementary schools in the United States provide daily physical education or its equivalent for all students throughout the school year, noncurriculum approaches to increasing children's physical activity are important. Renovated schoolyards increase the number of children who are physically active, as well as their overall activity levels, and reduce sedentary behaviors. (Am J Public Health. 2010;100:1672–1678).

I can also speak to the impact on the Denver Public Schools' involvement and interest in research. Regarding the interest and involvement of the school system in research - this has been a very positive experience with Principals and PE teachers embracing the health aspect and really promoting our project and data collection requirements at their schools. Our liaison with the DPS has been at all of our meetings and communicates with our Project Coordinator on a regular basis and is an invaluable resource on the inner operations of the school system. As key gatekeepers to our population for our project, this kind of support is essential to the success and furthering of the science.

3. How might this project be instructive to others in your profession?

This project has direct impact and will provide important lessons to the research community. As such the paper resulting from the RWJF grant expanded the literature on the influence of the physical environment on children's physical activity to the playground environment and was published in the premier public health journal - The American Journal of Public Health. The current NIH funded RO1 project will provide significant knowledge on the types of activities impacted by LL playgrounds, possible unique effects of LL playground components by gender (which will provide information on promoting physical activity for girls who typically are less active than boys) and by ethnicity, and how to best motivate children to engage in physical activity to prevent obesity and chronic disease later in life.

4. What do you consider to be the most and least successful aspects of this project?

From my point of view the most successful aspect was receiving the City Bond to finance the building of the LL playgrounds. This directly enabled us to put together the large project proposal to NIH. The only aspect (this is a stretch) that I could come up with that is "less successful" is that my team cannot be on-site in Denver to participate and see the growth of this one-of-a-kind project.

PROFESSIONAL CONSULTANT PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

This sheet is to be filled out by a professional who worked as a consultant on the project providing services other than physical design or planning (e.g., legal services).

Name Scott Ascherman | Title VP

Organization Colorado Designscapes Inc. | Telephone (303) 721-9003

Address 15440 E Fremont Drive | City/State/ZIP Centennial, CO 80112

Fax (303) 755-7040 | E-mail sascherman@designscapes.org

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Date 11/3/2010

1. What role did you or your organization play in the development of this project?

Colorado Designscapes specializes in civil construction, especially school and park landscaping work. For the past decade, we have worked as a subcontractor but mostly as a General Contractor - volunteering time and expertise during the collabrative Studio Design Development phase to the contracted construction phase of the Learning Landscapes Program for the Denver Public School District. While our primary role has been as a General Contractor, we have annually participated in a wide variety of activities from design / constructibility review recommendations, to maintenance and sustainability activities, as well as coordination of community volunteer work that includes tree plantings, construction of planting beds, placement of wall murals, as well as the sodding of play fields.

2. Describe the project's impact on its community. Please be as specific as possible.

The Denver Public School District's Learning Landscape projects have had an immediate and lasting impact on our community. These park-like school play grounds provide a wonderful and safe gathering place for students and families alike. Community pride and ownership is created and established through community involvement that begins as early as the design development phase of a Learning Landscape project to the community volunteer activities during the construction phase of these projects. Students, parents and educators alike enjoy the learning elements incorporated into these playgrounds. They are an interactive space for children to grow, learn, play, exercise and socialize.

These new playgrounds provide safe play spaces for children to interact with each other and their environment. In these urban settings these playgrounds provide the needed open space within the community that they would otherwise never experience.

3. How might this project be instructive to others in your profession?

The unique nature of these projects and the learning components are constantly pushing the construction envelope. The incorporation of art that is coupled with form and function provide constant engineering challenges. Most projects incorporate at least 8 plus specialized construction disciplines such as steel, asphalt, concrete, irrigation, synthetic surface, demolition, earthwork and play structures in order to complete these projects in total. One example was the construction of an accurate sun dial at Steel Elementary School. This construction challenge certainly provided a learning experience for the construction team and students alike.

4. What do you consider to be the most and least successful aspects of this project?

The most successful aspect of the Denver Public School District's Learning Landscape Program and individual projects are the completed projects and the long term affect on the community. These community spaces are places that thousands of people will enjoy for many years into the future. Most of the existing playgrounds being replaced are the original playgrounds that were built with the original construction of the schools. That is quite amazing since many of the Denver Public School buildings are listed on the historic registry. Consequently, the importance of a good community school and proper learning environment cannot be overstated.

Unfortunately, the maintenance and sustainability of these projects is a larger challenge for an already over-committed maintenance staff. Since most of these projects are built with public bond money, the ongoing life-cycle maintenance requirements verses secured funding sources remains unbalanced and anemic.

2011 RUDY BRUNER AWARD OTHER PERSPECTIVE

OTHER PERSPECTIVE

Please answer questions in space provided. Answers to all questions should be typed or written directly on the forms. If the forms are not used and answers are typed on a separate page, each answer must be preceded by the question to which it responds, and the length of each answer should be limited to the area provided on the original form.

Name Tom Kaesemeyer | Title Executive Director

Organization Fox Family Foundation | Telephone (303) 829-1642

Address 3033 East 1st Avenue | City/State/ZIP Denver, CO 80206

Fax (303) 649-2138 | E-mail tkaesemeyer@makjenergy.com

The undersigned grants the Bruner Foundation permission to use, reproduce, or make available for reproduction or use by others, for any purpose whatsoever, the materials submitted. The applicant warrants that the applicant has full power and authority to submit the application and all attached materials and to grant these rights and permissions.

Signature Thomas Kaesemeyer | Date December 6, 2010

1. What role did you play in the development of this project?

Until June, 2010, I served as executive director of the Gates Family Foundation. The Foundation was part of the original Learning Landscape Alliance, formed about ten years ago after the first learning landscape at Garden Place Academy was built. Gates made a challenge grant to that project, and then, with UCD College of Architecture and Planning, the City and County of Denver, and D.P.S, formed the Alliance. The objective was to build 22 learning landscapes in Denver's Focus Neighborhoods. My role was to assist coordination and raising funds. Over four years we raised $9 million from the partners, private foundations and private donations.

The key players include Lois Brink, Jerry Garcia (City), Mike Langley (DPS). Several others from DPS joined our regular meetings at the Gates Family Foundation offices. We created stationary, named an Advisory Committee with key leaders from both parties, produced a video and began raising money. Eventually, other schools in the District wanted learning landscapes and it was presented for consideration for bond money. Two bonds (2003, 2008) were eventually passed, providing sufficient funds to complete learning landscapes for all Denver elementary schools.

It was one of the greatest examples of public-private leverage in the Foundation's history.

2. Describe the impact that this project has had on the your community. Please be as specific as possible.

The scope of the project speaks for itself. Not only were the individual schools provided with excellent facilities for their students, the neighborhood gained a local park where families could gather outside of the school day. Especially in urban areas, this project took advantage of open space to meet a community need. In addition, instead of having play yards for school bullying, the District now had extraordinary recreational facilities for all school-age groups. In addition, because the neighborhood and school communities were involved in the design and construction, the maintenance of the facilities was made easier: they were protected by those who used them.

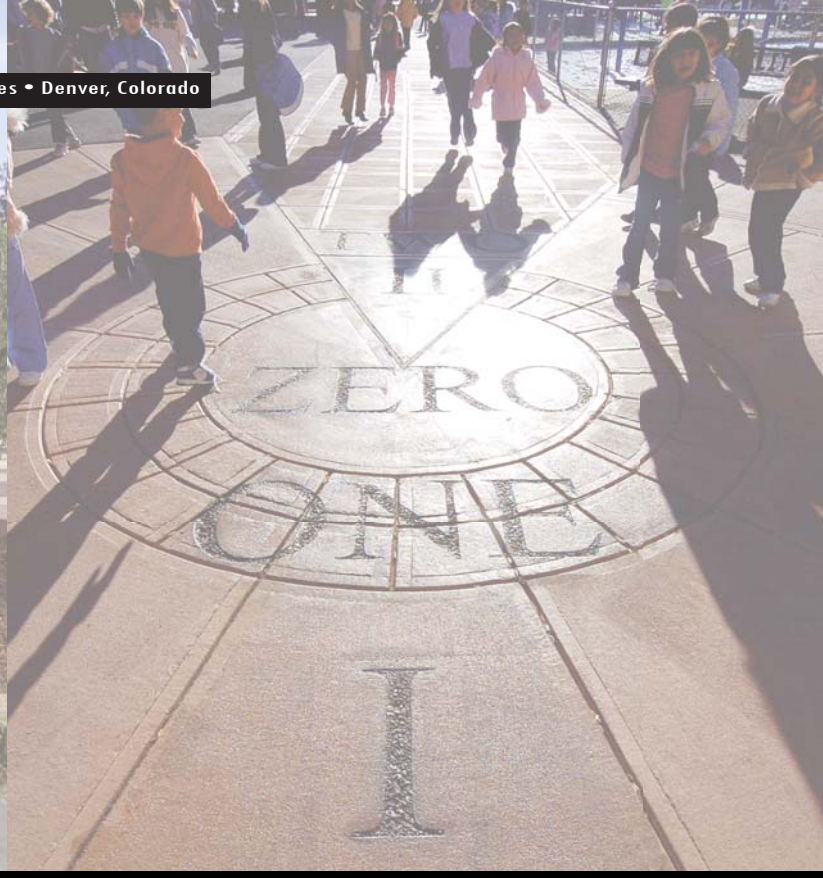
3. What trade-offs and compromises were required during the development of the project? Did you participate in making them?

During the fund-raising phase, we had to delay certain parts of the project until all the funds were raised. Thanks to the leadership of the facility management Department of DPS, few compromises had to be made. It was a project that gain the support of all parties. The only compromise that was made was in the level of funding for maintenance going forward. The lack of funding in the past caused the terrible condition of playgrounds in inner city playgrounds. DPS began to use maintenance funds for salaries in the 2000-2002 downturn. Eventually, we were able to negotiate a reinstatement of maintenance funds. With the 2008 Bond passage, there were sufficient funds to maintain the Learning Landscapes. I was directly involved in the negotiations with the DPS Superintendent.

4. What do you consider to be the the most and least successful aspects of this project?

Seeing all the Learning Landscapes across Denver, with the joint usage of the community and school community is rewarding. I cannot point to what was least successful. Losing temporarily the maintenance funds was the lowest point in the process.

Learning Landscapes • Denver, Colorado



learning landscapes

building community through play

Currently landscape architects reserve their highest reverence for one of a kind built landscapes...but equally compelling, if less imageable, are landscape 'systems' that alter, in a much more sweeping way , the places that we and our families live in everyday. Yet, too often, these large scale intiatives remain unheralded.

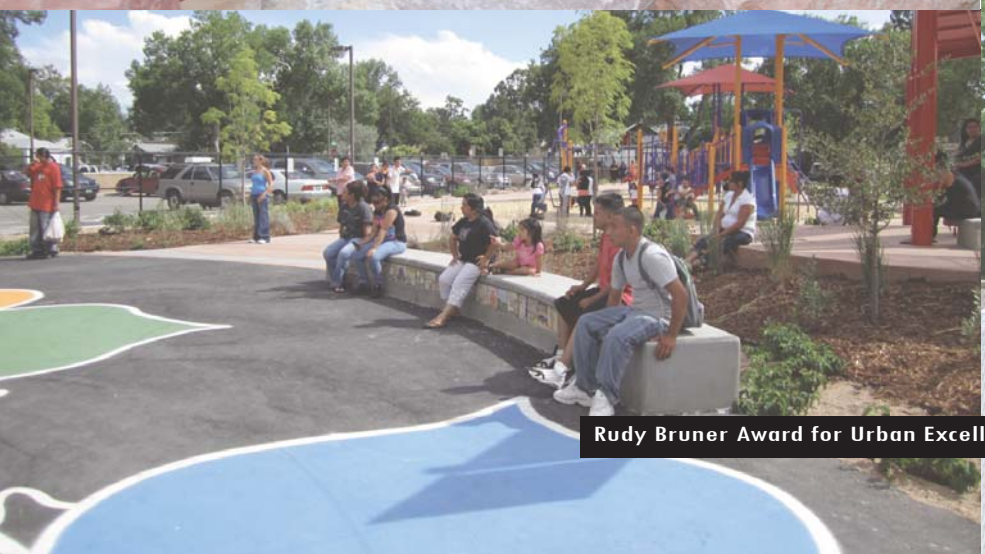
J William "Bill" Thompson
Former Editor *Landscape Architecture*

Rudy Bruner Award for Urban Excellence

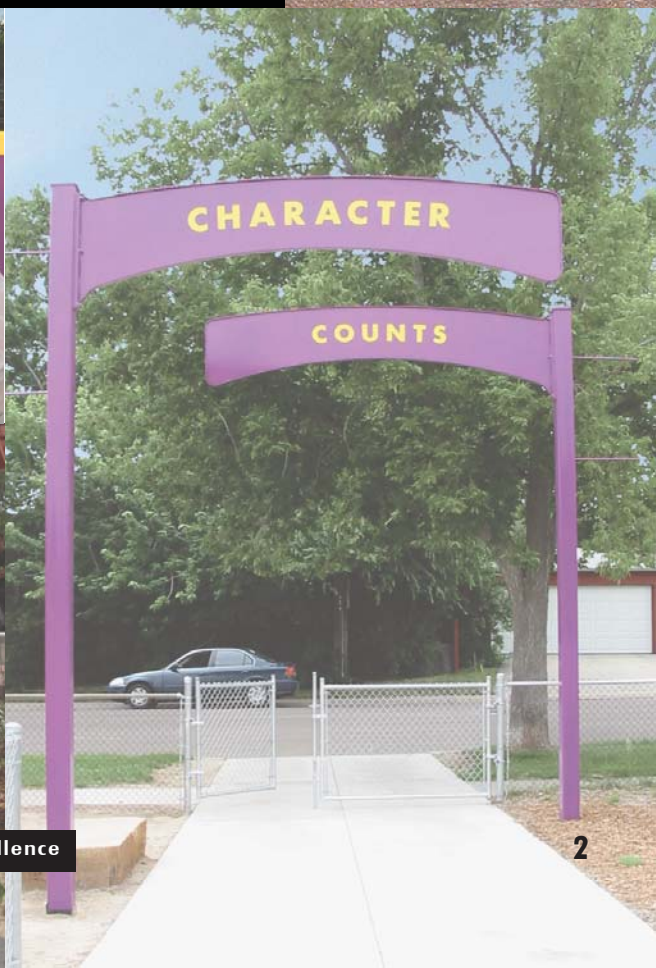
Learning Landscapes • Denver, Colorado

Learning Landscapes

- Project images
- Maps Drawings, Diagrams
- Design Process
- Childrens Drawings
- Before and after images
- Commencments
- Volunteer and Community



Rudy Bruner Award for Urban Excellence



Project Images

Learning Landscapes • Denver, Colorado

Hard court games and maps are used as learning components.

Outdoor classroom, shade structure and hard surface games

Rudy Bruner Award for Urban Excellence

Project Images

Early Childhood education area at Teller Elementary constructed summer 2010

One of kind shade structure at Holme Elementary

Project Images

Community gateway and shade structure at the historical Ashley Elementary.

Bold design features at McGlone Elementary constructed in Summer of 2010

Rudy Bruner Award for Urban Excellence

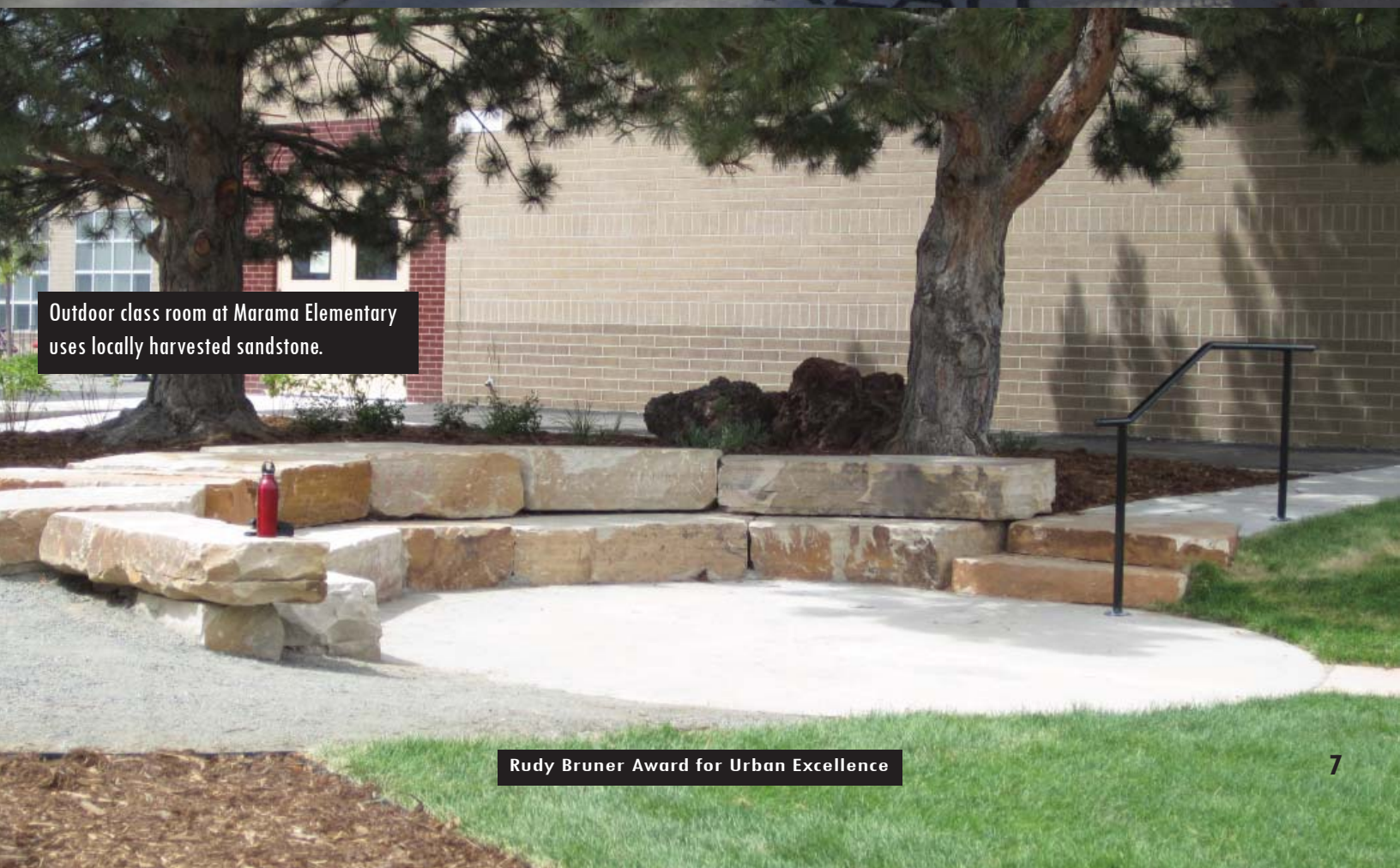
Project Images

A river 'Confluence' was the theme for the historic Dora Moore School in a dense, urban neighborhood on Capitol Hill.

At Force Elementary - The Plaza of the America's can be seen in this fish eye aerial. South America was made out of multiple materials including concrete and hot poured recycled rubber matting.

Project Images

Community gateway and shade structure at Teller Elementary.

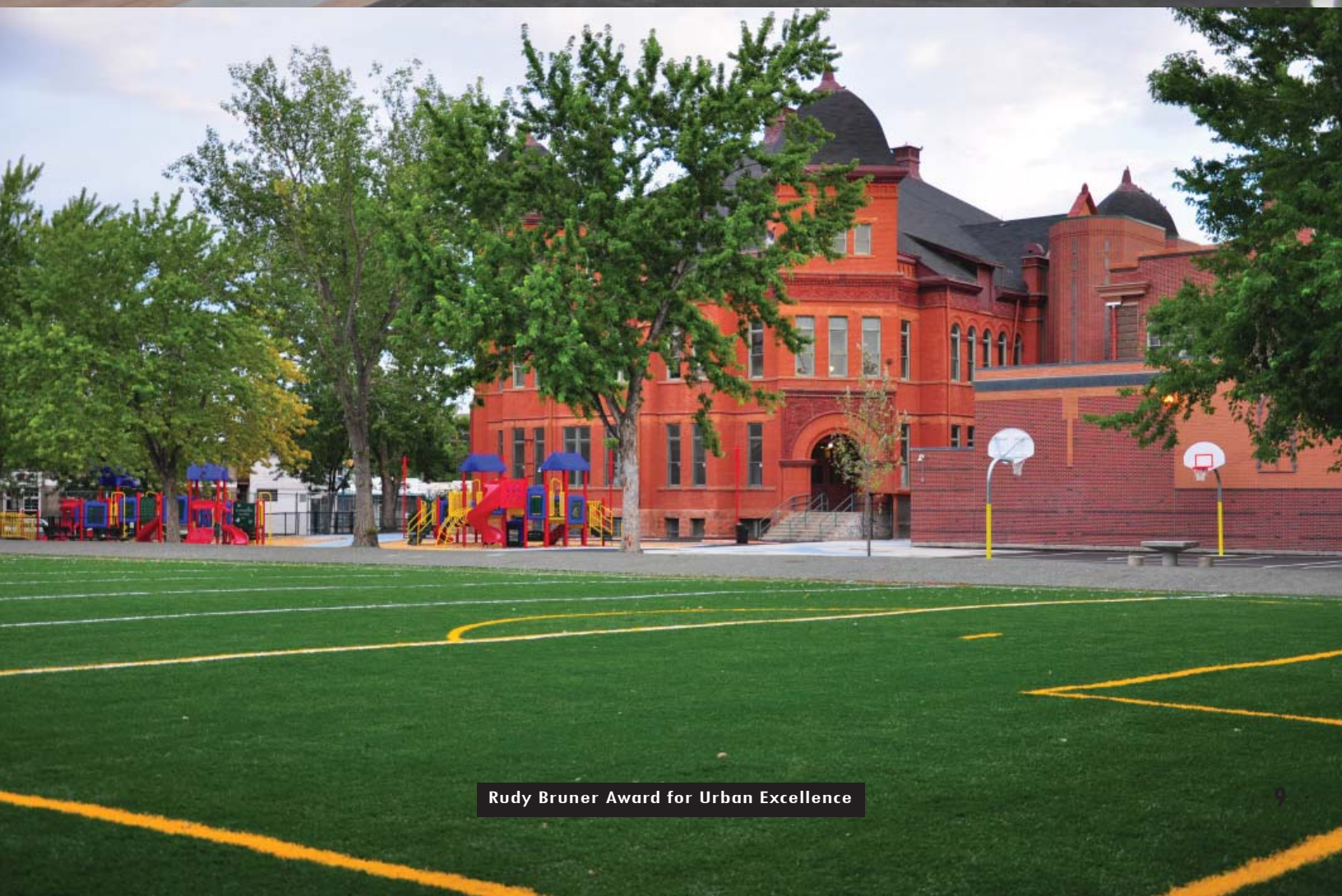


Outdoor class room at Marama Elementary uses locally harvested sandstone.

Project Images

Project Images

Shade structure designed by graduate student Christine Clarck



Rudy Bruner Award for Urban Excellence

Project Images

Learning Landscapes • Denver, Colorado

Tile project for Steck Elementary where students painted tiles in art class and the contractor installed them.

Rudy Bruner Award for Urban Excellence

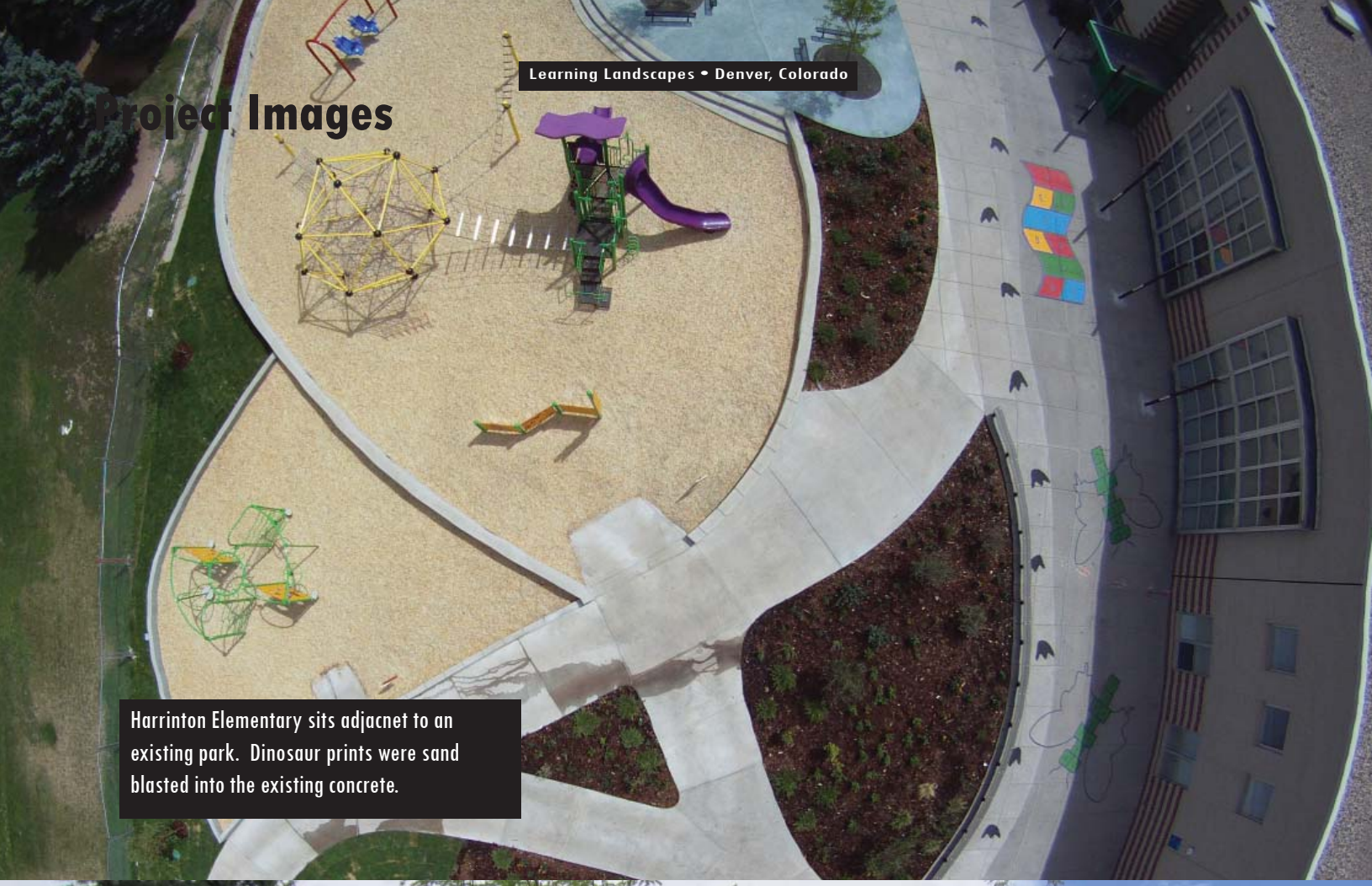
Project Images

Project Images

Learning Landscapes • Denver, Colorado

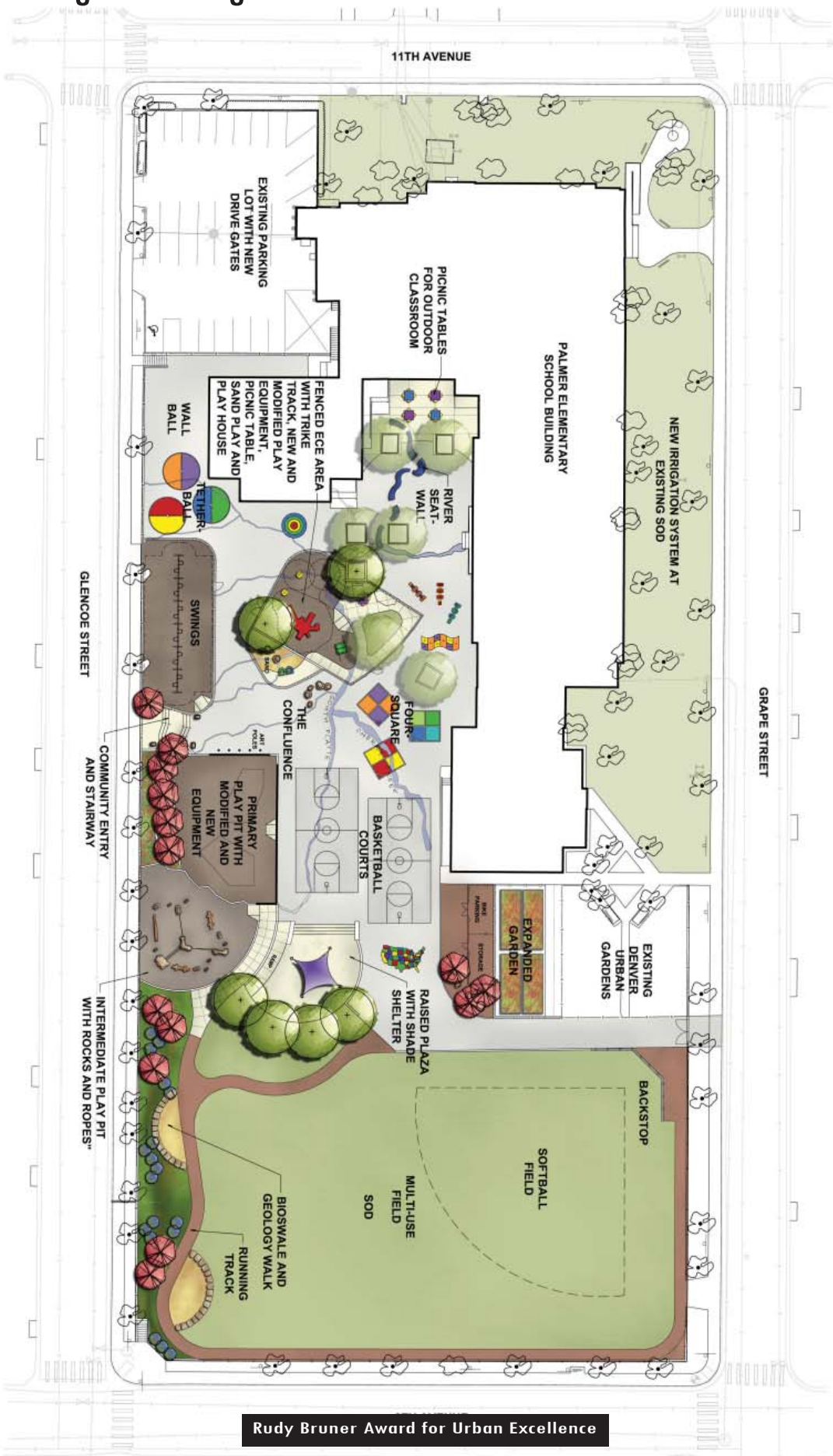
Dora Moore school has a new artificial turf field. In the previous 10 years the sod field had been replaced 3 times dues to high use in this dense urban neighborhood.

Project Images

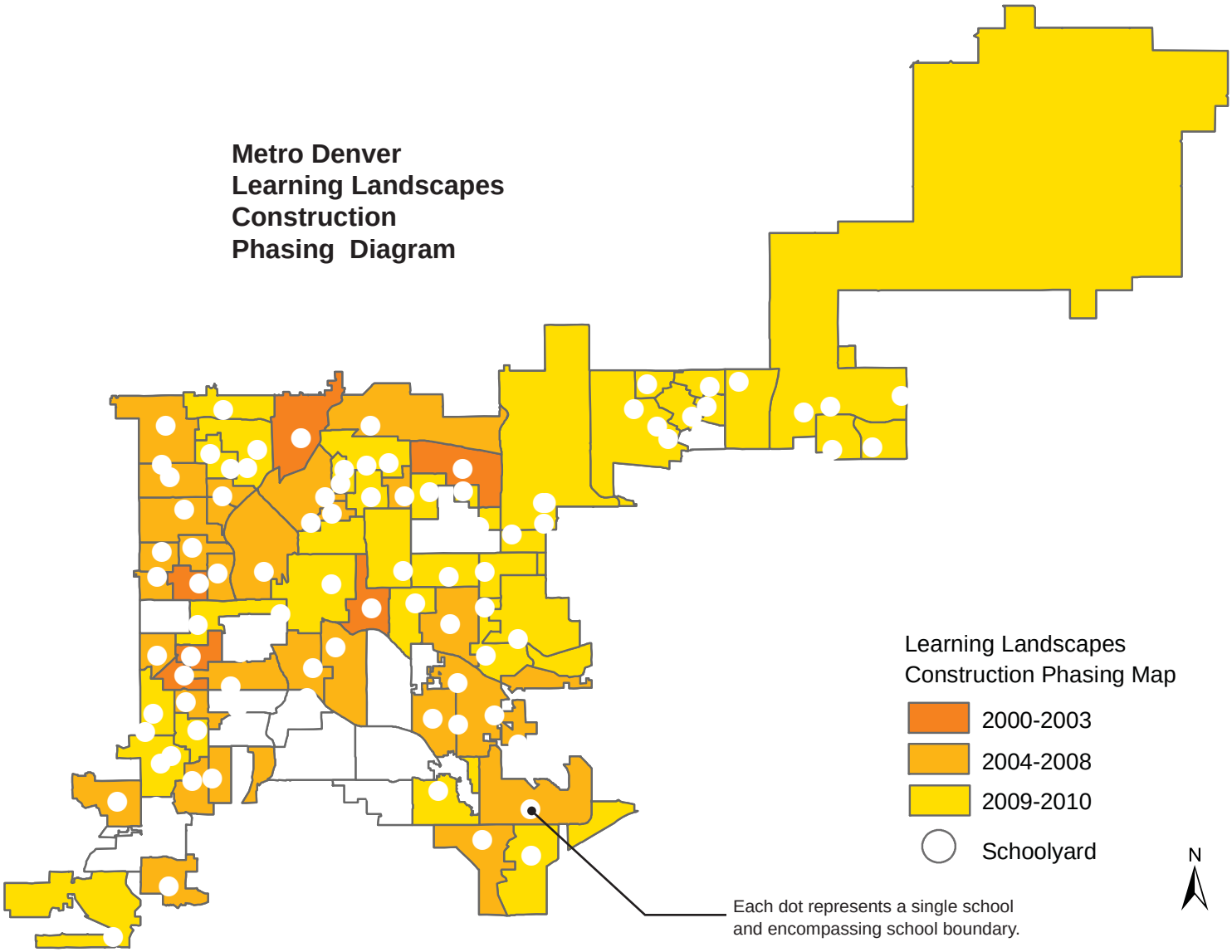


Harrinton Elementary sits adjacnet to an existing park. Dinosaur prints were sand blasted into the existing concrete.

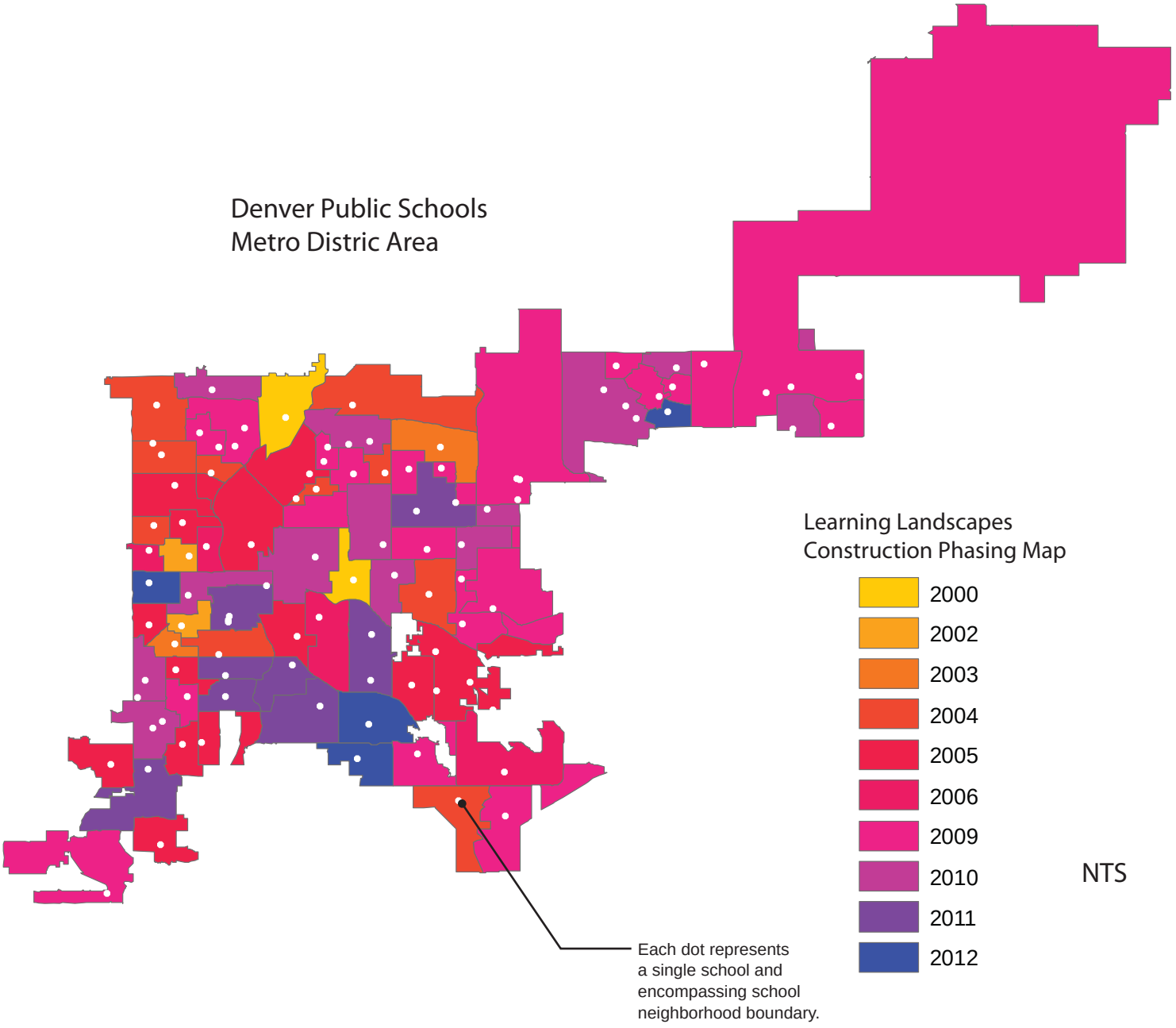
Maps, Drawings and Diagrams



Maps, Drawings and Diagrams



Maps, Drawings and Diagrams



Teller Elementary:
Existing Site Analysis


Building Front


Main Building Entry


Front Lawn


CE/ Primary Play Area


Swings


Alcove

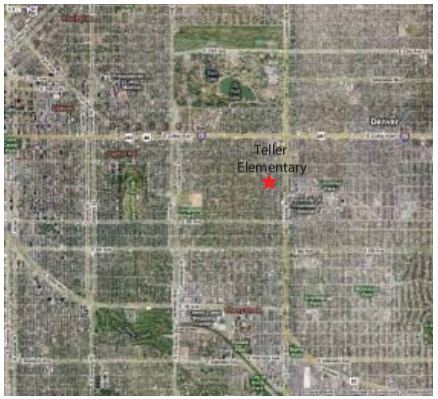

Adjacent Dumpsters


Intermediate Play Area


Basketball Court


Athletic Field

Learning Landscapes • Denver, Colorado



Location Map

Teller Elementary is located in the Congress Park Neighborhood, and is bordered by 11th street to the south, 12th street to the north, Garfield street to the west and Jackson street to the east.

-The ECE and primary play areas are combined and located in the southwest corner.

-The swings are located on the south side of the playground, next to the Field and ECE/ Primary area.

-The intermediate area, basketball court, 4 square a teatherball courts are located in the north east corn the playground.

-The current grass field is 18,600 sf.

-The Intermediate and ECE play structures are rela new.

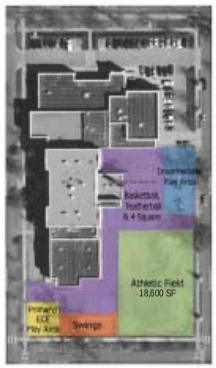
-There is an alcove on the east side of the building currently unusable.

-There are several older Green Ash, Honeylocust a Oak trees on the property.

Existing Surface	Area (SF)	Percentage of Site
Asphalt	21,960	15.6%
Pea Gravel	9,325	6.6%
Grass	32,775	23.3%
Concrete	20,665	14.7%
Building	35,175	25.1%
Misc. (walkways, landscaping)	20,500	14.7%
Total	**140,400**	**100**

Rudy Bruner Award for Urban Excellence

Program



School Comments

-Field not large enough

-Need more elements for ECE and Primary

-Teatherball & 4 Square are the favorite elements

Designer Comments

-ECE/ Primary Area too small

-ECE/ Primary Area & Swings separated from rest of the program

Access - Circulation

School Comments

-Too many entry points

-Swings cut off from Intermediate Area

Designer Comments

-Awkward Circulation

-No organizing principle

Materiality - Vegetation

School Comments

-Pea Gravel is safetly concern and messy

-Need more soft surface play areas

-Need more trees & shade

Designer Comments

-Asphalt is in poor condition

-Beautiful old trees must be preserved

-Sod is in poor condition

Learning Elements

School Comments

-Need more learning elements

Designer Comments

-Need more learning elements

Topog ainage

School Comments

-Drainage issues

-Need flat area for 4 square & Basketball

-Would like the site regraded

Designer Comments

-Several drainage issues

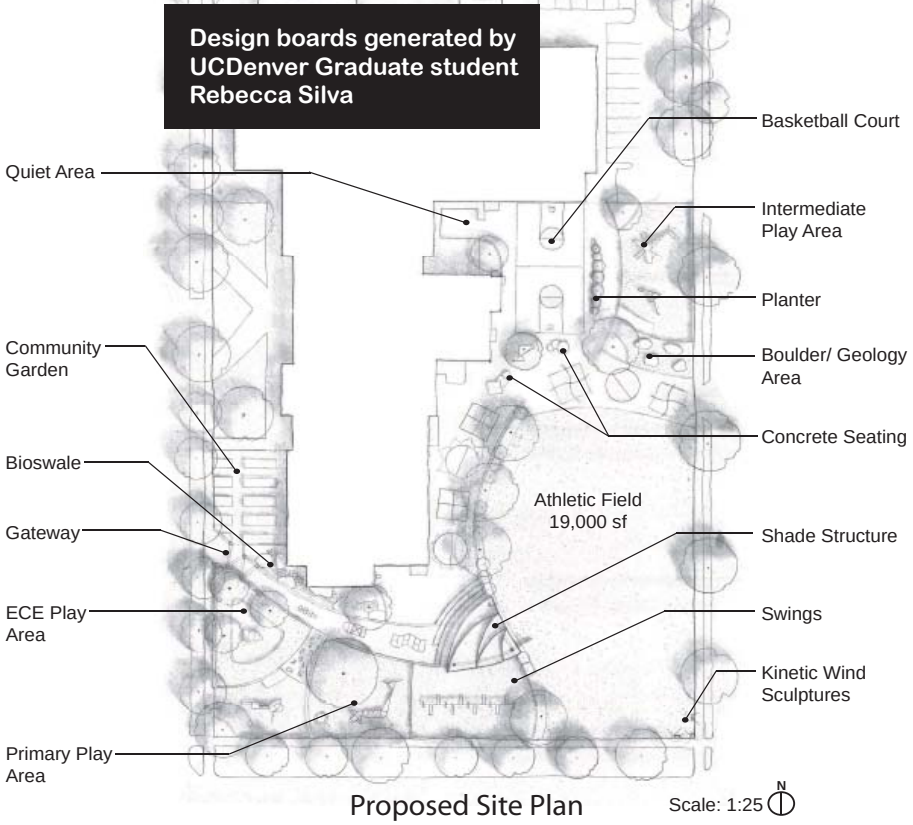
-15' difference in elevation from SW corner to NE corner

Design boards generated by UCDenver Graduate student Rebecca Silva

Learning Landscapes • Denver, Colorado

Maps, Drawings and Diagrams

Design boards generated by UCDenver Graduate student Rebecca Silva



Proposed Site Plan Scale: 1:25 N

Shade Structure

This metal structure will encompass an elevation change and a sundial. It will be centrally located and border the main entry walkway, the field and swings. It will also include references to the four elements, four seasons and four directions.

Teller Gateway

This simple metal structure will welcome visitors from Garfield Street. The series of arches will span from a retaining wall of the ECE area to ground level on the other side. It will include the school name and encourage vegetation growth.

Bioswale

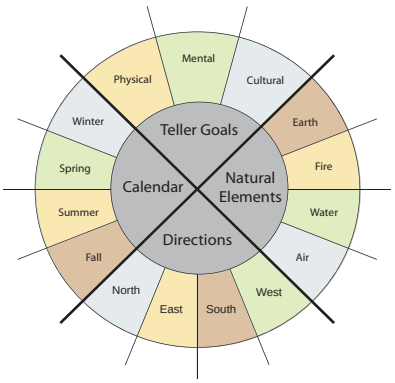
A bioswale will be created to deal with drainage issues at the south west corner of the building. It will also be used to teach children about stormwater, drainage and water issues.

Community Garden

The community garden is located around the front of the school, adjacent to the Gateway. It can further integrate the school with the community, as well as being used for education. Children can learn about ecology, plants and soils.

Teller Elementary: 4 Seasons - 4 Elements - 4 Directions

- The previous design was based on principles from Machu Picchu
- Basing a design on a specific place, can lead to a superficial imitation of form and material
- Paring down the parti from Machu Picchu to essential elements allows greater design freedom and provides a clearer direction
- The main objective for the proposed design is to simplify and increase its legibility
- The 4 Seasons, Elements, Directions are principles common to several cultures across the world and throughout history
- The new principles will provide more opportunities to tie into Teller's curriculum



Fire - Summer - East

Shadows, Sundial, Temperature Elements, Sun Learning Pillar

The Fire zone can be used to observe the characteristics of sunlight, and other forms of energy. Fire plays a role in chemistry, both internal and external of the body.

Earth - Fall - South

Sand box, Habitat Area, Boulders/ Geology Area, Earth Learning Pillar

The Earth zone can be used to explore principles of geology and ecology. Climbing and seating boulders can reflect rock types, fossils can be tied to time and a calendar. Sand boxes and gardens can be used to provide tactile experiences and temporal planting elements.

Air - Winter - North

Cloud Murals, Weather Elements, Kinetic Sculpture, Air Learing Pillar

The Air zone can be used for weather, climate, and respiratory studies. Measurement devices can be set up to measure the wind and climate changes. Kinetic sculptures can reflect this element and show motion and change. Small generators can be incorporated into the learning pillars to show differences in power.

Water - Spring - West

Precipitation Elements, Water Channels, Bioswale, Water Learning Pillar

The Water zone can be used to show how fluids behave and how changes in temperature affect the physical properties of fluids. Investigations of mass and volume can be reinforced by the malleable properties of fluids.

Precendents & Inspirations:

Native Americans: Lakota Tribe

- The Lakota Tribe believed in the four corners of the universe
- Black is for the west, which brings thunder and rain
- White is for the north, wh
- Red is for the east, which brings the light
- Yellow is for the south, the earth, which brings the power to grow

Peru: Incas

- The Incas were polytheistic, believing in multiple gods.
- Inti is the Sun God
- Kon is the god of southern wind
- They also developed an advanced calendar based solar and lunar cycles

Mexico: Zapotec Civilization

- The Zapotec were also polytheistic
- Cocijo is their rain god
- Coquihani is the god of light or fire
- They believe that their ancestors came from the natural elements such as wind, rain, fire and earth
- They used a 365 day solar calendar, and a 260 day sacred calendar

China: Wu Xing

- Wu Xing is the Chinese representation for the five elements: wood, fire, earth, metal and water
- All of these elements are said to be cyclical
- The natural elements are also often associated with seasonal cycles
- Many of their beliefs are based on the five cardinal points: North, South, East, West and Center

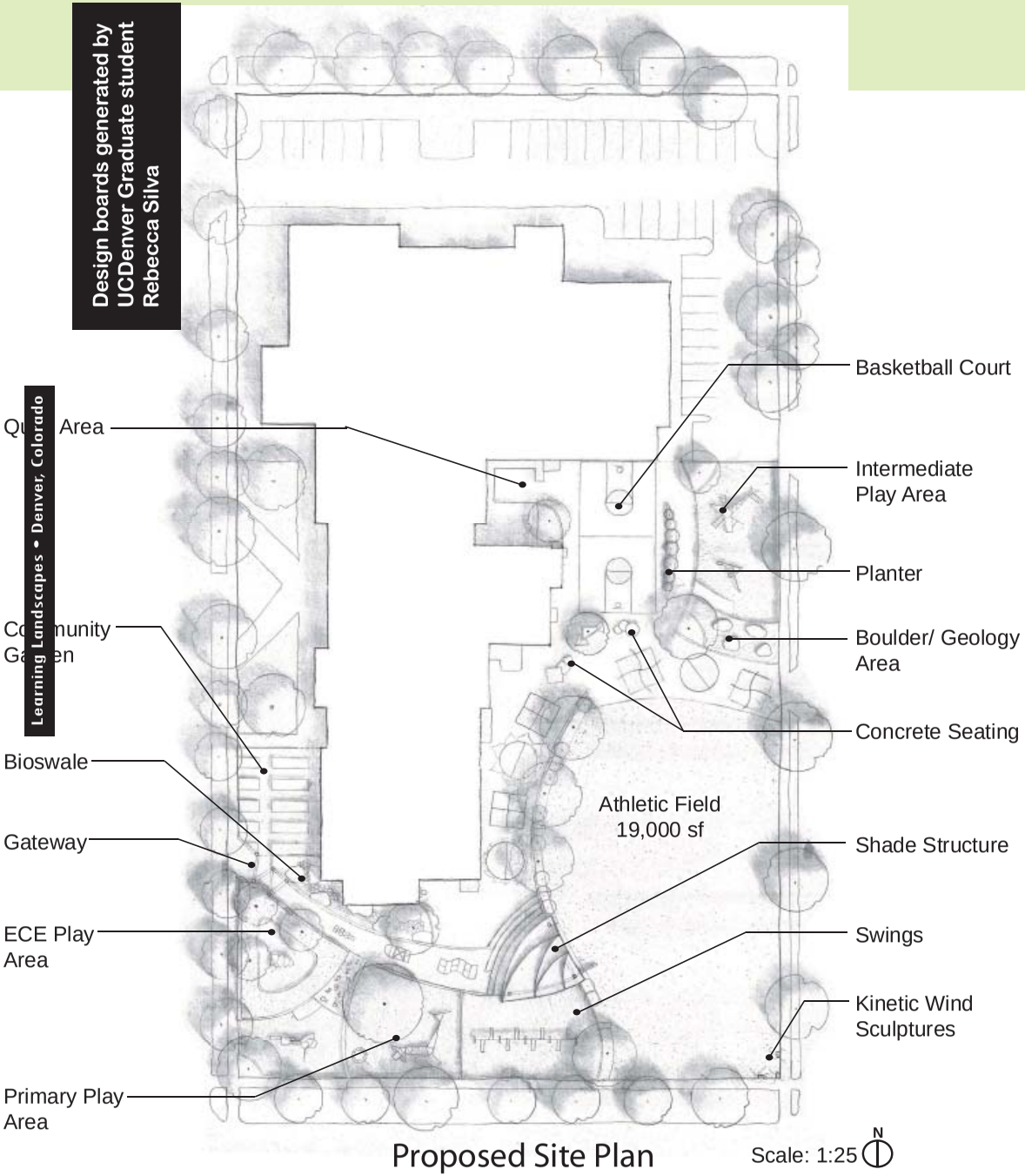
Rudy Bruner Award for Urban Excellence

Teller Elementary:

Schematic Design

Design boards generated by UCDenver Graduate student Rebecca Silva

Learning Landscapes • Denver, Colorado



Proposed Site Plan

Scale: 1:25

Shade Structure

This metal structure will encompass an elevation change and a sundial. It will be centrally located and border the main entry walkway, the field and swings. It will also include references to the four elements, four seasons and four directions.

Teller Gateway

This simple metal structure will welcome visitors from Garfield Street. The series of arches will span from a retaining wall of the ECE area to ground level on the other side. It will include the school name and encourage vegetation growth.

Bioswale

A bioswale will be created to deal with drainage issues at the south west corner of the building. It will also be used to teach children about stormwater, drainage and water issues.

Community Garden

The community garden is located around the front of the school, adjacent to the Gateway. It can further integrate the school with the community, as well as being used for education. Children can learn about ecology, plants and soils.

Rudy Bruner Award for Urban Excellence

Teller Elementary:
Design Analysis

Design Development Plan

Changes from Previous Design Development to Proposed:

Space
- The design development plan does not use space as efficiently as possible
- The new plan condenses the program and offers more cohesive ciruclation

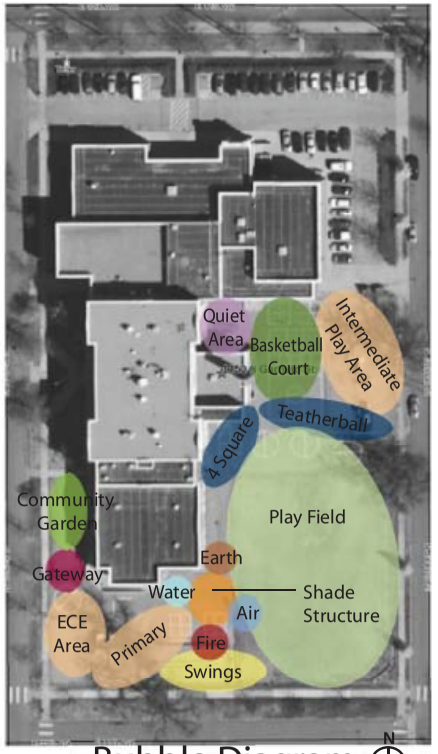
Elements
- The previous plan included a multitude of learning and play elements, but they lacked cohesion, and appeared to be squeezed in randomly
- The new plan uses many of the same elements, but organizes them in a recognizable way

Budget
- The previous design was 110% over budget
- The new plan reorganized elements to potentially recycle existing site conditions
- It also changes materials to reduce cost

Design
- The previous design was based on Machu Picchu
- The proposed design is base d on 4 seasons, elements, directions

Design Development Program
Geology Area
Building Entry Area
ECE Sod Hills
ECE Play structure
ECE Sand box
Primary Play Structure
Swings
Gateway
Shade Structure
Athletic Field
4 Square courts
Teatherball courts
Math Trail
Intermediate Play structure
Planter
Quiet Reading Area
Basketball court
Sundial
Solar System

Proposed Program
Earth/ Boulder Area
Water/ Bioswale Area
Air/ Kinetic Sculpture
Fire/ Sun Area
ECE Play Area
Primary Play Structure
Swings
Gateway
Shade Structure
Athletic Field
4 Square courts
Teatherball courts
Intermediate Play structure
Quiet Reading Area
Basketball court
Community Garden
Habitat Area



Bubble Diagram

Parti Diagram

Rudy Bruner Award for Urban Excellence

Program

School Comments
-Field not large enough
-There needs to be a 4 square court for ECE and primary
-Would prefer separate swings for primary and intermediate

Designer Comments
-ECE Area extends around the front of the building
-Entry area unnecessary
-Element areas separated

Access - Circulation

School Comments
-Don't like the gateway on the southwest corner
-Too many entry points

Designer Comments
-Circulation is confusing through intermediate area
-Access to swings is restricted

Materiality - Vegetation

School Comments
-Not enough trees and shade
-Resilient surface is unnecessary
-Would like more native or habitat areas

Designer Comments
-Synthetic turf is unneccessary and expensive
-Sod hills are difficult to maintain
-Still a lot of asphalt

Learning Elements

School Comments
-A lot of different elements- somewhat confusing
-Would like to incorporate more natural elements

Designer Comments
-No cohesion between learning elements
-Math trail is undefined
-Could incorporate more elements, as long as they are legible

Topography - Drainage

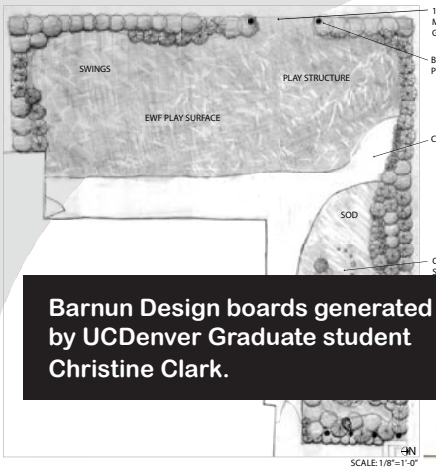
School Comments
-Need flat area for 4 square & Basketball
-Would like to include bioswale or stormwater elements

Designer Comments
-Several drainage issues still unresolved
-Need a creative way to deal with difference in elevation
-Overall grading plan incomplete

DETAILS AND MATERIALITY

Learning Landscapes • Denver, Colorado

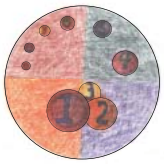
ECE PLAY AREA



Barnun Design boards generated by UCDenver Graduate student Christine Clark.

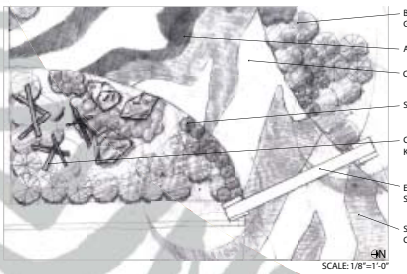
CIRCUS THEME

PLAN:
COLORED CONCRETE SEATS WITH A COLORED RUBBER FLOOR SURFACE



ELEVATION:

ENTRANCE ZEBRA GROUND PATTERN



CONCRETE/ ASPHALT CONTRAST

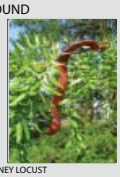
CONCRETE/ SAND BLASTED CONCRETE CONTRAST

KOREAN SPICE VIBUMUM- LARVAL HOST

BUTTERFLY BUSH COMPACT- NECTOR SOURCE

BLUE OAT GRASS-EGGS

SOUND



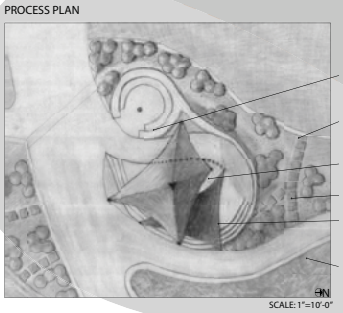
HONEY LOCUST

PURPLE HYACINTH BEAN

FEATHER REED GRASS

SHADE STRUCTURE: CENTER STAGE MUSICAL INSTRUMENT

PROCESS PLAN

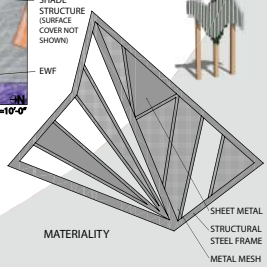


CURRENT PLAN

ELEVATION

SCALE: 1/8"=1'-0"

MATERIALITY

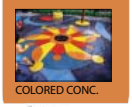


MATERIALS:

STEEL TUBES

WIRE MESH

RECYCLED GLASS IN CONCRETE



COLORED CONC.

MUSICAL TUBES

DRAWN BY:
CHRISTINE CLARK
DATE: DECEMBER 2, 2009

BARNUM ELEMENTARY

CIRCUS THEME

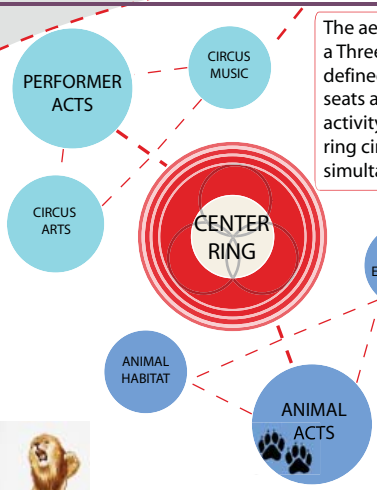
P.T. BARNUM WAS A FAMOUS RESIDENT ENTERTAINER.

THE DESIGN THEME FOR BARNUM ELEMENTARY SCHOOL WILL REFLECT THE IDEAS AND DESIGN IDEALS OF A CIRCUS

FORM

ANIMAL FOOTPRINTS

PATTERN



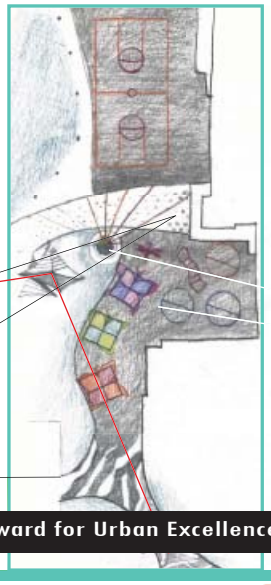
The aesthetic ordering system is based on a Three Ring Circus. The circus can be defined as an "Arena Enclosed by tiers of seats and used for the spectacles" or an activity of "Showy Public Display". A three ring circus hosts performances simultaneously in three separate rings.

LEARNING IN THE LANDSCAPE:

COLORADO ANIMAL FOOTPRINTS
- 7 paths originate at the lunch room playground exit.
- The footprints morph from large to small mammal footprints.
- The name of the mammal accompanies the footprint

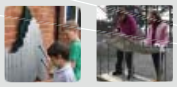
WORLD MAP MURAL
- The Mural will have animal images to accompany the 7 continents

THEME COMPONENTS:

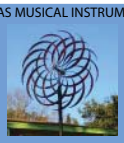


PLAYGROUND AS A SOUND SYSTEM

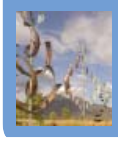
SHADE STRUCTURE:
CENTER STAGE MUSICAL INSTRUMENT



COMMUNITY ART AS MUSICAL INSTRUMENTS



ENTRANCE ART



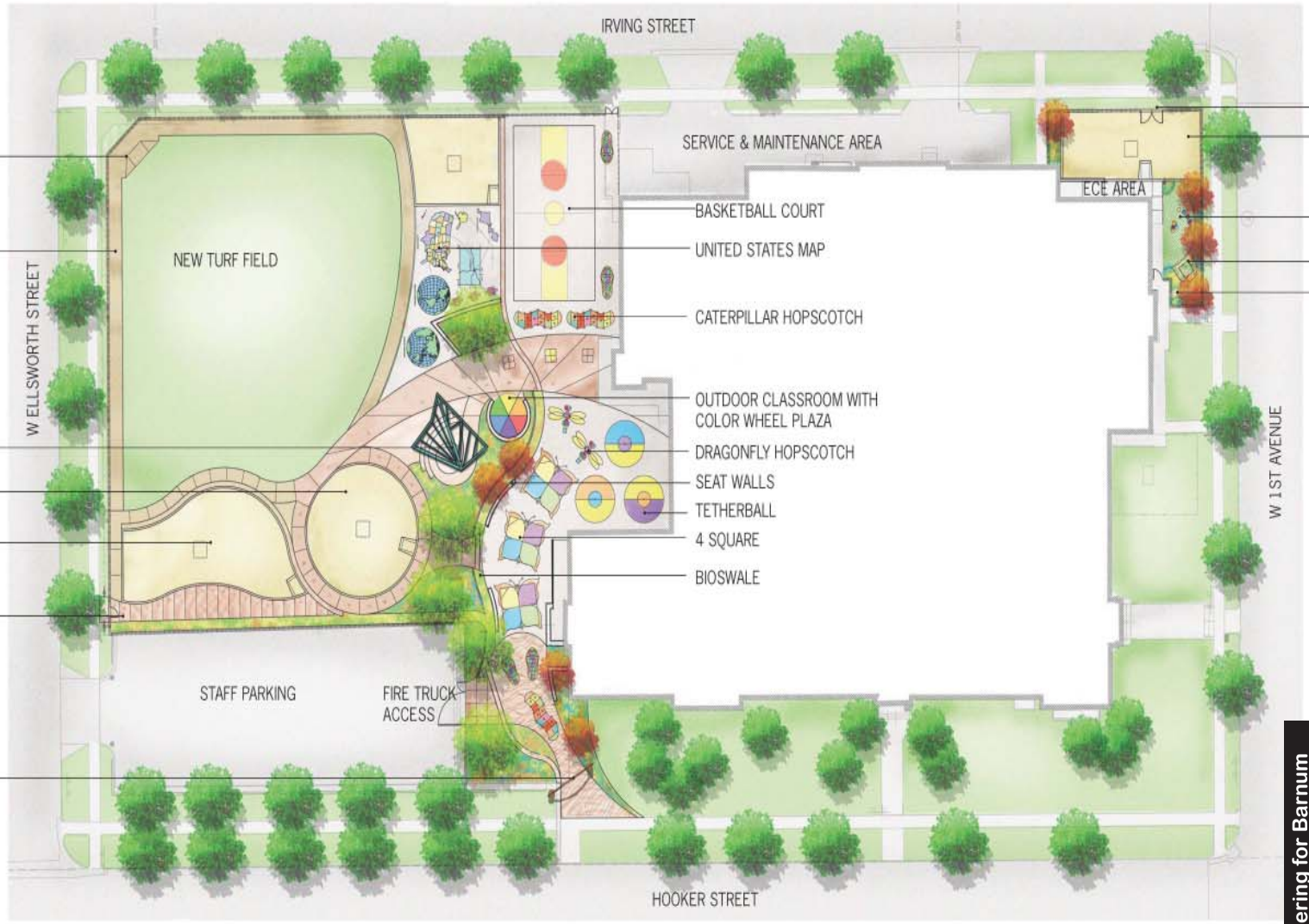
COLOR

Design boards generated by UCDenver Graduate student Christine Clark.

Rudy Bruner Award for Urban Excellence

DRAWN BY:
CHRISTINE CLARK
DATE: DECEMBER 2, 2009

BARNUM BEARS



Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Final rendering for Barnum Elementary constructed by Russell Mills Studio

Design Process

0 10 20 40

UNIVERSITY OF COLORADO DENVER

Barnum Elementary Learning Landscape

Master Plan

russell+mills studios

Aerial photo of 'Plaza of the Americas'

WEST FLORIDA AVENUE

Existing Storage Building

Existing Parking Lot

Colorado Discovery Raised Plaza w/Points of Interest from Around the World

Community Plaza

New Ornamental Tree, Typ.

New Shade Tree, Typ.

Basketball Court, Typ.

"North America" Striping

Backstop

Asphalt Play Pad, Typ.

Painted Games, Typ.

Native Seed

Intermediate Play Area

"Equator" Boulder Seating Area

"Equator" Seat Boulders with Musical Instruments

Multi-Use Field

Climbable Animals in Poured-in-Place Surfacing

Primary Play Area

Running Track

Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Swing Pit

Literacy Performance Plaza with Stage and Amphitheater

Final Rendering of Force Elementary by Design Concepts. Notice the Plaza of the Americas.

Raised Garden

Community Entry with Gateway Columns

Sand

Native Seed

ECE Play Area

Sod

WEST IOWA AVENUE

Force Elementary Learning Landscape

Denver Public Schools

January 2010

DESIGN CONCEPT

0 10 20 40 60

Scale: 1"=20'

Colorado Avenue

Learning Landscapes • Denver, Colorado

Preliminary design for Schmitt Elementary scheduled for construction Summer 2011

Tejon Street

Existing condition of school yard includes 4 acres of pea gravel and 1950's play equip.

Rudy Bruner Award for Urban Excellence

Jewell Avenue

"*Peaks to Prairies*" was the inspiration for the Barney Ford Elementary School playground area, as a means to create an opportunity for students to learn about the effects wind and weather have on the surrounding landscapes in Colorado.

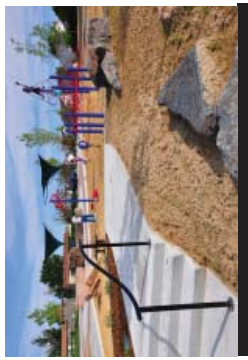
Key Focus Points:

- ADA accessible plaza with shelter
- 1 acre multi-use play field
- Community garden
- Themed areas of social interaction and playground activities
- Creates a sense of pride and ownership in the community
- Landscape enhancement
- Gateway feature inspired by Longs Peak keyhole
- Age appropriate play equipment

Learning Lessons:

- Water infiltration garden with creative sandblasting, to help understand the effects water has on the land
- Kinetic sculpture to demonstrate the effects of wind in relation to the surrounding environment
- Interactive sensory garden to educate about the "Five Senses"
- Natural bio-swale showing stormwater runoff solutions
- Boulders throughout the site representing geological rock types from around Colorado

Learning Landscapes • Denver, Colorado



Play grounds were constructed summer 2010

Maps and Diagrams

Barney Ford Elementary

Learning Landscape Master Plan

Learning Landscapes • Denver, Colorado

Graduate students from UCD make presentations about their designs to a guest panal of private practionsers. Fall 2010

Rudy Bruner Award for Urban Excellence

Children's Drawings

Children's drawings of their dream landscape conducted during master planning interviews

Rudy Bruner Award for Urban Excellence

Student Drawing

Children's Drawings

Children's drawings of their dream landscape conducted during master planning interviews

Children's Drawings

Children's drawings used for the construction of play animals at Force Elementary

Before and Afters

Columbia Elementary
constructed in 2006

Rudy Bruner Award for Urban Excellence

Before and Afters

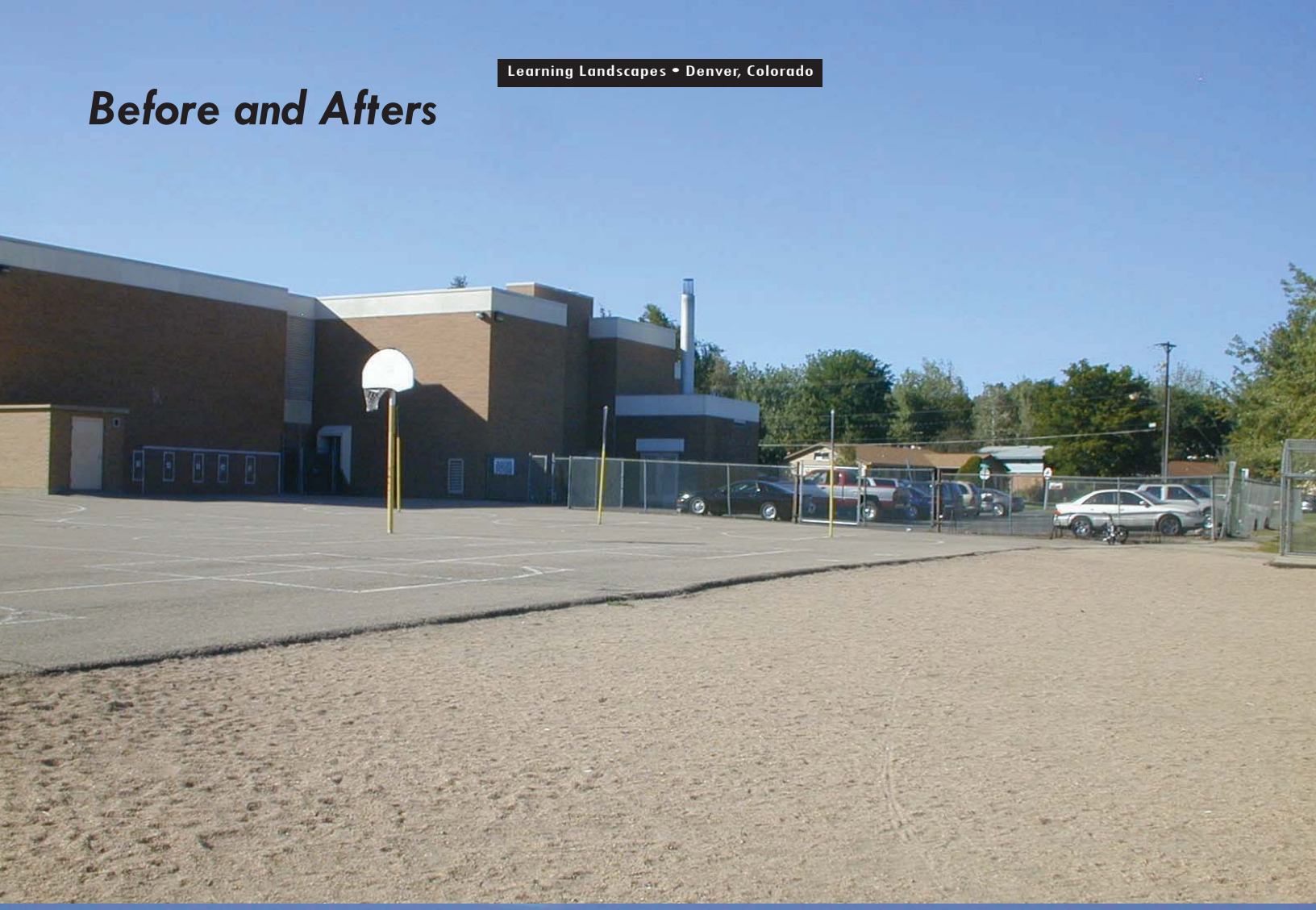
Greenlee Elementary constructed in 2006

Rudy Bruner Award for Urban Excellence

Before and Afters

Bradley Elementary boasted 5 acres of pea gravel. The site was so big - the available funds required the site construction to occcur in 3 phases. There is a wonderful shade sturcutere now on top of the mound (inset below) and one of Denver's Largest Urban 'Farms' operated by a separate non profit entity.

Before and Afters



Rudy Bruner Award for Urban Excellence

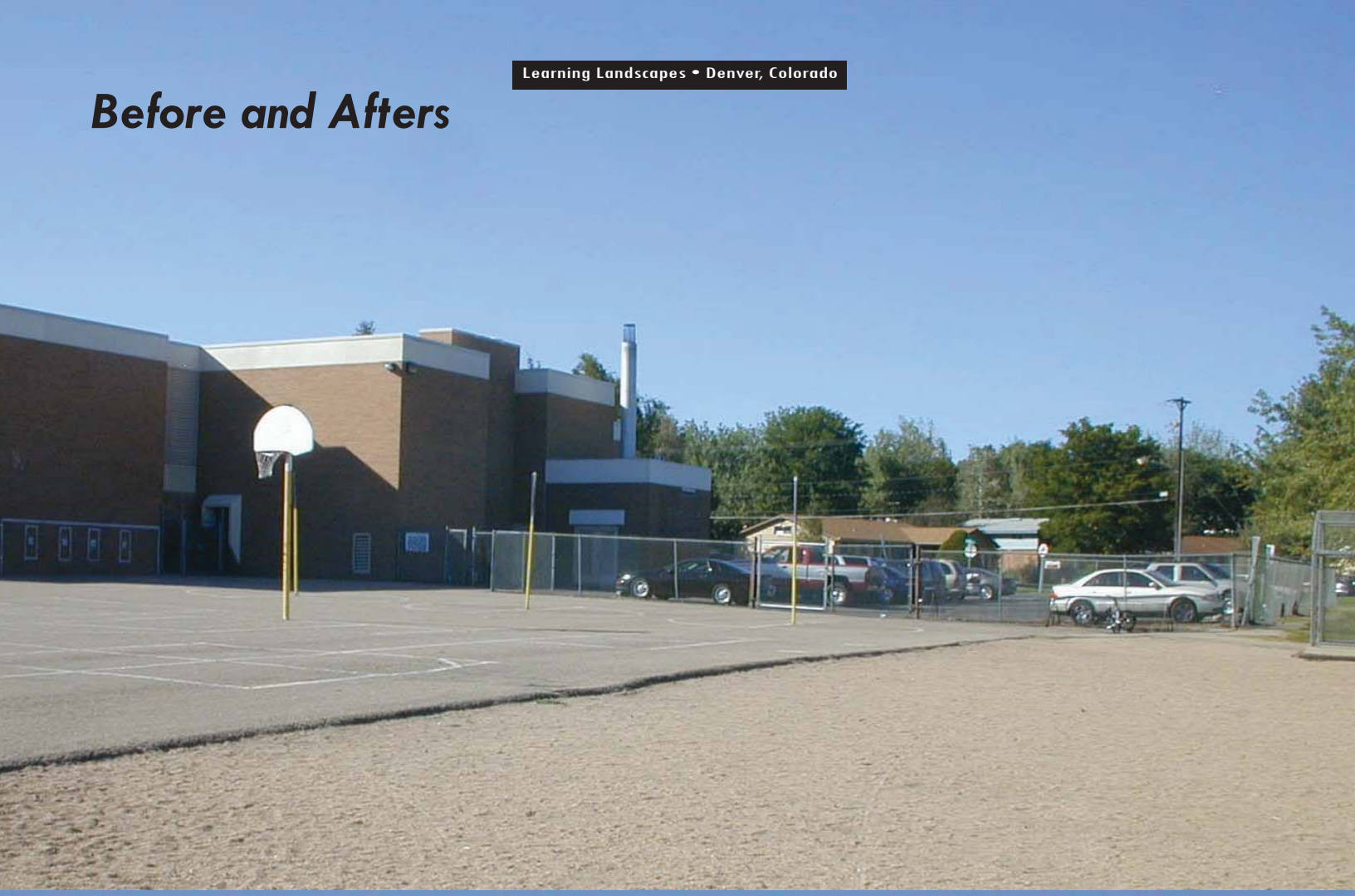
Before and Afters

Before and Afters

Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Before and Afters



Learning Landscapes • Denver, Colorado

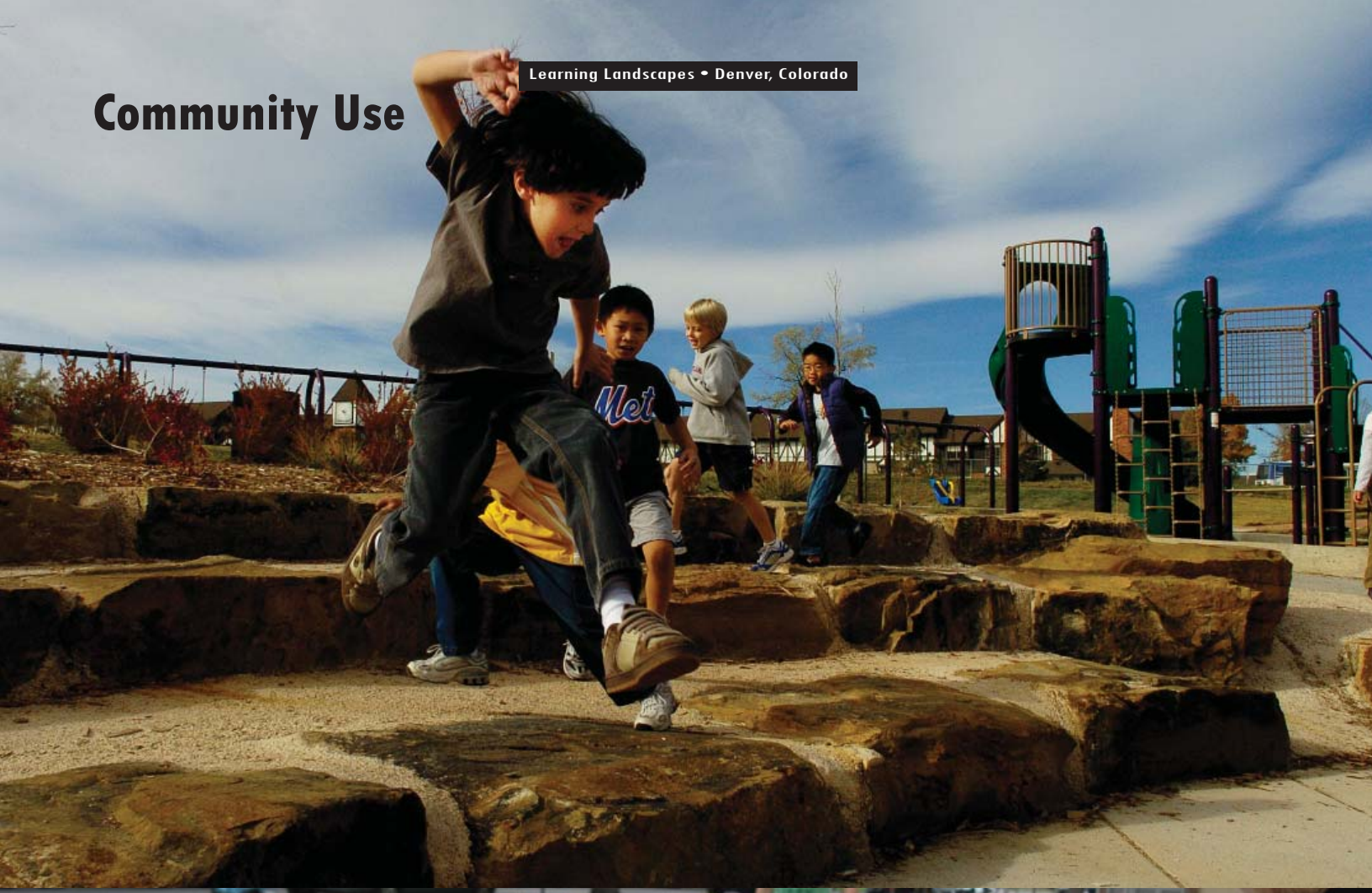
Before and Afters

Rudy Bruner Award for Urban Excellence

Dedications & Ceremonies

Rudy Bruner Award for Urban Excellence

Community Use

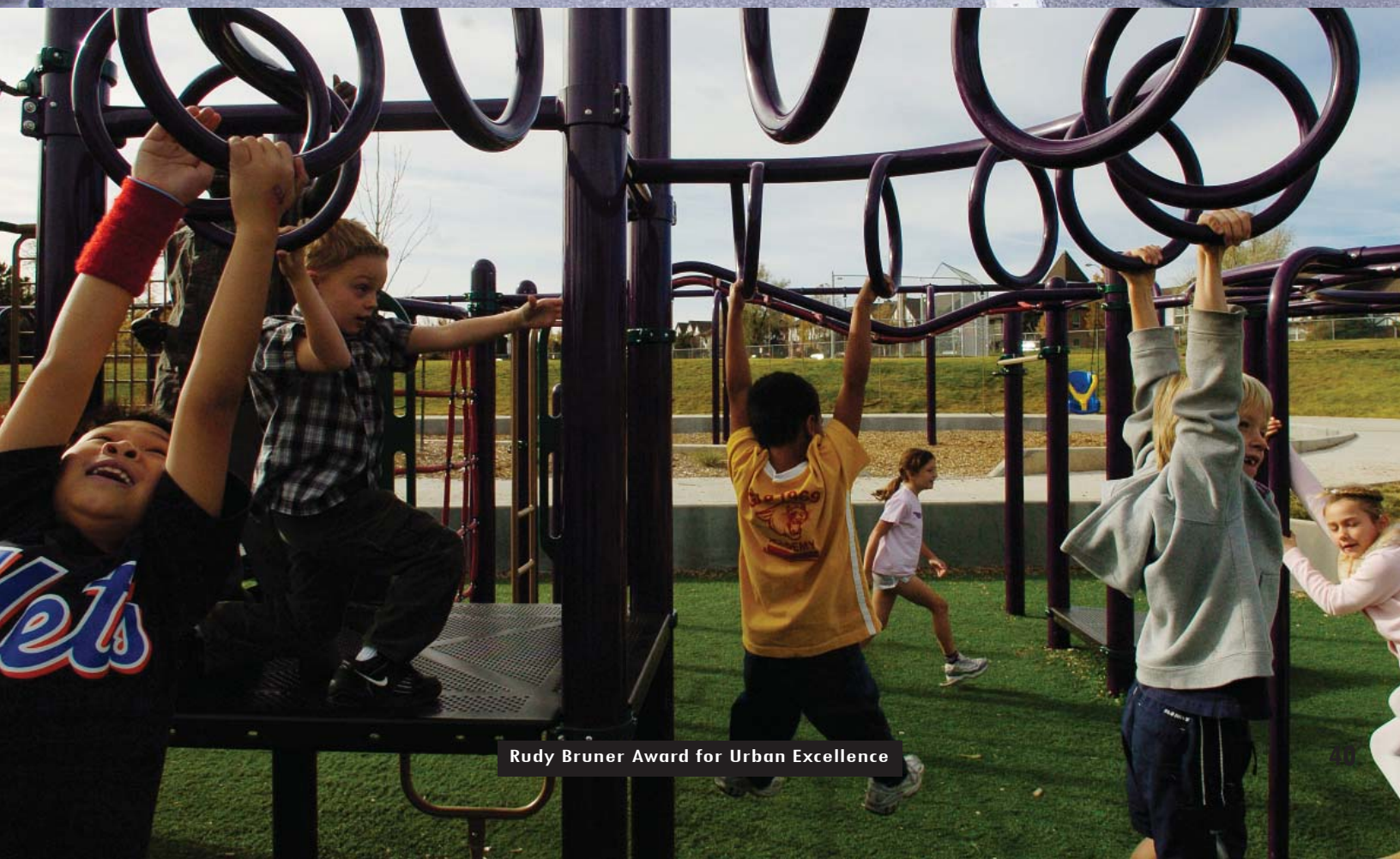


Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Community Use

Learning Landscapes • Denver, Colorado



Rudy Bruner Award for Urban Excellence

Community Use

Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Volunteers

Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Volunteers

Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

Volunteers

Community volunteer planting day at Beachcourt Elementary summer 2010.

Volunteer tree planting in conjunction with Biennial of the Americas at Carson Elementary Summer 2010

Volunteers and Community Participation

Community volunteer planting day at Beachcourt Elementary summer 2010

Collaborative project with parents and art class painting banner pole canvases.

Learning Landscapes • Denver, Colorado

Volunteers

Volunteers

Learning Landscapes • Denver, Colorado

Rudy Bruner Award for Urban Excellence

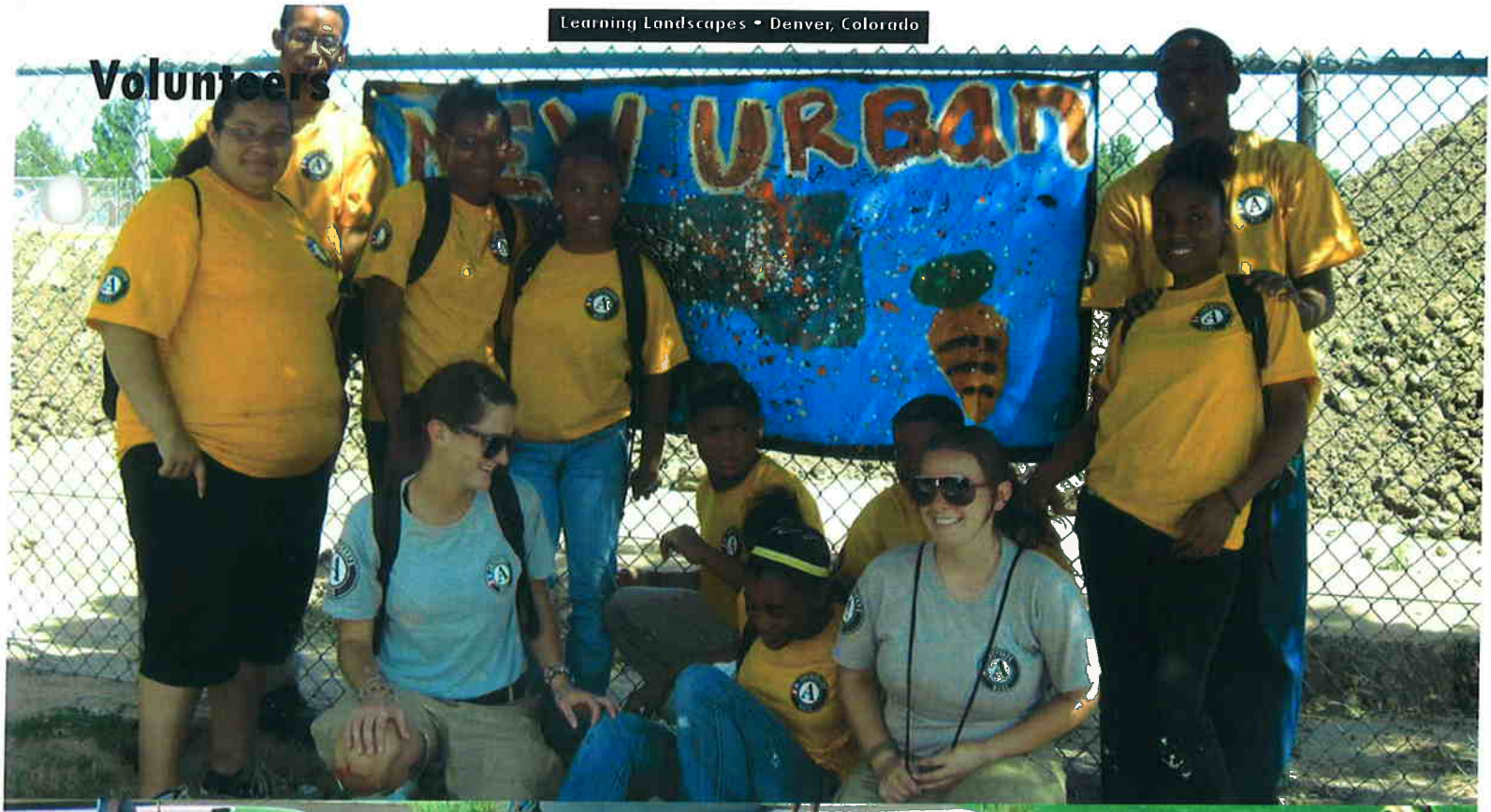
Volunteers and Community Participation

Community volunteer planting day at Beachcourt Elementary summer 2010

Collaborative project with parents and art class painting banner pole canvases.

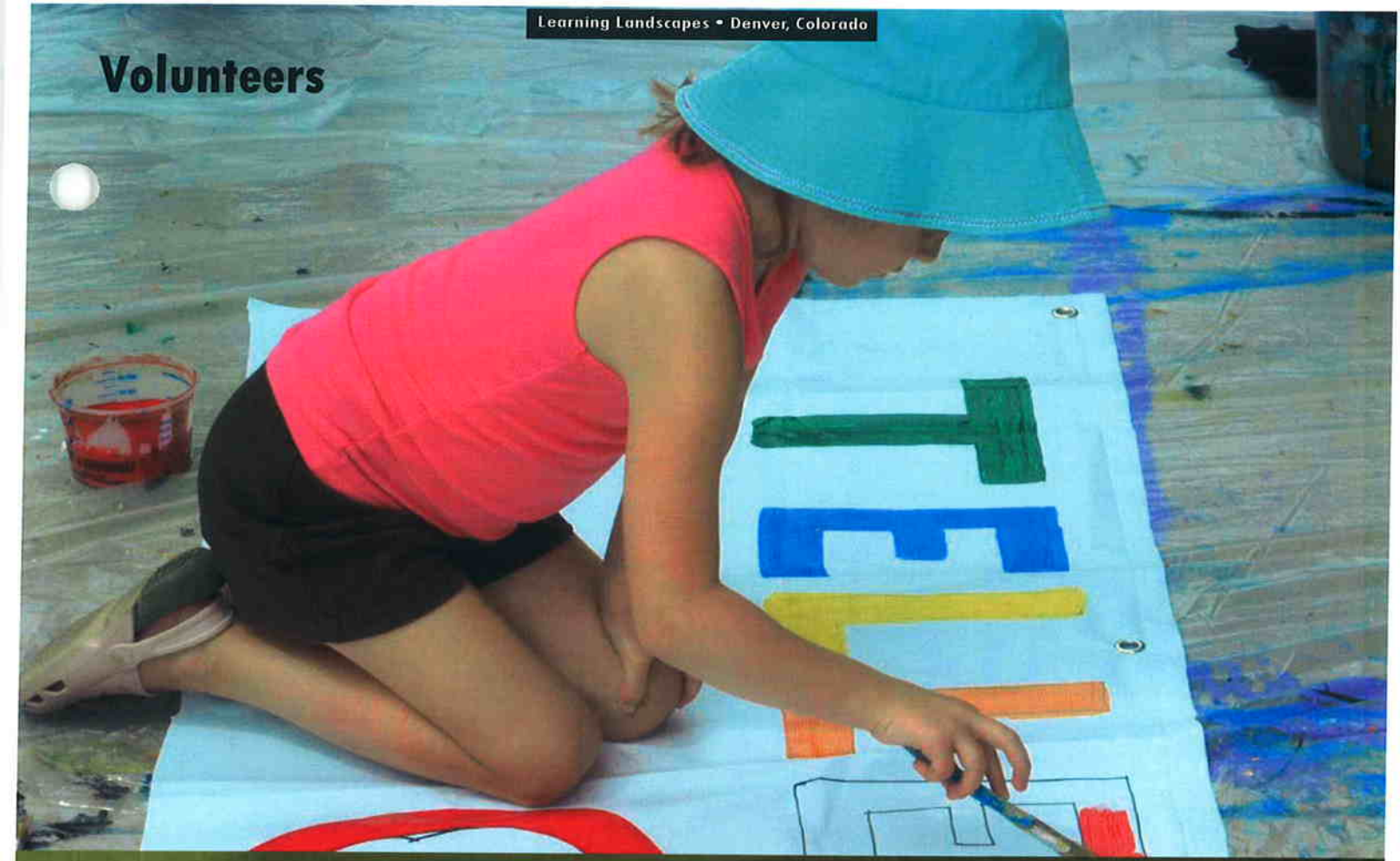
Rudy Bruner Award for Urban Excellence

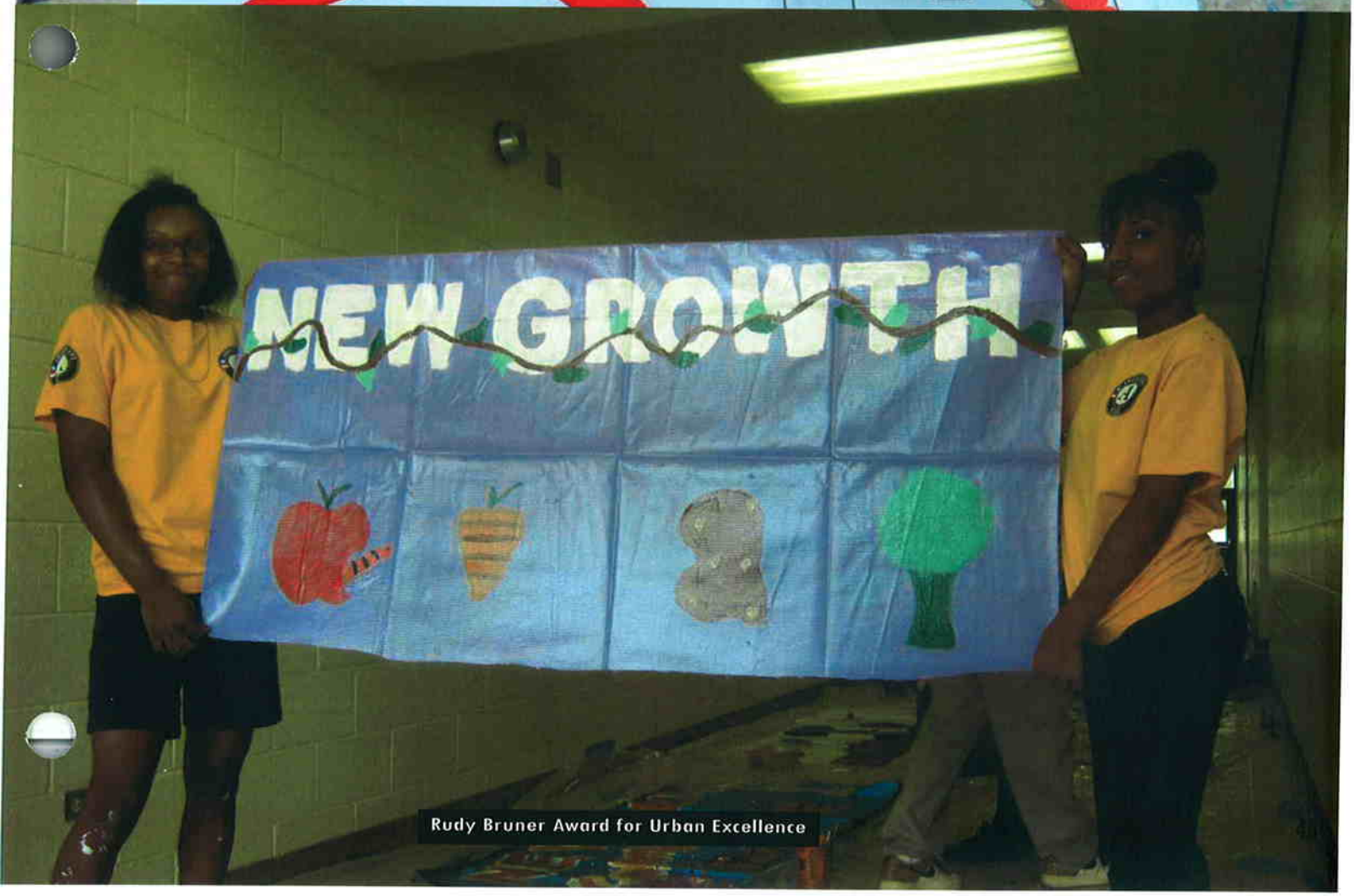
Volunteers



Learning Landscapes • Denver, Colorado

Volunteers





Rudy Bruner Award for Urban Excellence

Pioneer Playground Poem
By Amy Sims
4/29/2010

The time has come
To say goodbye
To rusty, ancient friends

So long old swings
Adios old rings
Our friendship now must end

Out with the old
In with the new
Is what I always say

We Pioneer Panthers
Really need
A safe new place to play

But while we wait
These next few months
Patience is the key

We won't have
Normal recess
That's just the way it has to be

But change
Is necessary
To get this big job done

So you can have
A brand new place
To jump and play and run

So, do your best
To not get stressed
These rules must be obeyed

Cause when it's done
It will be fun...
Unless you're in 6th grade!


THANK YOU!
WE LOVE OUR NEW PLAYGROUND

Denver Public Schools

Proclamation

WHEREAS, it has long been recognized that elementary school playgrounds contribute to the overall learning environment of our children; and

WHEREAS, elementary school playgrounds provide a positive focus for communities and neighborhoods; and

WHEREAS, Lois Brink, Professor, University of Colorado at Denver, has spent countless hours developing and organizing graduate course curriculum and students to design renovations to District No. 1 elementary school playgrounds into Learning Landscapes; and

WHEREAS, Lois Brink, has organized and directed students, community and contractors efforts to construct Learning Landscapes for District No. 1 elementary school playgrounds; and

WHEREAS, Lois Brink's efforts created a safe learning environment for the children and these new playgrounds challenge their emotional, physical and social skills;

NOW THEREFORE BE IT PROCLAIMED that the Board of Education of District No. 1 in the City and County of Denver and State of Colorado officially recognizes and thanks Lois Brink for her extraordinary efforts in support of the children of District No. 1 and the Learning Landscape initiative.

RESOLUTION

City and County of Denver

Resolution No. 2, Series of 2001

Recognizing the Garden Place Academy Alliance

WHEREAS, it has been long recognized that the City and County of Denver cannot have a great city and great neighborhoods without great schools; and,

WHEREAS, for the purpose of transforming the Garden Place Academy playground, an entrepreneurial community-minded alliance was formed. That alliance included: PCL Construction Services; Inc., Greater Outdoors Colorado; Housing and Community Services of Denver; Gates Family Foundation; University of Colorado at Denver; Denver Public Schools; Merrill Lynch; Phil Long Ford; Dominion Capital Group; Strings Restaurant; Garden Place Academy and the PTA; Alinva Crouse, Principal; Rocky Mountain Recreation, Inc.; National Adult Baseball Association; and Americorps; and,

WHEREAS, their tireless commitment to this project has greatly benefited the children of Garden Place Academy and the Globeville community; and,

WHEREAS, this partnership created a safe learning environment for the children as play is the work of children and this new playground challenges their emotional, physical and social skills; and,

WHEREAS, the reduction of vandalism in this public playground is direct evidence that this alliance has given back the community its sense of ownership.

NOW THEREFORE,
BE IT RESOLVED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:

Section 1. That the Council recognizes the extraordinary commitment, vision, and passion of this alliance.

Section 2. That the Clerk of the City and County of Denver shall attest and affix the seal of the City and County of Denver to this resolution, and that a copy hereof be transmitted to the above mentioned alliance: PCL Construction Services; Inc., Greater Outdoors Colorado; Housing and Community Services of Denver; Gates Family Foundation; University of Colorado at Denver; Denver Public Schools; Merrill Lynch; Phil Long Ford; Dominion Capital Group; Strings Restaurant; Garden Place Academy and the PTA; Alinva Crouse, Principal; Rocky Mountain Recreation, Inc.; National Adult Baseball Association; and Americorps.

PASSED BY THE COUNCIL January 8 2001

PRESIDENT

APPROVED 2001

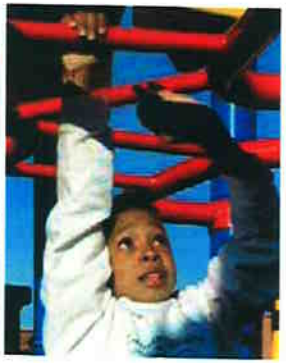
ACTING MAYOR

ATTEST: CLERK

Ex-Officio Clerk of the City and County of Denver

learning landscapes

building community through play



ANNUAL REPORT 2009-2010






EXECUTIVE SUMMARY

learning landscapes
building community through play

Funding:
Denver Public Schools General Obligation Bond
Project Timeline:
April 2009 – July 2013

Denver Learning Landscapes to date:
- **Built Learning Landscapes - 81**
- **Construction costs - $49, 000,000**
- **Elementary Students Served - 38, 723**

Mission Statement:
Learning Landscapes partners UCD graduate students with local schools and communities to enhance the built environment through innovative schoolyard design providing outdoor learning environments, public art and community engagement.

Values Statement:
Learning Landscapes is committed to the Colorado Center for Community Development's values in all the work we do:
Education – to provide opportunities for teaching and learning through Learning Landscapes courses UCD and community engagement.
Collaboration – by engaging in meaningful partnerships with students, staff, neighborhoods and organizations serving all Learning Landscapes sites.
Equity – to respect and celebrate the social and cultural character of each Learning Landscapes neighborhood.
Innovation – to challenge the boundaries of traditional thinking when it comes to landscape design, outdoor learning and community development.

LEARNING LANDSCAPE HISTORY

The fi rst Learning Landscape was built at Bromwell elementary school in 1998 as a result of a six-year collaboration of parents, elementary students, staff, faculty, neighbors, local businesses and University of Colorado Denver (UCD) landscape architecture graduate students. The vast expanse of asphalt and pea gravel on the Bromwell playground resembled a prison yard, not an environment encouraging activity and child development. Bromwell parents and community members took action to transform the schoolyard into an active and aesthetically pleasing place for learning and physical activity. Bromwell's schoolyard renovation project coincided with the end of mandatory busing at Denver Public Schools (DPS). Cessation of mandatory busing meant a renewed interest in Denver neighborhood schools and soon the Bromwell Learning Landscape project evolved into a citywide urban initiative evoking social change and physical transformation of public grounds.

UCD encourages faculty to connect the campus to the community. Landscape Architecture Professor, Lois Brink's Learning Landscapes course proved a tremendous opportunity for civic engagement. Through Learning Landscapes, UCD graduate students are able to stretch the boundaries of landscape design, engage the community and gain real-world design experience. In 1999 (UCD) College of Architecture and Planning entered into a formal agreement to plan, design, and help build Learning Landscapes at DPS elementary schools throughout the district. The partnership between UCD and DPS has resulted in the transformation of 81 neglected public elementary schoolyards into Learning Landscape Playgrounds.

In 2008 Denver voters expressed satisfaction with the program by passing a multi-million dollar bond initiative to fund the redevelopment of every DPS elementary schoolyard into a learning landscape by 2013.

WHAT WE DO

With a budget of approximately $450,000 per playground, Learning Landscapes leads UCD students, elementary schools and community members in the redesign of schoolyards into fun multi-use parks designed to refl ect the culture of the surrounding community. The Learning Landscapes project helps reconnect communities with neighborhood schools. The graduate students get meaningful, hands-on experience working with the community to create master plans and designs for a Learning Landscapes schoolyard.

2009-2010 Learning Landscapes

- **37** schoolyards
- **18,934** elementary students served
- **17** Volunteer builds
- **400** outdoor art banners
- **3900** outdoor art tiles
- **5000** volunteer hours
- **15** Green teams
- **2** Learning Landscapes studio courses
- **15** Design development documents

HOW WE DO IT

By listening and actively involving the school community throughout the planning, design, construction, and maintenance of the Learning Landscape schoolyard. Each school is asked to form a Learning Landscape team to help inform design and programming decisions as well as keep a watchful eye for vandalism and maintenance issues after construction is complete. The Learning Landscapes team recruits students, parents and surrounding community help to build, maintain and improve the Learning Landscape. Each new learning landscapes has a volunteer build day where the school and community volunteers develop a sense of ownership and civic pride by creating outdoor artwork planting gardens, laying sod or building play equipment.

We document and distribute site-specifi c resources for educators and community members on the outdoor educational elements unique to each Learning Landscape schoolyard. Promoting the programmatic use of the Learning Landscape is critical for the long-term viability and sustainability of these projects.



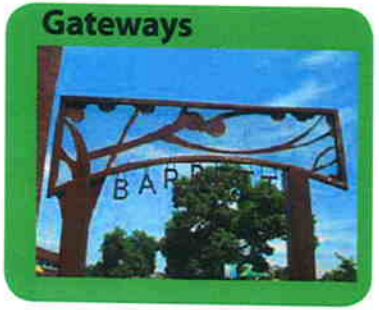


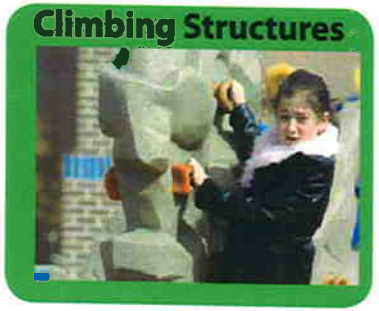

A **learning landscape** is a multi-use park for outdoor learning, discovery, creativity and play that celebrates the unique character of the **school and community**.

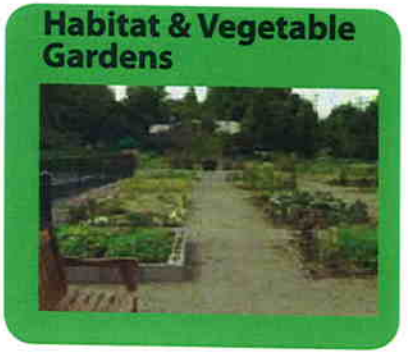
Learning Landscapes are comprised of grass playing fi elds, age- appropriate play equipment, trees, shade structures, gateways, artwork, gardens, traditional play elements and non-traditional play elements.

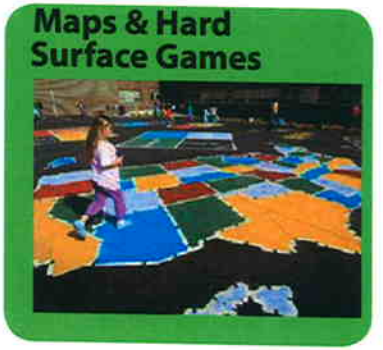
Learning Landscapes function as local public parks providing much needed green space and social gathering places while fostering neighborhood pride for local communities.

Educational Elements found on a Learning Landscape: History, Geography, Mathematics, Reading & Writing, Earth, Life, and Physical Science





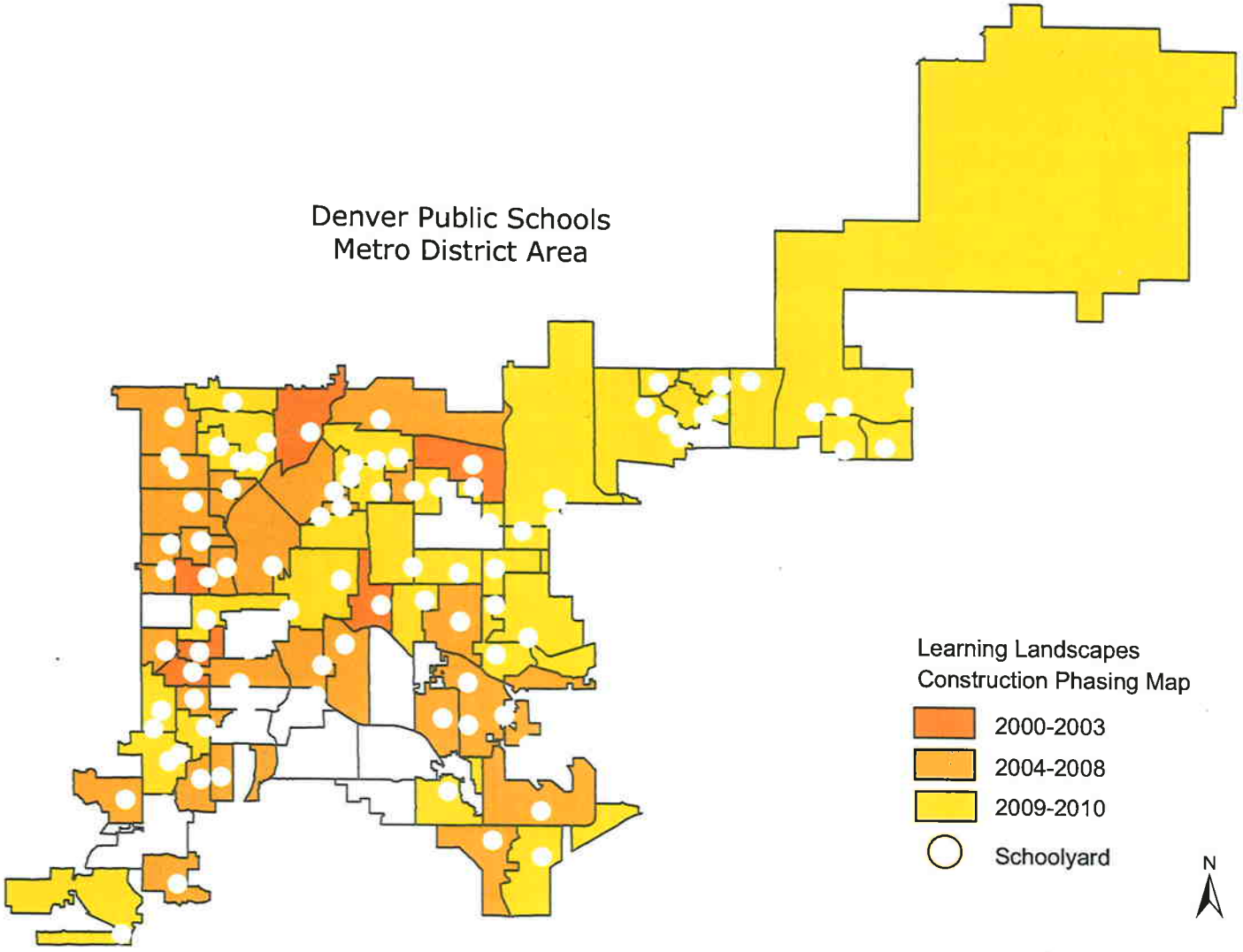









Denver Public Schools Learning Landscapes








PROJECT OUTCOMES

ACADEMIC

Connecting the UCD College of Architecture and Planning students to the Denver community through a civic engagement curriculum promoting innovative design for schoolyard redevelopment. With funding from the 2008 Denver Public Schools General Obligation Bond 56 schools will undergo a Learning Landscapes schoolyard transformation. The Learning Landscapes program connects UCD College of Architecture and Planning graduate students to DPS elementary schools and local design professionals providing hands-on, real-world design experience.

COMMUNITY ENGAGEMENT

Involving the community in the planning, design and construction process helps to build stewardship of the Learning Landscape. Each school is asked to form a Learning Landscape team to help inform design and programming decisions as well as keep a watchful eye for vandalism and maintenance issues after construction is complete. The Learning Landscapes team recruits students, parents and surrounding community help to build, maintain and improve the Learning Landscape. Typically the school and community volunteers help to create outdoor artwork, plant the gardens, lay sod, move engineered wood fi ber into play pits, and assemble playground equipment.

OUTDOOR ART

Every school is different and unique and outdoor art projects provide the school an opportunity to express the creativity, character, and culture of the school out on the playground. Banner and tile projects are a great way for each student to participate in the construction of the Learning Landscape, display the student artwork, and give the students a sense of pride and ownership in the playground.

SUSTAINABILITY

Building partnerships with organizations, documenting outdoor curriculum opportunities, and offering technical assistance for maintenance promotes learning landscape sustainability. To preserve the quality and character of the Learning Landscapes, the schoolyards must be respectfully used by the students and surrounding community. School and community vegetable gardens are examples of site-specifi c programming on Learning Landscapes that promote sustainability through community capacity building, healthy eating, and curriculum enhancement.






ACADEMIC

The Learning Landscape seminar course and design development practicum studio follow a civic-engagement focused academic curriculum.

The theory and planning seminar course pairs a graduate student with an elementary school to develop a schoolyard master plan. The master plan targets existing and proposed uses, programmatic requirements for uses, maintenance and safety issues. Each master plan includes a vision statement, a set of goals to implement the vision, a program of uses, a spatial relationship diagram, an aesthetic ordering system and preliminary cost estimates.

To develop the master plan, elementary school students create drawings of what they would like on to see on the new playground and parents and teachers discuss problems with the current playground. A photo survey solicits initial community/school preferences and encourages everyone to think of creative solutions. By asking constituent groups to select their fi ve preferred elements, UCD students are able to prioritize components for the master plan.

During the design development studio, graduate students synthesize the pieces of the master plan into a into a detailed site design. Students work side by side with landscape architects hired by Denver Public schools to see the projects through the construction process. Students visit existing Learning Landscape schoolyards as case studies, conduct site assessments, facilitate community meetings and develop a design refl ecting the vision, culture and curriculum of the school. The end products for the studio are typically models of site specifi c design elements and a set of design development drawings.

UCAN SERV Program

The community engagement focused curriculum provides an opportunity for the UCD students to participate in the AmeriCorps UCAN SERV program and earn tuition reimbursement. UCAN Serve is a campus-based program, engaging students and community members in meaningful service to address critical needs in local communities through higher education.

Learning Landscape Spring Studio 2009

Instructor: Lois Brink

Students:

Emily Greenwood
Samuels Elementary School

Trevor Hamrich
Palmer Elementary School

Kent Martin
Stedman Elementary School

Katie McCain
Bradley Elementary School

Nate Rooney
Amesse Elementary School

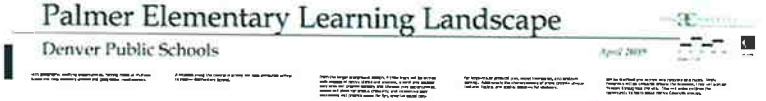
Jeff Webb
Palmer Elementary School

Landscape Architecture Firms:

Christopher Hoy Design Group
Design Concepts
GPD Land Design
Russell Mills

Examples of Student Work








Learning Landscape Fall Studio 2009

Instructor: Christopher Schooler, MLA

Students:

Denise Brady
Beach Court Elementary School

Christine Clark
Barnum Elementary School

Lisa Clement
Harrington Elementary School

Deborah Finch
Ashley Elementary School

Lindsey Gerlach
Force Elementary School

Kim Gortz-Reaves
Ford Elementary School

Alison Kelly
Dora Moore Elementary School

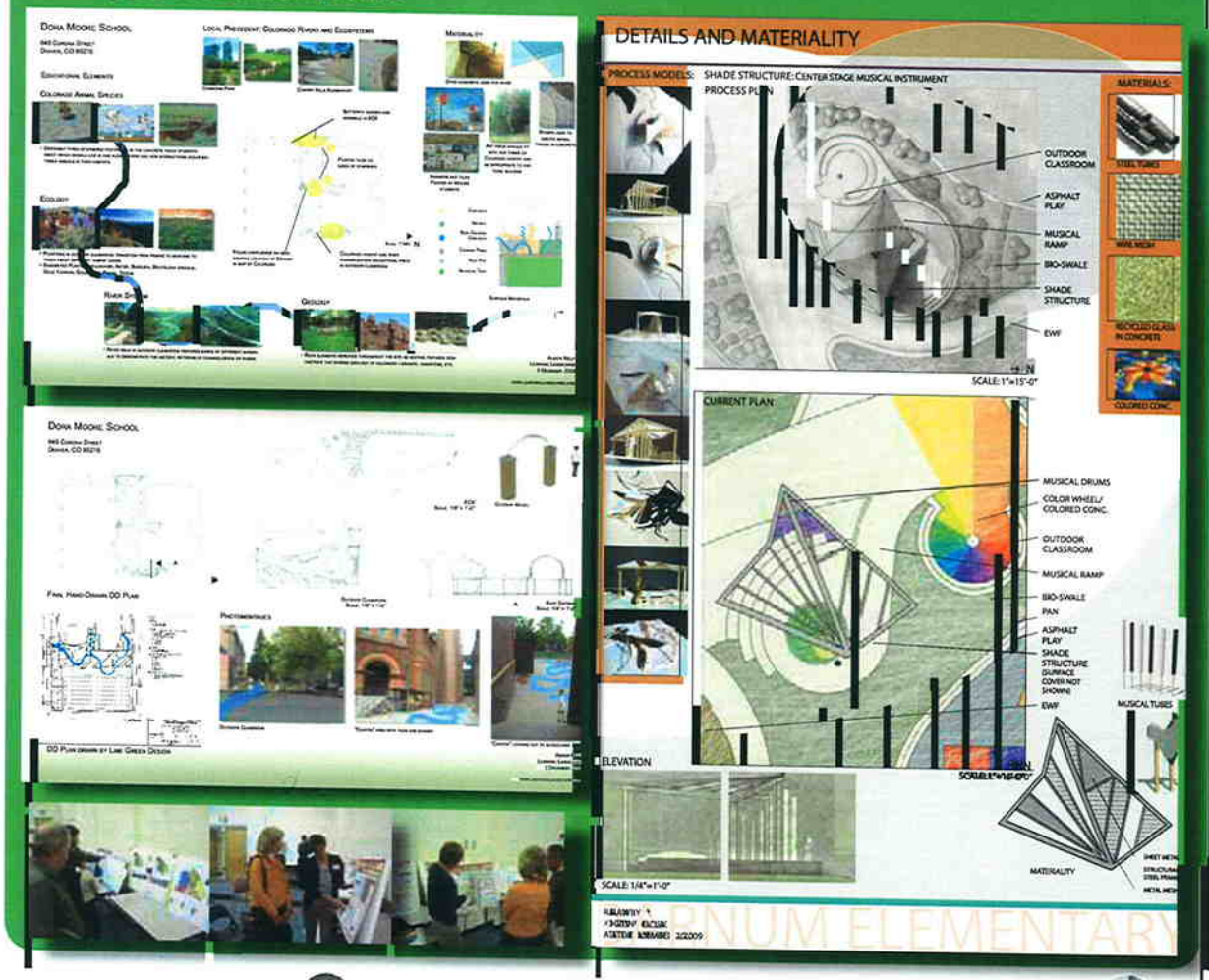
Katie McCain
Marrama Elementary School

Rebecca Silva
Teller Elementary School

Landscape Architecture Firms:

Christopher Hoy Design Group
Design Collaborative
Design Concepts
DHM Design
Lime Green Design
Russell Mills

Examples of Student Work








COMMUNITY ENGAGEMENT

Involving the community in the planning, design and construction process helps to build stewardship of the Learning Landscape. Schools are asked to form a Learning Landscape team to help inform design and programming decisions as well as keep a watchful eye for vandalism and maintenance issues after construction is complete. The Learning Landscapes team recruits students, parents and surrounding community to help build, maintain and improve the Learning Landscape. Typically the school and community volunteers help to create outdoor artwork, plant gardens, lay sod, and plant trees.

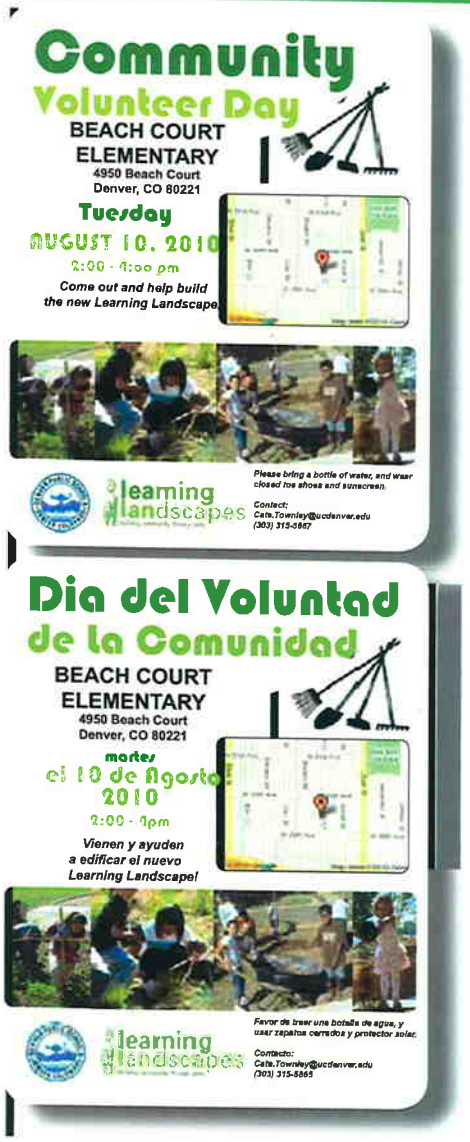
Learning Landscape staff help to organize and oversee the volunteer build events. The Volunteer and Maintenance Coordinator works with school Principals, DPS Project Managers, Contractors, DPS Facility Maintenance and local nurseries to set the date, recruit volunteers, gather tools and materials and host the volunteer build event. UCD research assistants get hands-on experience with plant identifi cation, planting plan implementation and community engagement. Learning Landscape staff guide the community volunteers with instruction on proper plant placement, planting techniques and maintenance. Volunteer build events are a fun way for students and community members get their hands dirty, dig in and help to build the Learning Landscape playground.

Lessons Leaned

- Volunteer build events can be small scale and still be effective.
- Coordinating the volunteer build date with school registration worked well.
- Having parents help recruit community volunteers was helpful.

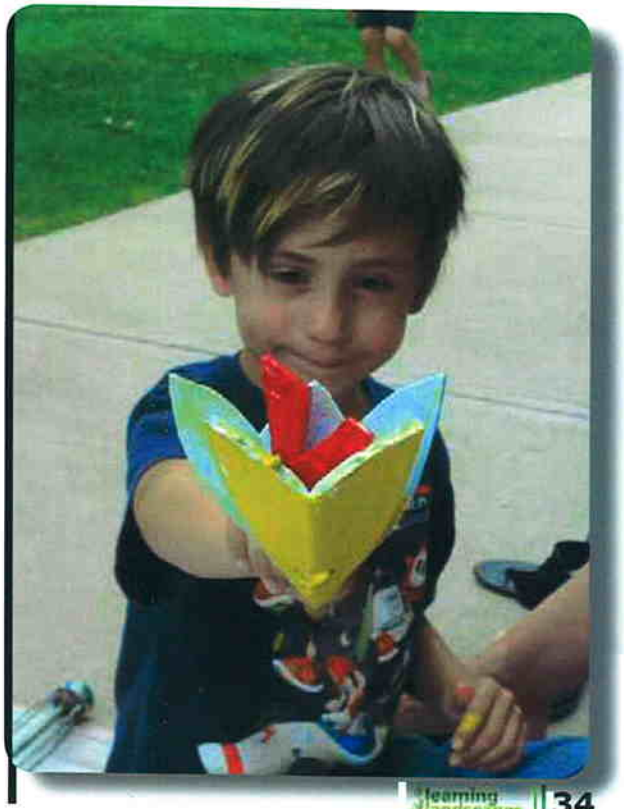
Goals for next year

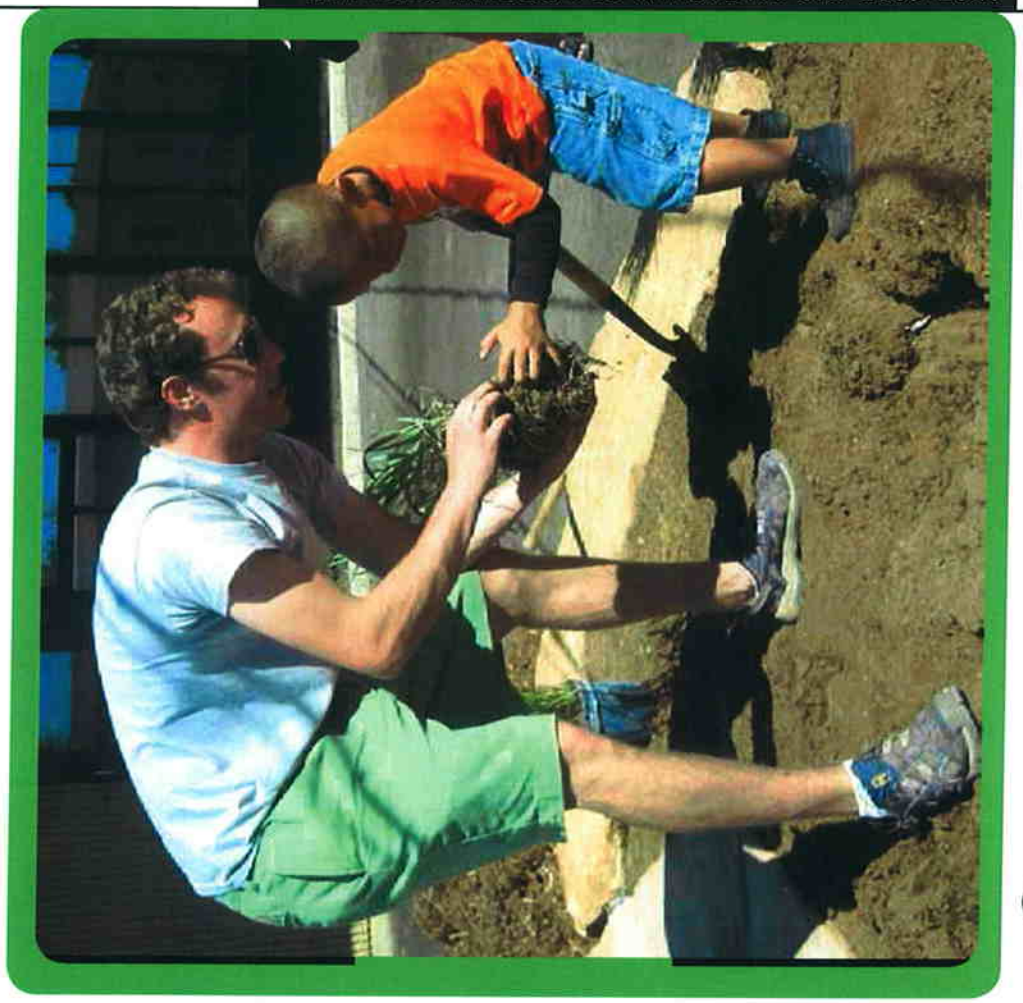
- Get 100% of Principals on-board and excited for volunteer build events earlier in the spring.
- Provide a variety of activities at each event.
- Encourage the school to plan additional volunteer events throughout the school year.



2009-2010 Learning Landscapes Community Engagement

- Organized **17 volunteer builds**
- Recruited over **5000 volunteer hours**
- Developed **15 Green teams**
- **Engaged thousands** of students, community members, and volunteers.






TEL






OUTDOOR ART

Outdoor art is a design element included in each Learning Landscape schoolyard. Every school is different and unique and outdoor art projects provide the school an opportunity to express the creativity, character and culture of the school out on the playground. Banner and tile projects are a great way to display the student artwork and give the students a sense of pride and ownership in the playground.

The Learning Landscape Art Coordinator works with each school to develop a theme for the outdoor art on the playground. Themes vary from Colorado culture, history and symbols; bugs, flowers, animals, poems, school mottos, international themes, children's books, and authors.

Students and teachers brainstorm ideas, sketches are made, and the creations begin. Some students paint individual tiles and some work on the banners. It is totally up to each individual school how they divide who works on each part of the project. It is important to remember, the more children who participate, the more rewarding the entire project will be.

Each banner pole holds two (44"x24") canvas banners painted with acrylic paint and sealed. A total of 4 images of students artwork are displayed on each banner pole. The Art Teacher or another supervising adult uses chalk to transfer the student's sketches onto each banner. Groups of 2-3 students work together to paint the banners with the paint provided. Once each side of the banner is painted, touched up, and dried, the banners are sealed with a clear coating to protect from weathering. Students use a ceramic glaze to paint 4", 8", or 12" outdoor rated porcelain tiles. The tiles are fired to 1500 degrees and then installed in a variety of places around the playground.

Learning Landscapes met with DPS Art Curriculum Coordinators and district art teachers in an effort to incorporate the Learning Landscape Outdoor art projects into the DPS curriculum standards. We found that the outdoor art component supports several K-5 Visual Arts Standards.

Lessons Learned

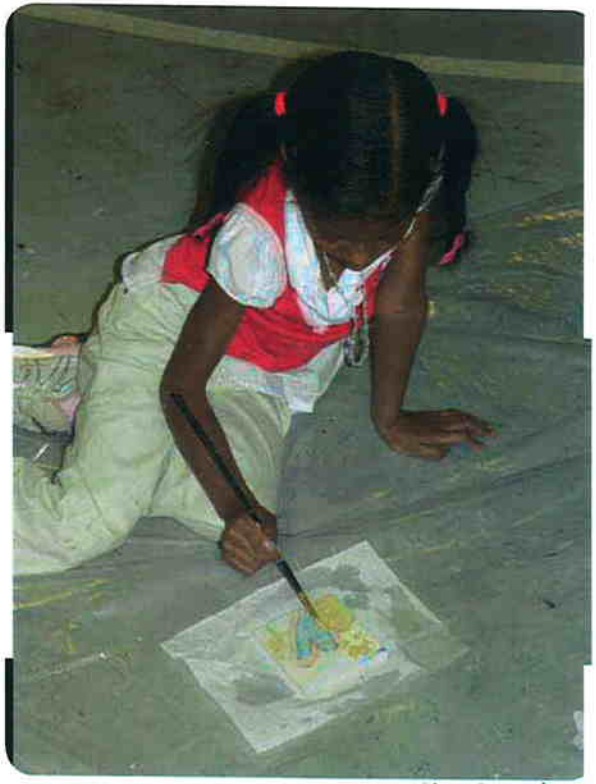
- Needs to be a school wide collaborative project not just best artists
- Need to have banners drawn and tile themes picked in advance
- Involve the schools in scheduling parent volunteers at school to help with art projects
- Although the projects support arts standards there is often not enough classtime to complete the projects

Goals for next year

- Acquire and deliver art materials earlier in the school year
- Involve the outdoor art coordinator in the initial project manager/UCD/ school meetings to get everyone on the same page.

2009-2010 Learning Landscapes Outdoor Art

- Painted over **400 banners**
- Painted over **3900 tiles**
- Over **3760 volunteer hours**







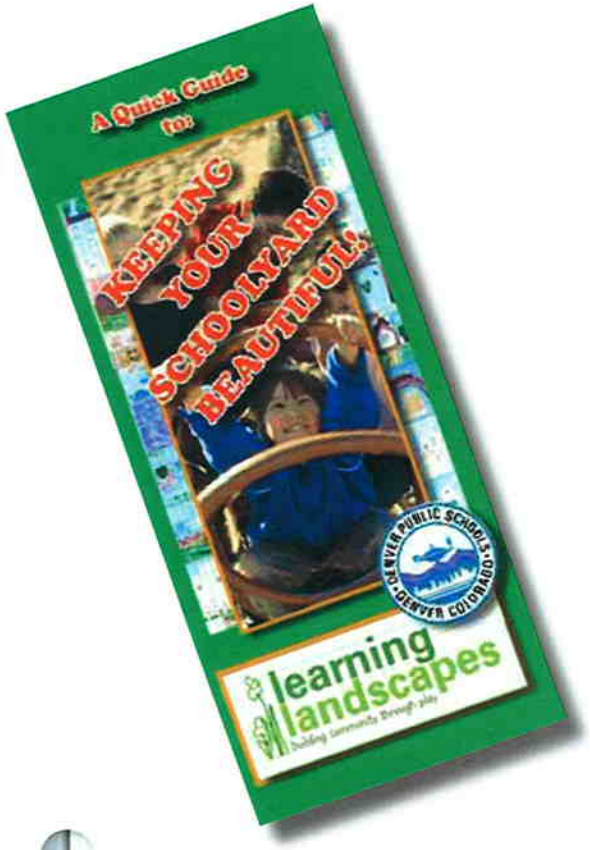

Barnum Elementary Shade Structure

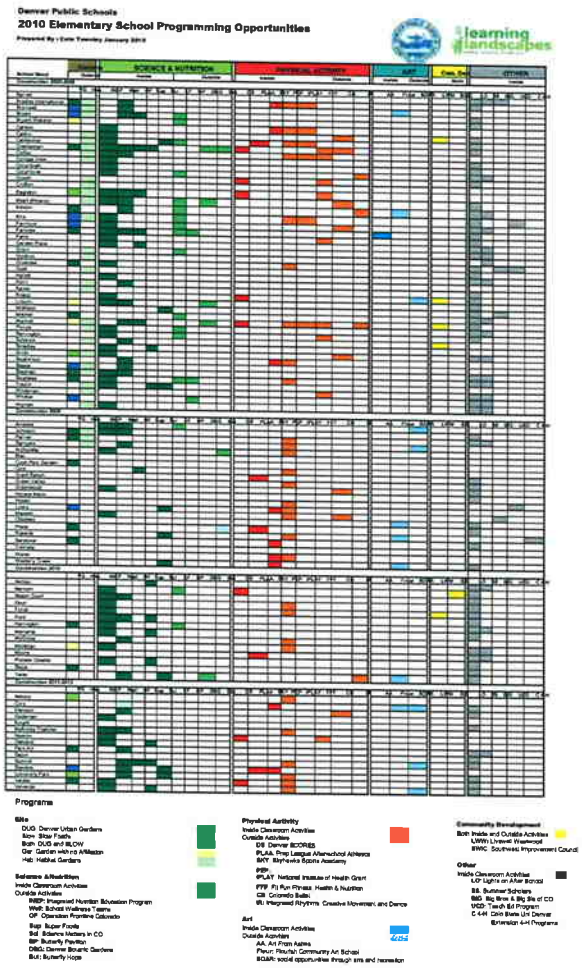





SUSTAINABILITY

Building partnerships with organizations, documenting outdoor curriculum opportunities, and offering technical assistance for maintenance promotes Learning Landscape sustainability. To preserve the quality and character of the Learning Landscapes the schoolyards must be respectfully used by the students and surrounding community. School and community vegetable gardens are an example of site-specifi c programming on Learning Landscapes that promote sustainability through community capacity building, healthy eating, and curriculum enhancement.





2009-2010 Learning Landscapes Sustainability

- Developed a maintenance guide for Learning Landscape schools.
- Formed coalition of **41** school gardens
- Developed pilot program for **2** urban farms on Learning Landscapes
- Developed a pilot program for **2** greenhouse learning labs.
- Planted over **400 trees**
- Developed site programming and curriculum opportunities resources for educators and community members.






Partners

Denver Public Schools
Denver Public Schools- Facilities Maintenance

Denver Offi ce of Economic Development
Denver Parks and Recreation
Denver Partners Against Graffi ti

Denver Urban Gardens
Slow Food Denver
Colorado Organic Producers Association
Operation Frontline
Denver Botanical Gardens

Mile High Million Tree Initiative
The Park People
Denver Digs Trees
Project Learning Tree
National Renewable Energy Lab NREL

AmeriCorps
- NCCC
- UCAN SERV
- Summer of Service

GreenWorks Denver
LiveWell Westwood
Kaiser Permanente
Southwest Denver Kiwanis Club
Mayfair Neighborhood Association
Montbello High School
University of Denver Asian Alliance

Research assistants

Emily Greenwood
Summer 2009

Jeff Webb
Summer 2009

Melina Fahari
Fall 2009

Nick Perschitte
Fall 2009, Spring 2010

Matt Rennert
Fall 2009, Spring 2010

Scott Muir
Summer 2010

Sarah Sibley
Summer 2010

Garrick Swanson
Summer 2010

Kim Gortz-Reaves
Volunteer

Trevor Hamrich
Volunteer

Kent Martin
Volunteer

Bailey Ferguson
Volunteer






LEARNING LANDSCAPES STAFF

Professor Lois A. Brink
Executive Director

Professor Brink is a tenured faculty member of the University of Colorado's College of Architecture and Planning in the Department of Landscape Architecture and became director of CCCD in August of 2009. She received her MLA from the University of Pennsylvania in 1978. Prior to joining UCD, Professor Brink spent ten years in private practice in Philadelphia and Denver.

Learning Landscapes have been her primary research during the past ten years. This current research is threefold: 1) design and construct environments that contain a range of opportunities or affordances for healthy living; 2) empower children and communities through programs for after-school activities, community organizing, healthy eating and active living; and; 3) evaluate and research in a comprehensive manner.

Cate Townley
Volunteer & Maintenance Coordinator

In 2008 Cate Townley received a dual Masters degree in Urban Planning and Urban Design from the University of Colorado Denver. While in graduate school Cate became involved with Learning Landscapes. Her interest in the program began with a seminar class focused on developing a Learning Landscape master plan for a school that was devastated by hurricane Katrina in the lower ninth ward of New Orleans.

Cate became an intern for the Learning Landscapes doing a variety of tasks such as leading volunteer teams and website development.

In spring 2009 Cate became the Learning Landscapes Volunteer and Maintenance Coordinator. Cate organizes and oversees the community volunteer builds for each new Learning Landscape schoolyard. Cate actively recruits parents and community members to take an active role in keeping their Learning Landscape a beautiful focal point of the school and surrounding neighborhood.

Chris P. Schooler MLA
Senior Research Assistant/Studio Instructor

Christoper P. Schooler received a Masters degree in Landscape Architecture from University of Colorado at Denver in 2001, Mr. Schooler has worked on a variety of projects in both the public and private sectors in areas of planning, architecture, landscape architecture and urban design.

Chris has a long-standing relationship with the Learning Landscapes projects wherein he has been a part of the design process for upwards of 30 Learning Landscape projects in a variety of roles as planner, designer, and facilitator. Currently, Chris is an adjunct professor for the School of Architecture and Planning where he guides the yearly Vertical Landscape Architecture Studio: Learning Landscapes Design.

Most recently Chris has been focusing on academia and operates as a part time Research Associate with the Colorado Center for Community Development.






LEARNING LANDSCAPES STAFF

Suzanne Coxhead
Outdoor Art Coordinator

Suzanne Coxhead is the Outdoor Art Coordinator for Learning Landscapes. She is an active participant throughout all levels of construction meetings during the Learning Landscape process. Skillfully coordinating, ordering and delivering supplies for both the banner and tile projects to each of the schools under construction. In addition to coordinating and following up with each school project, Suzanne makes it a priority to work with students, parents and volunteers.

At the end of the projects, materials are coordinated for pick up, fi ring, and delivery to the respective schools. Suzanne's coordination efforts are rewarded at the completion of the construction process with the sealing and hanging of student crafted banners at each of the learning landscape school yards.

Darin Delay
DPS Learning Landscapes Project Manager

Darin Delay is a Landscape Architect and serves as the Project manager for all new Learning Landscapes built as part of the 2008 General Obligation Bond.

Darin works closely with UCD students and landscape architects during the design phase and works with contractors during the construction of all Learning Landscape projects.

Troy Garner
DPS Learning Landscapes Project Manager

Troy "Mr. T" Garner has been involved with the Learning Landscapes program since 2000. Among his many duties as the Community Relations Manager for Denver Public Schools, Troy serves as a liaison between DPS and UCD for the Learning Landscapes program, provides design review feedback on planned Learning Landscapes projects and oversees the Learning Landscapes maintenance budget. While his role in the Learning Landscapes program has changed over the years from grant coordinator to Project Coordinator to Project Manager, his passion for the kids and the program remains high. He is the biggest cheerleader for Denver's kids, and his commitment to Denver's youth is refl ected in every decision he makes for Denver Public Schools.

ANNUAL REPORT 2009-2010

Helping Hands

Your Community Can Help!

Form Your Own Schoolyard/ Learning Landscape Committee

Denver Public Schools supports partnerships to increase neighborhood stewardship and civic engagement. From the design to completion of the school grounds, the neighborhood's participation is encouraged. DPS encourages each school to form a committee comprised of parents, teachers, staff, students, community members and local businesses. The role of a schoolyard/ Learning Landscape Committee as part of the DPS Technical Assistance Program is:

- Organize schoolyard clean-ups, fluffing, mulching, habitat and vegetable garden planting and improvement events
- Maintain art elements: banner painting, murals, tiles
- Assist with reporting: vandalism, safety and maintenance issues

Christopher Alexis, "I like it!"

Photograph by CJ Stays

Supporting Each Other

Operations and Maintenance Role:

Grounds, Plumbing, and Protective Coatings: Provide major repairs and maintenance.

- Mow, aerate, reseed, and control weeds for large grass fields
- Apply weed control in landscaped areas
- Respond to work requests for:
  - Broken play equipment and site furniture
  - Asphalt repair
  - Tree pruning (above 8')
  - Removal/ replacement of dead trees
  - Vandalism
  - Graffiti on building
  - Re-striping asphalt with games: tether ball etc...
  - Major irrigation repairs

Technical Assistance Program

A partnership with the University of Colorado Denver provides support for:

- Developing school-based Learning Landscape committees
- Providing volunteer support to school personnel for schoolyard projects
- Organizing schoolyard improvement projects
- Advocating for improvements at each Learning Landscape

Sharing Maintenance Duties

Your School's Role:

Principal: Oversees the school site.
Facility Manager: Primary provider for routine maintenance, work requests and reporting.

- Report vandalism within 24 hours
- Maintain a safe level of EWF in play pits
- Monitor irrigation and make minor repairs
- Remove graffiti on play equipment
- Communicate requests for help with schoolyard clean-up, mulching, pruning, etc... to principal and school committee
- Inspect play equipment for damages
- Prune and thin vegetation below 8'
- Empty trash cans
- Mow small grass areas
- Edge grass along fence and planting areas
- Remove snow and apply sand on walkways
- Submit work requests for:
  - Broken play equipment and site furniture
  - Materials (EWF, mulch) when needed
  - Dead plants and trees
  - Major pruning
  - Major irrigation repairs

Photograph by Denver Public Schools

REPORT VANDALISM!

It is important that employees, parents and students report to the school principal every incident of vandalism known to him/her and, if known, the names of those responsible.
(DPS Board of Education Policy ECAC - Vandalism)

Examples of vandalism on a Learning Landscape:

- Stolen sprinkler head(s), sod, trees/ shrubs
- Torn-up drip irrigation lines
- Rubber surfacing destroyed
- Pushed-over play equipment and site furniture
- Bent banner pole arms
- Deliberate damage to trees, plants and shrubs
- Deliberate damage to artwork and raised planting beds
- Arson

To Report Vandalism You Must:

Complete a Work Order Request

"Calling-In" a vandalism issue to the Maintenance Dept. IS NOT reporting!

1. Use Priority Code: Urgent
2. Use Action Code: Vandalism
3. Write a detailed description using key words:
   - Vandalism
   - Safety
   - Urgent
   - Deliberate damage
   - Anonymous perpetrator
4. Record work order number and date for records.
5. Call the Service Coordination Center for assistance in work request coding.
6. Contact your school's **Area Supervisor** if the vandalism issue is not mitigated.

Please keep our schoolyards beautiful, report vandalism within 24 hrs!

Did You Know?

All the information about your school's Learning Landscape is available at:

www.learninglandscapes.org

Questions? Contact Us:

Troy "Mr. T " Garner
DPS Customer Relations and Special Programs Manager
(720)-423-4181
Email: Troy_Garner@dpsk12.org

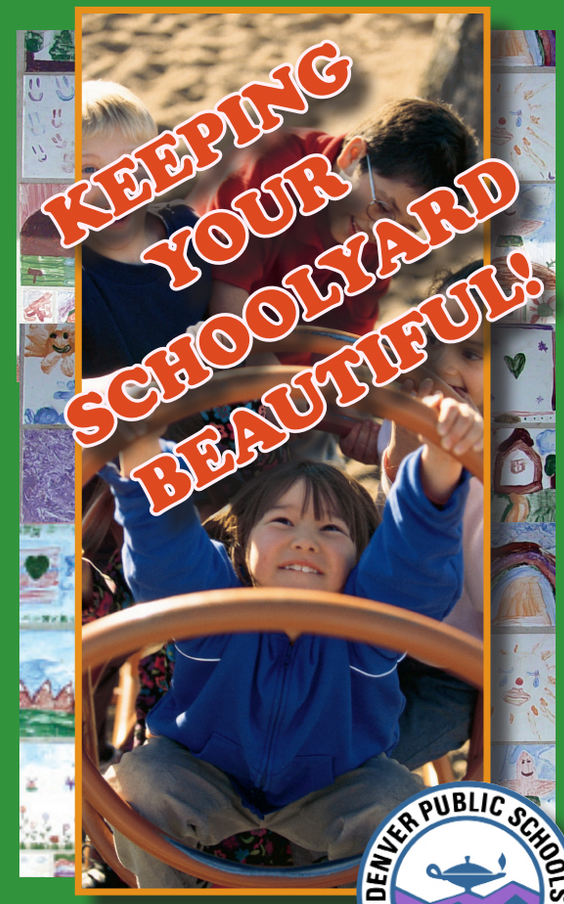
J.C. Robb
DPS Maintenance Supervisor
(720) 423-4217
E-mail: John_Robb@dpsk12.org

Cate Townley
Volunteer and Maintenance Coordinator
303-556-2608
E-mail: Cate.Townley@ucdenver.edu

Suzanne Coxhead
Outdoor Art Coordinator
Phone: 303-556-2608
E-mail: sgc3933@aol.com

A partnership between Denver Public Schools and University of Colorado Denver College of Architecture and Planning

A Quick Guide to:



learning landscapes
building community through play

Helping Hands

Your Community Can Help!

Form Your Own Schoolyard/ Learning Landscape Committee

Denver Public Schools supports partnerships to increase neighborhood stewardship and civic engagement. From the design to completion of the school grounds, the neighborhood's participation is encouraged. DPS encourages each school to form a committee comprised of parents, teachers, staff, students, community members and local businesses. The role of a schoolyard/ Learning Landscape Committee as part of the DPS Technical Assistance Program is:

- Organize schoolyard clean-ups, fluffing, mulching, habitat and vegetable garden planting and improvement events
- Maintain art elements: banner painting, murals, tiles
- Assist with reporting: vandalism, safety and maintenance issues

Christopher Alexis, "I like it!"

Photograph by CJ Stays

Supporting Each Other

Operations and Maintenance Role:

Grounds, Plumbing, and Protective Coatings: Provide major repairs and maintenance.

- Mow, aerate, reseed, and control weeds for large grass fields
- Apply weed control in landscaped areas
- Respond to work requests for:
  - Broken play equipment and site furniture
  - Asphalt repair
  - Tree pruning (above 8')
  - Removal/ replacement of dead trees
  - Vandalism
  - Graffiti on building
  - Re-striping asphalt with games: tether ball etc...
  - Major irrigation repairs

Technical Assistance Program

A partnership with the University of Colorado Denver provides support for:

- Developing school-based Learning Landscape committees
- Providing volunteer support to school personnel for schoolyard projects
- Organizing schoolyard improvement projects
- Advocating for improvements at each Learning Landscape

Sharing Maintenance Duties

Your School's Role:

Principal: Oversees the school site.
Facility Manager: Primary provider for routine maintenance, work requests and reporting.

- Report vandalism within 24 hours
- Maintain a safe level of EWF in play pits
- Monitor irrigation and make minor repairs
- Remove graffiti on play equipment
- Communicate requests for help with schoolyard clean-up, mulching, pruning, etc... to principal and school committee
- Inspect play equipment for damages
- Prune and thin vegetation below 8'
- Empty trash cans
- Mow small grass areas
- Edge grass along fence and planting areas
- Remove snow and apply sand on walkways
- Submit work requests for:
  - Broken play equipment and site furniture
  - Materials (EWF, mulch) when needed
  - Dead plants and trees
  - Major pruning
  - Major irrigation repairs

Photograph by Denver Public Schools

Enhancing education and community outreach through public school grounds

A Learning Landscape Is:

- an educational setting
- a healthy environment
- a community space

Potential Benefits of Learning Landscapes:

- For the community
  Public focal point to be proud of and to enjoy
- For the parents
  Safe recreational environment for students and families
- For the students
  Increased levels of activity and creativity
- For the teachers
  Outdoor learning and exhausted, happy children

Christopher Alexis, "I like it!"
Photograph by CJ Stays

Funding and Research Partnerships

Colorado Center for Community Development
Colorado Department of Public Health and Environments: Physical Activity and Nutrition Coalition (COPAN)
Children, Youth and Environments Center
Denver Housing and Neighborhood Development
Denver Parks and Recreation
Denver Public Schools
Gates Family Foundation
Mayor's Office for Education and Children
Robert Wood Johnson Foundation
University of Colorado at Denver & Health Sciences Center

Want to learn more, get involved, volunteer or donate?

Check us out on the Web:
http://thunder1.cudenver.edu/cye/LLA/home.html

or view an informational video:
www.colorado.edu/journals/cye/CYE_Videos.html

Contact:
Learning Landscape Initiative
University of Colorado at Denver and Health Sciences Center
College of Architecture and Planning
Attn: Lois A. Brink
PO Box 173364, Campus Box 126
Denver, Colorado 80217

Phone: 303-556-5909 • *Fax:* 303-556-6651
E-mail: lois.brink@cudenver.edu

Building schools and communities through play ...

Photograph by Richard Shock/Shock Photography

Denver Learning Landscape Initiative

University of Colorado at Denver & Health Sciences Center, Denver Public Schools and the City & County of Denver

How We Got Here

Since 1998, through a successful collaboration between multiple stakeholders, the Learning Landscape Initiative has transformed 56 neglected Denver public elementary school playgrounds into attractive and safe multi-use parks tailored to the needs and desires of the local community. The success of the Learning Landscape project is founded on a healthy enthusiasm for aesthetic issues with a pragmatic approach to maintenance, safety and recreational issues.

All Learning Landscapes are comprised of grass playing fields, age-appropriate play equipment, trees, shade structures, gateways, artwork, gardens, traditional play elements and non-traditional play elements. Learning Landscapes function as local public parks providing much needed green space and social gathering places while fostering neighborhood pride for local communities.

Where We Go

With the achievement of 56 built school yards to date, the Learning Landscape Initiative is in the process of evaluating the playgrounds. Using multiple methods to appraise the Learning Landscapes, the organization hopes to determine: what features greatly influence children's physical and creative activities, how guiding principles and educational programs increase opportunities for the students, and the how neighborhoods influence children's educational and physical opportunities.

"By bringing together diverse groups, a civic process—not a design project—is created."

—Lois A. Brink, MLA, associate professor

Community Outreach

A major component of the Initiative is providing technical assistance for Denver's Learning Landscapes. This program focuses on strengthening community relationships, enhancing civic engagement, and cultivating school and community leadership. From the design to completion of the school grounds, the neighborhood's participation is encouraged.

Photographs by Bambi Yost

Program Partners

AmeriCorps NCCC
AmeriCorps UCAN Serve
Butterfly Hope
Denver Scores
Denver Urban Gardens
Front Range Earth Force
Grounds for Learning
Hands On Denver
Hope Communities
Interpret This
Junior League of Denver
Slow Food
Mayor's Office for Education and Children
Mile High United Way
Mile High Youth Corps
Metro Volunteers
National Wildlife Federation
Northwest Artist Coalition
Win-Win Community Leadership Project
Young Nonprofit Professionals Network
Youth Employment Academy

Accomplishments of the Learning Landscape Initiative*

- 56 built Learning Landscapes
- $25 million raised to date
- 8,000 community volunteers
- 18,000 students served
- 250,000 city residents served
- 200 AmeriCorps volunteers
- 20 volunteer organizations

* As of November 2006

Photograph by Denver Public Schools

"Once the playground was open, there was a sense of calmness in the children when they entered the building that didn't exist before."

—Principal, CRS Report 2003

"Building the new playground has brought our community together"

—Community Member, CRS Report 2003

"I can speak for my PE classes that students are more attentive. I believe that's the case for the other teachers."

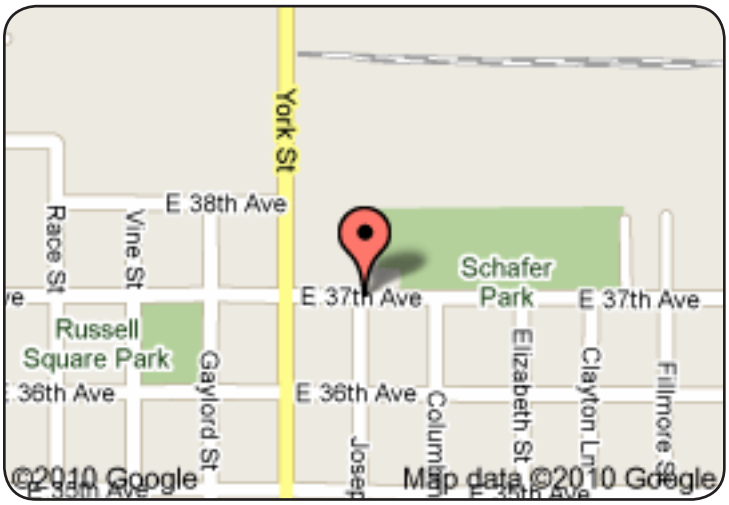
—Teacher, CRS Report 2003

Dia del Voluntad

de la Comunidad

HARRINGTON ELEMENTARY

2401 E. 37TH Ave.
Denver, CO 80205



viernes
el 6 de Agosto 2010
9:00 a.m.

Vienen y ayuden a edificar el nuevo Learning Landscape!

DENVER PUBLIC SCHOOLS · DENVER COLORADO

learning landscapes
building community through play

Favor de traer una botella de agua, y usar zapatos cerrados y protector solar.

Contacto:
Cate.Townley@ucdenver.edu
(303) 315-5865

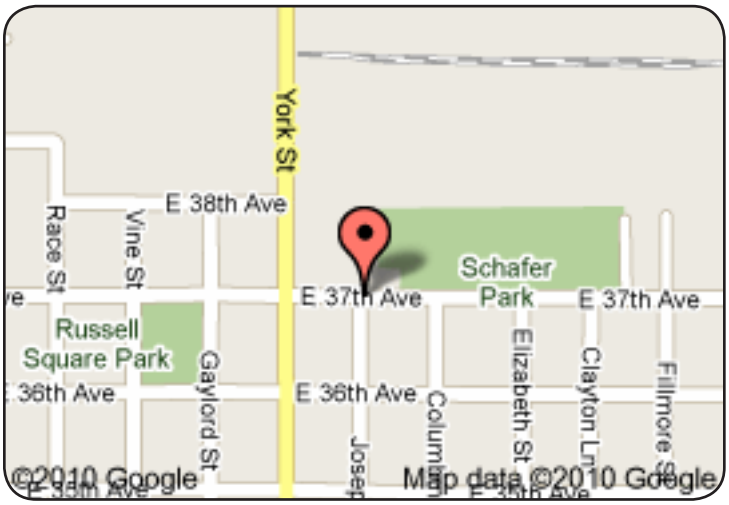
Community Volunteer Day

HARRINGTON ELEMENTARY

2401 E. 37TH Ave.
Denver, CO 80205

Thursday
AUGUST 5, 2010
9:00 a.m.

Come out and help build the new Learning Landscape!



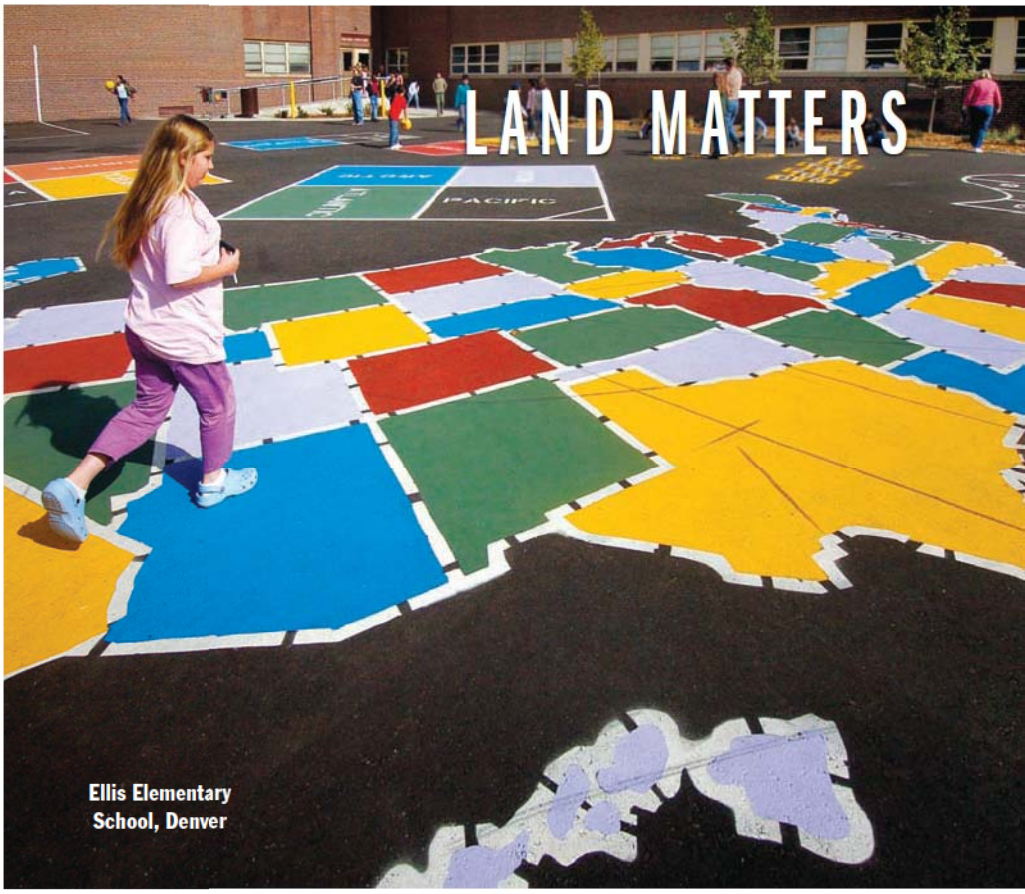
DENVER PUBLIC SCHOOLS · DENVER COLORADO

learning landscapes
building community through play

Please bring a bottle of water, and wear closed toe shoes and sunscreen.

Contact:
Cate.Townley@ucdenver.edu
(303) 315-5867

LAND MATTERS



Ellis Elementary School, Denver

COURTESY DESIGN CONCEPTS LANDSCAPE ARCHITECTURE

WHAT DOES THIS transformed schoolyard have to do with making landscape architecture a more visible, more influential profession?

By itself, probably not much. But suppose this schoolyard was part of a school-system-wide program for transforming most or all of the schoolyards in a large American city, and a landscape architect was the instigator of it all? Would that not give landscape architecture a more powerful role in community affairs and people's daily lives?

That's just what happened in Denver. There Lois Brink, Affiliate ASLA, a professor of landscape architecture, created a public–private partnership with the potential to transform all the elementary school playgrounds in the city. It began as a grassroots effort to turn the asphalt wasteland of the school Brink's children attended into a vibrant area with a garden and more kid-friendly play and learning opportunities. In her studio class at the University of Colorado Denver, Brink challenged her students to engage the community in rethinking the space. When she had a plan in hand, she and other parents began raising funds to actually implement it—but after six years, they were still coming up short.

So Brink took a bold step: She ventured out of the safe confines of the university and approached the chief operating officer of the Denver Public Schools. He not only liked the plan but thought the idea was transferable to other schools. He and Brink went to the city and the Gates Foundation for funding, then formed a public–private partnership, the Learning Landscape Alliance—headed by Brink—that coordinated planning, funding, and construction. Local landscape architects were hired to draw up construction documents. The idea caught on with the public, and taxpayers passed a bond to transform more and more schools. As of this spring, 50 schoolyards had been completed, and a bond that would fund improvements for the rest of the district's elementary schools will be put to a vote this fall. (For more information, see "Too Cool (Just) for School," page 40.)

Consider the Learning Landscape Alliance as a prototype. If other landscape architects took the initiative to rebuild schoolyards—or any other public landscape type for that matter—in their home cities, what would that do for the profession? One caveat: It might require landscape architects to venture into the scary arena of politics. Are landscape architects, including academics, ready for that?

More broadly, is this the kind of contribution this profession adequately celebrates or values? Currently, landscape architects reserve their highest reverence for one-of-a-kind built landscapes. There may be good reasons for this: The best of such built landscapes are invariably beautiful. Sometimes they are even embraced by the public. Taken together, these one-off projects seem to constitute the image that the profession wants to present to the world.

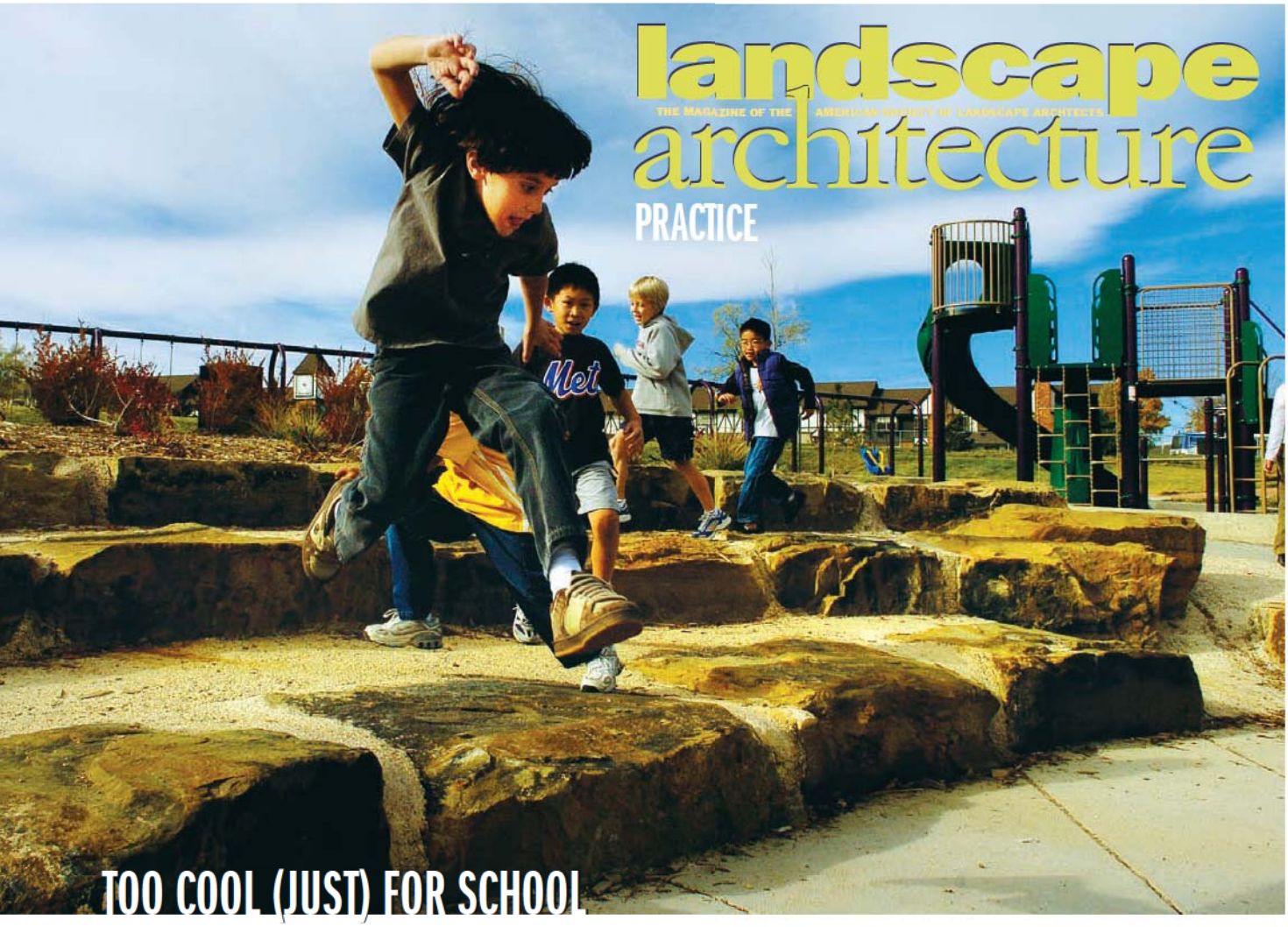
But equally compelling, if less imageable, are landscape *systems* that alter, in a much more sweeping way, the places we and our families live in every day. Yet too often, these large-scale initiatives remain unheralded. Denver is a good example. Until our writer visited some of the schoolyards with Brink and began researching the initiative, I had no idea of its magnitude. How can some of the profession's most notable achievements be communicated to the public if they remain well-kept secrets? What other grand civic initiatives, with landscape architects as major players, are out there waiting to be discovered?

Bill Thompson

J. William "Bill" Thompson, FASLA
Editor / *bthompson@asla.org*

landscape architecture
THE MAGAZINE OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS

PRACTICE



TOO COOL (JUST) FOR SCHOOL

In Denver, a university-sponsored initiative is renovating schoolyards and opening them to the community as parks.

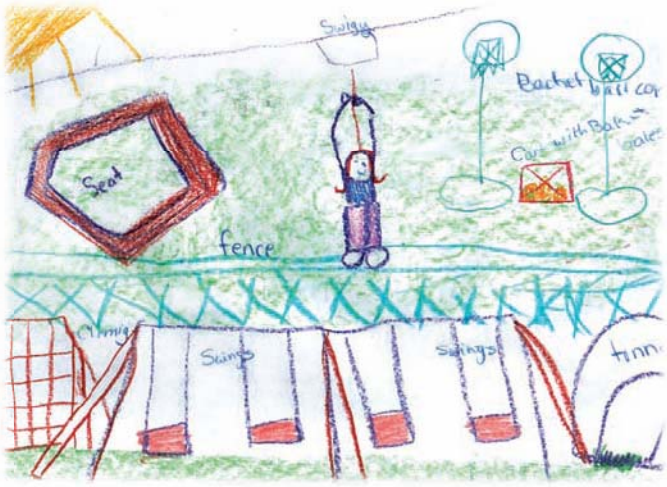
By Daniel Jost, Associate ASLA

DURING THE LATE 1990s, a majority of the public schoolyards in Denver lacked adequate play areas. Most of the schoolyards had vast stretches of asphalt and pea gravel and little shade.

"Our old playground was so bad. It was a gravel pit!" exclaims Thomas Barela, a gym teacher at Colfax Elementary. "During the hot months, with the hot gravel, it was tough. The kids didn't want to get out there and exercise a lot." And when the kids did play, they were often injured. "I used to have lots of injuries from the gravel," says Barela. "Gravel in knees and cut elbows."

There were other problems as well. Many of the playgrounds had equipment that was not age appropriate. Some were so small that they could only safely serve a few classes at a time, and few met Americans with Disabilities Act (ADA) requirements.

To deal with these challenges, Denver has launched a program that is not only improving schoolyards but building a sense of community in neighborhoods throughout the city. At an average cost of $450,000 per site, the Learning Landscapes Initiative is converting once-desolate public schoolyards into mini parks that welcome the community after hours and facilitate both learning and play. Young students aren't the only ones



Kids jump down the boulder stairs at Southmoor Elementary School's new playground, *top*. Children are often involved in the planning stages, making drawings of how they'd like their schoolyard to look, *right*.

COURTESY DESIGN CONCEPTS LANDSCAPE ARCHITECTURE. TOP: COURTESY LEARNING LANDSCAPES. BOTTOM

learning from these landscapes—landscape architecture graduate students at the University of Colorado Denver (UC Denver) and a number of professional landscape architects have also learned valuable lessons through their participation in the program.

The plantings at Ellis Elementary are raised, *above,* to provide seating and discourage foot traffic. Lois Brink, Affiliate ASLA (center, *below),* a landscape architecture professor at UC Denver, helped spawn Learning Landscapes, which is improving schoolyards throughout Denver.

A Quick History

The Learning Landscapes Initiative is directed by Lois A. Brink, Affiliate ASLA, a landscape architecture professor at UC Denver. The project began in 1992 as a grassroots effort to improve Bromwell Elementary, the school that Brink's children attended. In her studio class, Brink challenged her graduate students to engage the community in rethinking the space.

"It probably took a community and a school like ours to get it done the first time," says Frank Bingham, who was Bromwell's principal at the time the landscape was constructed. "The district tended to have a bit more deference to us than they might to some schools because of the very strong parental support and the link to the business community that some other schools don't have." Bromwell is in Denver's posh Cherry Creek North Business District, and there was a long-standing relationship between the school and art gallery owners nearby.

Even so, it took six years before ground was broken at Bromwell. By 1998, a group of parents, including Brink, had raised $250,000 to improve Bromwell's schoolyard. However, that was not enough to complete the project. In an attempt to secure additional funds, Brink approached Craig Cook, who was the chief operating officer of the Denver Public Schools at the time. According to Brink, Cook loved the idea. "We need to do this in other places," he told her.

Around that time, UC Denver was encouraging its faculty to be more actively involved in the surrounding community,

COURTESY DESIGN CONCEPTS LANDSCAPE ARCHITECTURE. TOP: HELEN RICHARDSON/THE DENVER POST. BOTTOM

particularly disadvantaged urban areas. Brink saw an opportunity to fulfill this mission. Garden Place Academy, an underperforming school in Denver's industrial crescent, was chosen to be the next project. Meanwhile Brink and Cook approached representatives from the city of Denver and the Gates Family Foundation for funding.

The pace picked up after that. In the spring of 2000, the Learning Landscape Alliance was established with the help of a federal community block grant supplied through the city of Denver's Department of Housing and Neighborhood Development Services. An entrepreneurial public–private partnership, the Learning Landscape Alliance would be responsible for coordinating the planning, funding, and construction necessary to improve 23 schoolyards in the next three years. Funding for the program would come from a variety of sources including the city, foundations, the school district, the community, and others, with no one group contributing more than 25 percent. The alliance was run by a six-member steering committee with Brink at the helm. The committee included officials from the Denver Public Schools, the head of Denver's Department of Housing and Neighborhood Development, and the executive director of the Gates Family Foundation.

While some of the work would be done in a traditional way, with landscape architects providing the final construction documents and contractors doing much of the construction, landscape architecture students and the community at large would be engaged in many different phases of the projects.

The first schools renovated were locat-

Each school has a unique gateway meant to welcome the community. Seventy percent of the sites, including many in low-income neighborhoods, have no gate that can be closed or locked, as with the gateway at Bromwell Elementary, *above*. However, some schools have gates that can keep balls in and strangers out during school hours, *below*.

ed in poor neighborhoods in Denver's industrial crescent. Denver's mayor, Wellington Webb, and his administration had identified 16 underserved neighborhoods for capital improvements, and elementary schools in each of these neighborhoods were chosen to receive new "learning landscapes."

A second round of schools was renovated using funding from a general obligation bond passed by local taxpayers in 2003. The program has now grown to encompass around 60 percent of the elementary schools in the Denver Public Schools. As of spring 2008, construction on 50 schoolyards had been completed, and a bond that would fund improvements for the rest of the district's elementary schools will be put to a vote this fall.

The schoolyard at Eagleton Elementary is no longer a barren, asphalt pad, *left;* it has new play equipment and a vegetable garden, *above.* Children can learn about gardening, *below,* at many of the learning landscapes.

While the Learning Landscape Alliance dissolved after the first 23 schools were built, the partnership between the Denver Public Schools and UC Denver lives on. It is now simply known as Learning Landscapes.

Learning Landscapes continues to be involved with the planning and design of schoolyards in Denver, and its involvement does not end once the projects are built. Learning Landscapes has obtained funding for a Technical Assistance Program. The assistant director, Rachel Cleaves, helps communities find partners that assist in programming, maintaining, and improving the spaces. According to its web site, Learning Landscapes is currently working with 21 different public and private partners. Among them are Denver Scores, an afterschool program where kids can play soccer or participate in creative writing; Denver Urban Gardens, a gardening group that maintains the children's vegetable gardens at some schools over the summer in exchange for gardening space of their own; and Slow Food Denver, a group that works with vegetable gardens and teaches children and parents about cooking and healthy eating. AmeriCorps and other volunteer groups are brought in for workdays on existing landscapes.

A Community-Based Vision

Among the factors that led to the initiative's creation was a 1995 court decision that eliminated forced busing in Denver. For 20 years, students had been bused outside their neighborhoods as part of a federally mandated desegregation program. While the program's effectiveness at improving race relations can be debated, it undoubtedly weakened the connection between the city's neighborhoods and the public schools located within them. During this period, most elementary schools in Denver locked up their schoolyards after hours.

When busing was stopped, students

RACHEL CLEAVES, TOP AND BOTTOM; COURTESY LEARNING LANDSCAPES, MIDDLE

began attending their neighborhood schools again. Brink and others saw this as an opportunity. Public elementary schools account for a large portion of the publicly owned green space within the city, and they are often present in areas with few public parks. A paper by Brink and graduate student Bambi Yost, Student ASLA, explains that "rather than [sitting] empty and abandoned after school hours, as they did during previous decades, neighborhood schools could serve as landmarks and civic centers celebrating the cultural and historic character of each distinct neighborhood." Elementary schoolyards in Denver are now open to the public after school.

"They're really breaking some new ground," says Robby Layton, ASLA, of Design Concepts Landscape Architecture, which has been involved with a number of the projects. "I think it changes people's whole perspective of the concept of schoolyards. This project shows that these urban green spaces can really have much more value than they do right now. School districts, as a reaction to all the things they've faced in the past few years, have sort of entrenched themselves. They've put up a wall. But schools are in a position to be the focus of the community, and I think it gets the community to support them more."

Brink believes that it is essential to involve the community in a civic process that begins before anything is designed and continues long after the project is completed. Prior to the construction of the learning landscapes, students, parents, and teachers are involved in creating a vision for the site. They are given pictures of possible design elements and asked what they value. Their responses are compiled into a wish list of elements they'd like to see on the site.

The community is not only asked to dream; it is actively involved in making these dreams a reality. Each school community is responsible for raising 1 to 2 percent of the construction costs needed to build its learning landscape. Getting individual community members involved in funding the project gets people excited and creates a feeling of ownership within the community. Schools go about this in different ways. Rosabella Guzman is the parent liaison for Munro Elementary. She says her school raised money by holding fun fairs. "Every Friday was Fun Friday," she explains. "We sold nachos and other stuff." Other schools had the children sell candy bars or collect pennies to support their playground.

Community members were also involved in the construction of the learning landscapes. In many cases, enlisting the community to help was very successful. "We had teachers, parents, and some of my personal friends out here working," says Barela of a community work day at Colfax Elementary. "We actually laid the sod, me and some teachers and custodians." They also laid 6,000 bricks, planted trees, and spread out the wood chips used in fall zones. However, sometimes it was hard to find volunteers, particularly in the beginning. Yost remembers one time when she and Brink had to go door to door in the neighborhood, trying to find people to lay sod. Though it can occasionally be difficult to organize volunteers, neighborhood involvement is an important part of the process. Like the community fund-raisers, it creates a feeling of ownership in those who participate.

Parents, students, and neighbors are also involved in the continuing improvement and maintenance of the landscapes. Children often create artwork such as tiled pots, banners, and murals that are displayed in the schoolyard. Many young children seem to enjoy sweeping, so there are brooms available at recess for them to sweep the paths. Brink says it's a great physical activity, and while some parents would be angry if they saw their kids picking up trash, parents don't seem to mind seeing their children sweep. Sometimes, the children help to maintain the landscape without even looking as if they're working. At Bromwell, a native prairie area was originally going to be burned once a year. However, the Environmental Protection Agency forbade it due to air quality concerns, so now the school just allows the children to play in it for a few months each year, and this provides the disturbance necessary to keep it healthy (being roped off during part of the growing season is also essential for its survival).

Some of the community maintenance is more structured. Many of the schools with gardens have garden clubs after school that the kids can participate in. There are 30 kids in Eagleton Elementary's garden club, which meets once per week during the school year and two times a week during the summer. Norma Vasquez is the afterschool coordinator at Eagleton Elementary. She lives in the neighborhood and has a daughter who attends the school. She is actively involved with the vegetable garden there. "My kids help me," she says. The produce of the garden is used to teach parents and students about healthful eating. The parents in that neighborhood have been very supportive of the garden, and this year it is being expanded with a section where they can grow vegetables for themselves. "A lot of the parents come from farms in Mexico. They have grown up in the fields, so they know about growing vegetables," says Vasquez. Sometimes older couples whose kids are grown will even come and help. The learning landscape has undoubtedly helped to create a stronger sense of community in Vasquez's neighborhood.

Engaging Graduate Students

Part of the reason the Learning Landscapes Initiative has been so successful at engaging the community is the participation of Brink's MLA students. As part of an agreement with the Denver Public Schools, a three-semester sequence of courses was developed. During the fall semester, students learned about design theory, engaged with members of the community, and created a master plan. In the spring studio, students produced design development drawings and cost estimates. A summer class allowed some students to participate in hands-on construction activities, working alongside contractors and coordinating neighborhood volunteers. All of the classes were interdisciplinary, open to both landscape architecture and architecture students. Brink originally taught all three courses, but later artists and other landscape architects from the area were involved in teaching.

Due to the scope of the program and the amount of funding pledged, it was necessary to plan many schoolyards each fall. Rather than having all of the students work on the same school, each school was assigned one or two students, who created a master plan for the site. In the spring, many

DANIEL JOST, ASSOCIATE ASLA. TOP: JEREMY BOIK. BOTTOM

students continued working on the same site. Students didn't have to take all three courses; however, to preserve a sense of continuity, those students entering the later courses were asked to respect the community design process and the previous students' work as they developed their designs.

At first it was difficult to attract students to any of the studios. "Most grad students don't want to do playgrounds," says Brink. "There's sort of a disdain for it." It was actually such a concern that led Brink to forge an agreement with the Denver Public Schools to fund the studio if there were not enough students to satisfy the university's size requirements.

Yost, a graduate student, tells a slightly different story. She says that Brink's reputation as a taskmaster played a role. "The students are afraid of Lois. Lois makes you work. She's a very tough, demanding instructor."

Whatever the reason for their initial unpopularity, there has been no problem filling the studios in recent years. One of the reasons may be how well they were funded. A university stipend was provided to each of the students to pay for the materials and supplies necessary for the studio. Students in later studios were also able to receive AmeriCorps funding for their participation. While many landscape architecture programs are involved in their communities, few have taken advantage of AmeriCorps funding in this way. It seems like something that could be further explored by those landscape architecture programs that have difficulty providing adequate financial aid for graduate students.

Many of Brink's graduate students have also discovered that those who take the sequence leave school with real-world experience. Yost says that working with Brink has shown her how to negotiate and fight for the rights of the children at public meetings when their interests are not being represented. She also values the construction administration experience she received in the summer studio. "I'm much more confident doing a design/build in the field than I am in the office doing simple graphics," says Yost. "I'm confident with heavy equipment. I know how to budget and talk to guys in the construction field." How many recent graduates can say that?

UC Denver students worked with the community to create master plans and design development drawings such as this design for Carson Elementary. Professional firms developed construction drawings using the community input gathered by the students.

A Mix of Ingredients

Since different communities choose different sorts of elements for their learning landscapes, no two are quite alike. However, they share some similar goals. Their first focus is the elementary schoolchildren who attend the adjacent schools. They strive to provide places for children to play and exercise in both structured and unstructured settings. When it is possible, elements that support the curriculum are integrated into the landscape as well. The designers strive to create multigenerational spaces that attract users from throughout the community.

Playgrounds. Every learning landscape has an off-the-shelf playground made by a company on the school district's list of approved manufacturers. Many of the playgrounds are integrated into the landscape with planting, but planters near playgrounds need to be raised a bit to discourage foot traffic. Usually, two different playgrounds will be constructed within close proximity, one geared toward younger children and one for older kids. The capacity for each play area is determined using a form Brink has developed. The school's gym teachers are often involved in the process of selecting equipment that will provide the most chances for physical activity. As the initiative has progressed, simple playgrounds with platforms and a slide are giving way to playgrounds that offer chances to climb and build upper-body strength. At some schools, old pieces of play-

BAMBI YOST, STUDENT ASLA

ground equipment have been reused with slight modifications and improved safety surfacing. Extra effort is taken to fit swings into the sites, as they tend to be very popular.

Boulders. Boulders have become a staple of the learning landscape play areas. They provide obstacles for the children to navigate and sitting areas where they can gather. Brink says that three-to-five-ton boulders are ideal. Smaller boulders may present a tripping hazard. At first, the district was concerned about using boulders for liability reasons. There was a big meeting debating whether they could put large stones on the playground sites. Eventually it was decided that boulders less than three feet tall would qualify as seating areas and taller boulders would require fall zones.

Barela says the boulders have been a success. "I wasn't too sure about them at first, but I've never had an injury on those boulders. They jump from boulder to boulder and play hide-and-seek." Boulders can also provide a learning opportunity when designers use a variety of different stones including examples of igneous, sedimentary, and metamorphic rocks.

Custom Play Elements. Other nontraditional play elements may reflect the history of the community. A mound with rubberized surfacing at one school called "struggle hill" recognizes the redlining that kept African Americans out of that community for many years and provides a place for playing king of the hill.

Sports Fields and Ball Courts. Nationally, lawn playing fields are a standard feature at most elementary schools, but most of the fields at the Denver schools were pea gravel prior to the initiative. The new fields are usually irrigated sod fields. Brink says sod is ideal as it stays cool in the hot summer months; however, Astroturf is used on some sites where the fields are small and receive lots of use. The fields are used by gym classes for a variety of games including football, capture the flag, and soccer. Hard surfaces and equipment are also provided for games such as four square, basketball, and tetherball.

The design of four-square courts is a creative enterprise. Instead of putting numbers in the squares, the designers put the names of oceans, cities, or mountain ranges. One four-square court uses the state bird, flower, animal, and dinosaur.

Learning Opportunities. Maps, compasses, and words are often painted on the asphalt outside basketball areas, providing possible opportunities for learning and creative play. At Ellis Elementary there is a political map of the United States, and at Bromwell there is a full-scale model of the solar system integrated into the paving that continues out into the community.

Natural Areas. A popular feature at many of the schools is a restored natural area, often with native grasses and herbs. Jonathan Wolfer, the current principal at Bromwell, says the native grass area there is very well used. "The native grass area is the biggest success. The kids love playing in the area." The areas are used for bug collecting and all sorts of imaginative play. Brink says the kids like to chop up the plants and make "potions." Another popular activity is "memorial building." On the day I visited, I found numerous "memorials" created out of small rocks and pieces of plants arranged on rocks. Some are quite artistic, miniature Andy Goldsworthy-style installations. Many schools would discourage children from ripping leaves off plants; however, Brink has convinced many teachers and principals to give the children free range in the natural areas. "They're the wildlife in here and you gotta let them graze," she says.

When the naturalistic plantings are raised as they are at Bromwell, even disabled students can scavenge in them. They can touch plants and pull things apart just like the other kids. Brink has encouraged the use of tactile environments like the grassland at Bromwell for this reason. Creating mounds also allows children in wheelchairs to maintain eye level with their nondisabled peers. Brink says a three-foot mound provides a comfortable scale for small children, while allowing adults to look over it. Accessible paths, ramps, and play equipment are also provided as required by the ADA.

Habitat areas are incorporated into the curriculum at some schools. "We bring our science classes outside for studies of tree varieties, grass varieties, and habitats," says Wolfer.

Outdoor Classrooms. The landscape is also used for language arts classes. Some sites have outdoor classrooms where teachers can read to students. "We'll have small reading groups taking place outside where it's quiet and calm," Wolfer says. However, Wolfer acknowledges that teachers at his school may have more opportunities to take advantage of the landscape than many underperforming schools. "We're a high-achieving school so there's not the pressure for test performance," he explains. "Classes feel free to go outside whenever they see fit." This may not be the case at some schools.

Fences/Gateways. To keep balls from flying into the street, many of the playgrounds have tall fences. However, artistic gateways are constructed to welcome the community into the space after school hours. Many of these gateways become neighborhood landmarks. The gateways are all unique. Simple differences help to create a unique sense of place.

Artwork. Fences are often decorated with murals painted on plastic canvases tied to the fence. These murals are created by the schoolchildren in art classes and afterschool clubs, though sometimes an adult volunteer is involved in transferring the students' work to the mural and integrating multiple drawings. Banners created by the children are hung from poles around many of the sites. Local artists have even contributed artwork to some schools. Kinetic weather sculptures are found on at least two sites.

Seating/Shade. Many of the children who attend the school will come to play with their parents outside school hours and during vacations. Shaded seating with views of the playground is provided for teachers and parents so they can keep an eye on their children. Brink convinced the district to plant poplars and other fast-growing trees at many of the schools so that shade could be provided right away. Shade structures are also used on every site, but they do not always have fixed seating because some of the structures are also meant to serve as stages where performances can take place.

Teens

The playgrounds are often popular hangouts for teenagers during the evenings. Teens will take advantage of the basketball courts and seating areas. While most

of the sites successfully integrate people of various ages, a few sites get taken over by gangs on weekends, including Munro Elementary. Brink is trying to come up with ways that would encourage more mixed use of these facilities. She's encouraging "working with gangs rather than eliminating them...giving them a space to hang out where other folks can hang out, too."

It is interesting that very few sites have had issues with graffiti. In fact vandalism in general has decreased at those elementary schools where a learning landscape is installed, according to a study by Yost.

"At the beginning we were kind of afraid that high school students would mess with the garden," says Vasquez. "A lot of teenage students come and play basketball. There were a couple who were doing grafitti.... They saw the parents were coming every single day. They knew we were watching the garden." Vasquez pauses a moment. "And you know what? I think they were watching the garden, too." According to Vasquez, many of the neighborhood teens have also come to take pride in her community's learning landscape.

UC Denver students were not only involved in planning and designing landscapes, *above*, but a class during the summer session allowed them to get hands-on construction experience, *below*.

Creating Opportunities for Professionals

Once the students complete the master plan and the design development drawings, the construction drawings for the landscapes are completed by professional landscape architecture firms, using the students' work as a starting point.

Some professional landscape architects had mixed feelings about the idea of working from students' plans, especially in the beginning. Jill Gaschler, ASLA, of GPD Land Design, who has been involved with 25 learning landscapes, says she had no problem building on student work when they had a good concept, but some students weren't as attentive as others.

Landscape architect Kerry White, ASLA, also had doubts at first, but she came to love working from the students' plans. "With the very first project, I was uncomfortable with it. It's kind of an ego thing," admits White, who worked on 13 learning landscapes. "But I learned how to make it a very collaborative process. It actually influenced the way we worked on other projects in the office—not having one person do the design and carry it through but getting multiple perspectives."

The community input embedded in the plans was often very valuable. White explains: "[The students] had time to delve into the background research that you'd always like to do as a landscape architect. Unfortunately, projects aren't always funded that way."

However well intended the students' plans, changes to their layouts were usually needed to deal with the realities of the site. There were often conflicts with underground utilities and rights-of-way. Maintenance concerns, safety, and grading often needed further consideration as well. "We definitely try to reinforce their intent, but many times we change the layouts," says Gaschler. "They will put things right where there's a grease trap or an underground drain."

"A couple of times, we actually hired the student as an intern to continue on with us, so they got to continue the process," Layton says. At least two students had a chance to work on their own plans. Many additional students were hired as interns based on their experience with the program and given their first taste of a professional office.

Landscape architects involved with Learning Landscapes say it has changed how they approach schoolyard designs outside Denver. "I think a lot of other places got a learning landscape even though they didn't know it," says White. Gaschler says that it has changed her approach to urban schools in particular by encouraging her to "reinforce the curriculum, add habitat, and [do] other things that may not be typical for an urban school," even for smaller schools. Layton says the program has helped him convince other school districts to try more innovative design elements.

BAMBI YOST, STUDENT ASLA

Looking Forward

Master plans have now been completed for every elementary school in the Denver Public Schools. However, Brink has not stopped to

rest. She and her graduate students have been conducting research on the landscapes to see their effect on grafitti (it's down) and active play (it's up). In the future, Brink hopes to do a comprehensive study of play equipment—what works and what doesn't.

Administrators with the district say that opening up schoolyards to the public when school is not in session has been a success. "It reinforces the point that the school is an important part of our community," says Wolfer, who has been principal at Bromwell for the past three years. "There are some parents of younger children who've come on during school hours. We just remind them that it's prioritized for our children during school hours, but they're welcome to come back at 3:30."

Natural areas are popular play spaces at some schools, including Columbian Elementary, *above left.* At Bromwell, students use rocks and plants to create little "memorials," *above right,* in native areas and garden beds. Learning Landscapes often include artwork created by students, *below right,* or local artists, *below left.*

Of the numerous sites that *Landscape Architecture* visited, only one had a gate that could be closed and locked. Generally, Brink says that limiting the number of entrances is more important than providing a gate that would keep visitors out during school hours. "When you walk through the gateway, all eyes are on you. If you're gonna walk through, you better belong here." Brink says that 70 percent of the schools do not have any sort of gate. This includes numerous schools in Denver's industrial crescent.

However, a few schools have gates. Many of these schools, like Colfax Elementary, are located on small sites on busy arterial roads, and it would be difficult to

DANIEL JOST, ASSOCIATE ASLA, TOP RIGHT AND BOTTOM TWO; BAMBI YOST, STUDENT ASLA, TOP LEFT

keep balls from flying into the street if the gateway did not close. Most of these gates are not locked. Some schools have requested gates that can be locked during the school day as a security measure due to repeated problems with custody disputes or perceived threats of crime. These schools are still open to the community after hours, though occasionally no one will remember to unlock the gate after school lets out.

Brink was on sabbatical this spring, working on a web site that would help other school districts understand what it would take to start a similar program. This work is being funded by a two-year grant from the Robert Wood Johnson Foundation. She hopes to have the web site completed by this fall. She is also courting officials in Boulder with the idea of establishing a similar program there.

If that happens, the residents of Boulder have something to look forward to. "The results speak for themselves in terms of decreased student conflict and discipline problems," states Bingham. "I've been to several of the other schools, and the before-and-after contrast is so stark. They're now these beautiful green artistic environments where students can play and learn. In some neighborhoods it's really the prime place for kids to play on the weekend or even in the summer." LAM

Many Learning Landscapes incorporate outdoor classrooms, *above*. Some playground surfaces are painted with educational designs, *below*.

PROJECT CREDITS **Steering committee of Learning Landscape Alliance:** Lois Brink, Affiliate ASLA, coordinator, University of Colorado at Denver; Allen Balczarek, Charles Burdo, Mike Langley, Denver Public Schools; Jerry Garcia, City and County of Denver; Tom Kaesemeyer, Gates Family Foundation. **Funding:** Buell Foundation, Caring for Colorado Foundation, Central Denver Ironworks, Cherry Creek Art Festival, City of Denver Community Block Grant Program, Cordillera Asset Management, Daniels Foundation, Denver Broncos, Denver Foundation, Denver Nuggets, Denver Public School Alumni, Denver Public Schools, DPS Elementary School Fund Raisers, El Pomar Foundation, Elementary School Fund Raisers, First Bank/Roger and Margaret Reisher, First Data Western Union Foundation, Gates Family Foundation, Greater Outdoors Colorado, Head Start Program, Hensel Phelps Inc., Kaboom, Kellogg Foundation, Kronke Sports, Land Title, Musser Funds, Piton Foundation, Salazar Foundation, Stapleton Foundation, University of Colorado, West Colfax Partnership. **Research partners:** Caring for Colorado, Colorado Department of Public Health and Environments: Physical Activity and Nutrition, Denver Health, University of Colorado Health Sciences Center, Kaiser Permanente, Robert Wood Johnson Foundation.

Resources

- Learning Landscapes web site: *www.learninglandscapes.org.*

TURF Including Landscape & Hardscape DESIGN-BUILD

Related Articles

ProGreen Expo
January 21-25, Denver, Colo.

Parks in the Desert
Aesthetically pleasing turf with limited water resources
by Don Dale

Leasing Helps Pacific Sod Grow
A solution for maintenance headaches
by Paul Alexander

Switching to Synthetic
Grand Junction replaces the natural grass of Stoker Stadium Field
by Suz Trusty

Up on the Green Roof
Growing industry presents new safety challenges
by Barbara Mulhern

Article Tools

e-Mail article
Print article
Send us feedback

Table of Contents

WEST FEATURES

Putting Landscapers to Work

by Tom Crain

The Learning Landscapes program transforms school grounds and brings new opportunities

It all began 11 years ago when Lois Brink, a concerned mother whose kids were attending Denver's Bromwell Elementary, couldn't tolerate her children's school playground. In her mind, and that of most of the other parents, the playground more closely resembled a crumbling prison yard than a kid-friendly recreational oasis.

Brink, a University of Colorado-Denver (UCD) professor of landscape architecture, was uniquely suited to lead the battle cry to rework this piece of

Before and after picture of Ashley Elementary School, which was completed in August 2010.
PHOTOS COURTESY OF DESIGNSCAPES IN DENVER, COLO.

hallowed ground for the children. By enlisting some of her landscape architecture students to design a play area tailored to the neighborhood's needs, and working with other Bromwell parents to raise a quarter of a million dollars, her grassroots efforts succeeded in transforming her school's play yard.

Now, the remaining 80 public elementary school playgrounds in Denver have been transformed, or are in the process of being transformed, into attractive and safe multi-use parks designed to reflect the cultural heritage of their surrounding communities. What's more, the Learning Landscapes program, with Brink now its executive director, is putting a lot of Denver-based landscapers to work.

"A schoolyard is more than just a playground," says Brink. "It's a catalyst for healthy living; it's for embracing the slow wonder of life and creative play; it's for experiencing nature in our ever urbanizing cities; it's for vegetable gardens and reuniting our youth with the joy of food, from seed to table; it's for art as an expression of children and local artists; and it's for bringing communities together."

According to Brink, the program offers an experiential learning process for students, including assisting them in becoming more physically active and civic minded, while reconnecting communities with their public schools.

The Learning Landscapes program continues to roll along with a solid foundation of community support. In 2003 and 2008, Denver residents voted to pass multi-million dollar bond initiatives to fund the program, ensuring that all 81 schools are on the roster for a playground overhaul, whether in upscale Cherry Creek North where Bromwell is located or impoverished inner-city downtown Denver.

Designscapes, a Denver-based landscaping company, has been with Learning Landscapes since its inception. It has designed and installed at least half of the renovated Denver Public School playgrounds to date, and it also has two-year package agreements to maintain the playgrounds it has built.

Incorporated in 1991, Designscapes is a design-build company serving high-end residential properties in southwest Denver, and it also provides full-service maintenance for residential properties including mowing and snow removal. It employs 30 salaried team members and nearly 150 seasonal employees.

The McGlone Elementary School project demonstrates design elements that are incorporated into every learning landscape. This design has a Four Seasons theme. The Four Seasons Plaza has a calendar sandblasted into the playground, as well as an asphalt painting, sod field, central gathering space and shade structure.

"Generally, the Learning Landscapes playgrounds will integrate three surfaces including mulch, SBR rubber and natural or synthetic turf," says Tom Brownfield, Designscapes division manager. "When these playgrounds are transformed, so are the kids that attend these schools. They now want to come to school and want to learn. It's incredible to see this kind of transformation."

A Learning Landscapes design consists of traditional elements, including turf playing fields; slides, swings and monkey bars; and asphalt basketball courts. Additional elements can include cultivated and habitat gardens, outdoor sculptures, amphitheaters, shade shelters and community gateways. Often, for the first time in the schools' histories, their playgrounds are integrated with vibrant colors, elevation changes, artwork and even lawns and gardens.

Kerry White of Urban Play Studio, a Boulder-based landscaping consulting business, has been involved with the design and construction of 14 of the playgrounds, including Ellis Elementary Learning Landscape in southeast Denver. "Ellis used to be a neglected playground with a worn asphalt play pad and pea gravel field," says White. "We replaced it with new colorful court games, play equipment and a sodded field."

Many of Ellis' students are new immigrants, so local artists volunteered to create a giant globe play pad with two curving "geography bands" running across the playground depicting the latitude and longitude of Denver. Two boulder "globes" were cut in half, one along the latitude and one along the longitude. Colorful markers highlight such locations and corresponding landmarks including the monumental statues of Easter Island, the famous painting "Las Meninas" of Madrid, The Great Wall of China and the giant crab of the Sea of Japan. Because the markers are laid out to scale, Ellis students can measure just how far they are from their school.

Barnum Elementary project, completed in August 2010. Good Land Construction was the landscape contractor at this school.

Other site features include a geography garden, a globe climbing boulder and a colorful custom shade shelter decorated with flags from around the world. Gardens were created with native plants and composting bins were added, and green roofs were introduced on the school building.

Students from the school colored animals on paper with the art teacher.Design Concepts found a manufacturer to create resin climbing structures based on the students drawings.

Transforming cracked asphalt and pea gravel playgrounds into lush, green and growing state-of-the-art Learning Landscapes isn't an inexpensive proposition, according to Cate Townley, Learning Landscapes' volunteer and maintenance coordinator. "It takes more than just moving in some monkey bars and a couple of pieces of new equipment," she says. "Most sites are now incorporating green lawns and gardens, so they need irrigation. They also need corresponding new hardscapes. The cost can run up to $400,000 to $500,000 each."

With recent budget shortfalls hitting or threatening most major city school systems, including Denver's, keeping up adequate budgets for the program is a constant challenge. So is the scheduling of design and construction so as not to disrupt regular school operations, and ensuring long-term maintenance. Then, there's the constant flux of new principals that want to put their own individual thumbprint on the playgrounds they've inherited.

Despite the difficulties, the Learning Landscapes program is not only surviving, but thriving via an extensive collaborative process.

Once the new playground is up and running, the Denver Public Schools' facility managers and grounds departments share maintenance duties with private landscaping maintenance companies. Maintenance tasks include litter control and vandalism reporting; raking engineered wood fiber; irrigation; mowing, aerating, reseeding and weed control of the turf; tree pruning for those trees reaching 8 feet or higher; and re-striping asphalt in game areas. Learning Landscapes committees and community members also work with school grounds crews and contracted private landscapers to take ownership and help maintain lawns and gardens. These teams can also help with organizing schoolyard cleanup events, spreading mulch, habitat and vegetable garden planting and reporting maintenance and safety issues.

Mountain High Tree, Lawn and Landscape Company, with offices in Denver and Colorado Springs employing 50 people, is another company involved with the program. This summer, the company led volunteer days at Carlson Elementary School in east Denver, inviting the community to lay sod and plant trees. It employed some interesting gardening equipment that included shovels crafted from re-fashioned metal from confiscated guns and rifles. "What were once weapons of destruction for inner city kids are now tools to plant trees of hope," says Ralph Bronk, Mountain High president. "About 30 3 to 4-inch-diameter trees were planted. We had a great turnout and the crowd was very enthusiastic. It was rewarding to work with so many volunteers and to get that much done."

Sandblasted games have been incorporated into the design on this playground.

The success of the Learning Landscapes project demonstrates a healthy enthusiasm for aesthetics, as well as a common-sense approach to maintenance, safety and recreational issues. The principal value of these projects is their multi-purpose nature and individual thumbprint developed by the community. By bringing together diverse groups working in concert, a civic process, not just a project, is created. UC-Denver landscape architecture students provide design services to local communities while learning the value of civic responsibility; community members, school ground crews and landscaping companies work together in creating, building, maintaining and celebrating the new landscapes; and best of all, the schools' children are energized and enlightened by the fresh new look and feel of their school's renovated playground and surrounding landscape.

For the past 20 years, Tom Crain has been a regular contributor to B2B publications, including many in the green industry. He is also a marketing communications specialist for several companies in the travel, agriculture and nutrition industries.

Send Us Your Feedback

* Your e-mail:

* Subject:

* Name:

Company:

Title:

*Required Fields

Message:

Enter code below

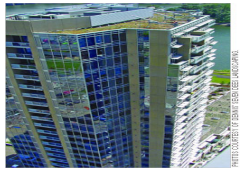
Type the two words:

Related Articles

Parks in the Desert

Leasing Helps Pacific Sod Grow

Switching to Synthetic



Up on the Green Roof

Scene

HUSTED: NOT YOUR DAD'S BROWN PALACE > 2F

APOCALYPSE, NOW: PANGAEA'S "MARISOL" > 3F

MUSIC: A FRENCH INVASION? OUI! > 5F

THE DENVER POST

TUESDAY, MARCH 22, 2005

★ SECTION F

Helen H. Richardson | The Denver Post

Children at Swansea Elementary enjoy recess on the school's new playground equipment. Hanging with the kids is Lois Brink, a CU-Denver landscape architect who has been researching the link between playtime and both behavior and learning.

A plea for play

Researcher Lois Brink is on a mission to return recess to cash-strapped schools

By Jenny Deam
Denver Post Staff Writer

Lois Brink, considered the First Lady of Playgrounds, wants to show bean counters and school policymakers who fret over academic performance that they've got it backward.

Playtime, she insists, matters.

As public schools across Denver and the state reel from the double whammy of budget cuts and pressure to improve test scores, one of the first things eliminated from a child's school day is physical activity.

According to a recent Denver Public Schools report on the state of physical education in its schools, the average time Denver students spend in elementary P.E. is between 60 and 75 minutes a week — less than half of what it was 12 years ago.

And that is the average. Today some Denver grade schools, often in low- to middle-income neighborhoods, have dropped P.E. entirely, a casualty of declining funds.

Many other schools offer phys ed only once a week for a half-hour, taking advantage of the fact that Colorado remains one of only two states without a requirement for physical education. The other is South Dakota.

This comes at a time when morning or afternoon recess also is disappearing to squeeze in more study time.

"It is absolutely the last thing you should be doing," says Brink, a 50-year-old landscape architect and playground researcher. She has built a reputation by helping bring more than 30 playground installations to city schools.

It is no coincidence that Brink is the mother of two children and she finds disheartening the angst to prove a school's worth through test scores.

"I just want to scream sometimes," she says.

Instead of cutting physical activity from a child's school day, Brink insists districts should be embracing it. And, she adds, politicians should be funding it.

Her theory — time-tested by anyone who has spent an hour or more in a roomful of children — is that grade-schoolers are more focused and better behaved if given the chance to blow off some energy during the school day.

The more focused children are, Brink says, the more efficiently they

> See BRINK on 6F

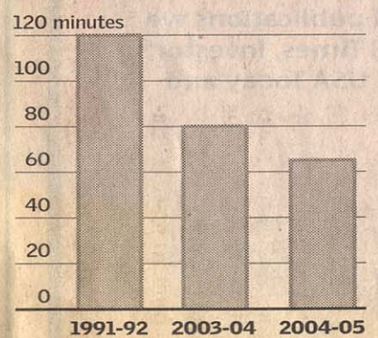
BRINK: Playtime tool for learning

Helen H. Richardson | The Denver Post

Lois Brink has installed several "learning scapes" (playgrounds) at schools and is trying to prove their presence helps diminish behavioral problems among children.

Less exercise

During the past 12 years, Denver Public Schools elementary physical education time has decreased by an average of 40 minutes per week. The National Association of Sport and Physical Education recommends 150 minutes per week.



Source: Denver Public schools — The Denver Post

< CONTINUED FROM 1F

learn. And the more efficiently they learn, the better they perform on tests.

Think of it as swing sets in the Time of CSAP.

Late last year, Brink, who is an associate professor at the University of Colorado at Denver, received a $150,000 Robert Wood Johnson foundation grant to study the correlation in Denver schools between physical activity and behavior and social skills.

She hopes to take her research a step further and determine what effects physical activity has on academic performance.

This kind of research is starting to emerge around the country. Both in California and Illinois, recent studies have shown a direct link between higher academic achievement and physical activity.

"How many adults go absolutely nuts sitting still for an hour in a meeting? And yet we expect kids to sit for three hours straight?" asks Paula Keyes Kun, director of communications for the National Association for Sport and Physical Education.

New schools in some parts of the country are being built without playgrounds. Recess is regarded as expendable, she says.

Still, there are no clear villains or easy answers.

"I endorse the theory. Of course I do," says Elaine Berman, co-chairman of the DPS Commission on School Nutrition and Physical Activity, which is taking aim at childhood obesity.

But she asks how a state mandate for physical education would work unless it comes with a funding commitment.

What happens instead, Berman says, is individual schools are left to make nearly impossible choices. This is especially true in neighborhoods where parents can't afford to fill in the money gaps with fundraising and donations.

In Denver, for example, recent voter initiatives declared money must be provided for music and art programs. Yet principals are ordered to slice thousands of dollars from their yearly operational budgets.

And because teacher salary and school ratings are now tied to CSAP scores, no school is going to reduce the time for test subjects such as math and literacy.

It's small wonder, says Brink, that P.E. becomes an easy target for the chopping block.

Not to mention that many believe gym and recess are not as important as academic subjects. Or are they?

At Fairmont Elementary School in Denver's Baker neighborhood, principal Melanie Byers saw the number of suspensions drop from 75 to five in the three years since one of Brink's "Learning Landscape" playground structures was installed.

Before, at her school with more than 85 percent of its students eligible for reduced or free lunches, there was no playground, only a dirt field, chipped blacktop and a few ancient iron rings.

The high number of suspensions came from outdoor fights, which Byers attributes, at least in part, to children having nothing to do.

This school year, Fairmont dropped its P.E. program when faced with budget cuts: Byers thought she could save money by not paying a gym teacher.

Next year, she vows to get it back. What she noticed most this year was a lack of social skills and camaraderie among students. She can't help but wonder if it comes from not having a gym class to learn strategy and teamwork.

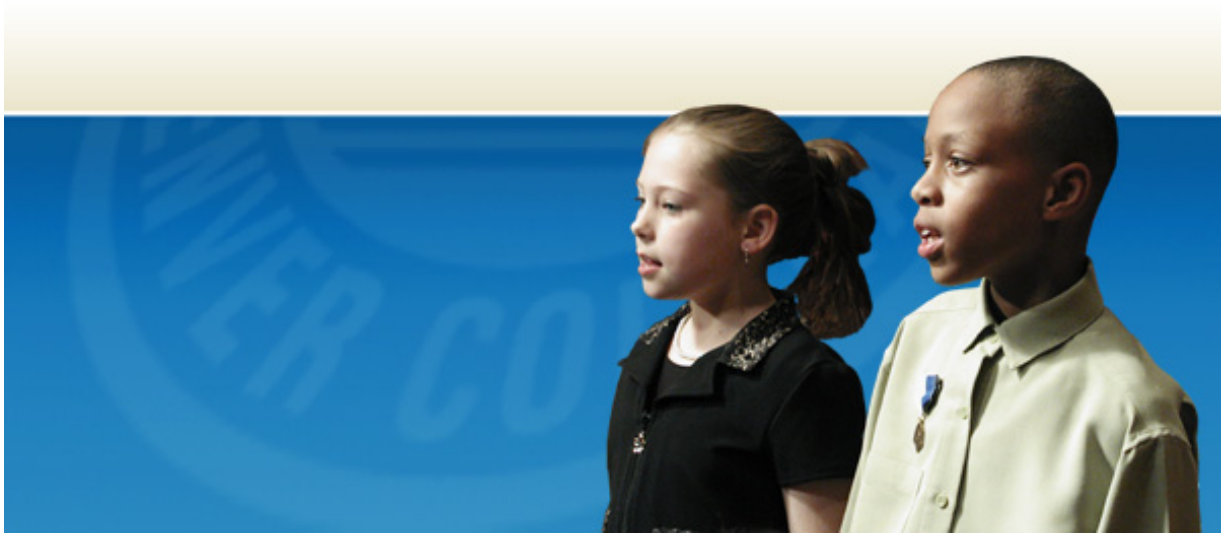
Byers wants to host a field day this spring, so each day at lunchtime recess she works with small groups of kids, teaching them how to toss a softball or navigate the long jump. Without gym class, she says many of her students have no concept of track and field.

At Swansea Elementary, with its playground in the shadow of the Interstate 70 overpass, principal Mary Sours says her students benefit from playtime.

"I will always have fewer office referrals on an outside day than an inside day," she says of weather that keeps children indoors.

From that, she says, you can draw a straight line to learning. "Active bodies," Sours says, "means active minds."

Staff writer Jenny Deam can be reached at 303-820-1261 or jdeam@denverpost.com.



Sept. 22, 2010: Fun for Kids...of All Ages

back to listing

Sept. 22, 2010: Fun for Kids...of All Ages

Dear DPS Community:

One of my best moments of the school year so far wasn't in a classroom. It was a simple walk last week around the new playground at McGlone Elementary School-seeing the faces lit up with carefree and unbridled joy, hearing the unmistakable playground chorus of kids at play, and fighting the very strong urge to shed the suit jacket and make a run at the monkey bars.

We all talk a lot about what school should be and what kids should get out of their time in the classroom. We also need to make sure that we don't forget that a big part of school should simply be letting kids enjoy being kids -playing and having fun, without a care in the world.

Explore
DPS Communications

Search

CALENDAR OF EVENTS
See What's Happening at Denver Public Schools
Oct 20

NEWSROOM

About Denver Public Schools Superintendent

News Clips

MyDPS Newsletters

- Superintendent's Blog

Press Releases

Archives

Media Resources

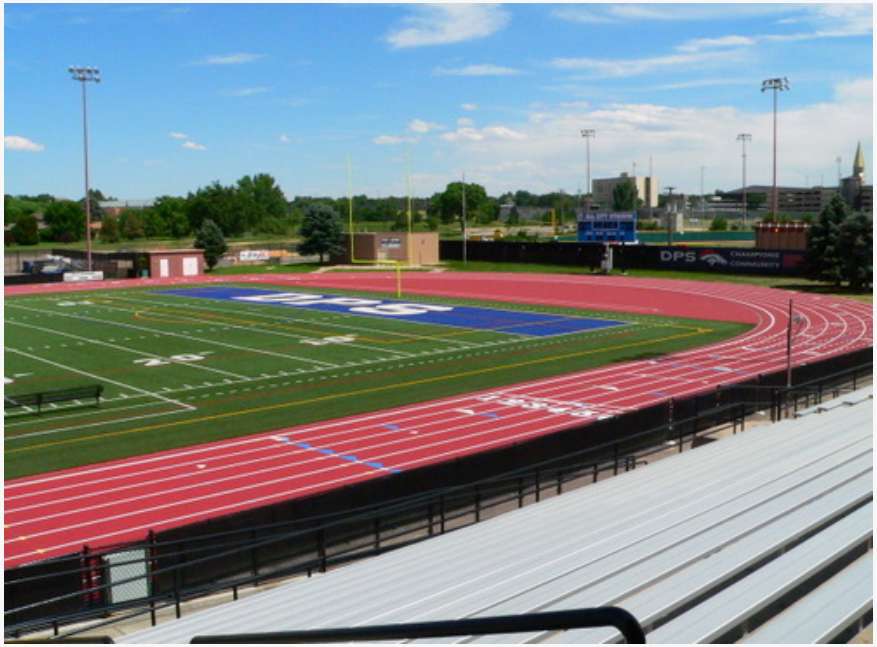
We have new Learning Landscape playgrounds popping up at elementary schools and new athletic tracks and fields going in at high schools all across the city, thanks to the bond program that our community overwhelmingly supported in 2008. Many of you have probably noticed new playground equipment brightening up your neighborhood elementary schools and revamped fields at your local high school. Through the 2008 bond program, 55 of our elementary schools have newly constructed playground facilities, and 7 of our high schools have new athletic fields.

(*Image: Dora Moore's Learning Landscape*)

Learning Landscapes include a playfield, playground equipment, gardens, trees, shade structures and a gateway to their neighborhoods. We strongly believe that the playground area should not only provide our students with a fun and safe place to play and get some exercise, but should also serve as an extended learning environment. Examples of this can be seen with the implementation of school gardens, world maps, number lines and fractions incorporated into asphalt games, sand-blasted poems, and student tile work and art banners.

And the playgrounds do much more than serve students during the school day. They are also a great community gathering spot and recreational oasis for families on evenings and weekends. We want our schools to be anchors of our communities-serving families well beyond the normal

school hours-and the Learning Landscapes and refurbished athletic fields are a big part of that effort.



(*Image: All-City Stadium at South High School*)

And they are just one piece of the $454 million bond program. To date, we are a year ahead of schedule and more than $70 million under budget in completing the hundreds of school construction and renovation projects that are part of that program. Due to strong cost controls and favorable market conditions, we currently expect to be able to complete all of the original bond projects in four years rather than five and have savings to spend on other high-priority construction, renovation and technology projects, including a new Stapleton elementary school, a new early childhood center in Far Northeast, and significant upgrades to classroom technology, including new computers and audio-visual equipment.

Click here for a full list of Learning Landscape dedications that have taken place over the past few weeks. Click here to download a Fox31 News video report on Dora Moore's Learning Landscape dedication.

Thank you for your support of this program and for your investment in our schools and in our communities. See you at the monkey bars.

Best,

Tom

- Choice Office
- Human Resources
- Safety and Security
- Careers
- Safe 2 Tell
- School Calendar
- Menu
- Parents and Students
- Arts
- Sports
- Volunteer Office
- DPS Foundation
- Infinite Campus
- Reports (staff only)
- Webmail
- Log in

Education

Richard S. Chapman, Education Editor — (303) 892-2783 • **e-mail** — metro@RockyMountainNews.com

Power PLAY

Tale of Two schools

This is another in a series describing how two Denver public elementary schools serving vastly different neighborhoods are answering the state's demand for improved student test scores. Like all other public elementary and middle schools, Bromwell in Cherry Creek North and Cheltenham in West Colfax will receive a grade at the end of the school year based on how well students perform on standardized tests. Schools that fare poorly and fail to improve face a state takeover.

Schools in different sections of Denver realize that nice playgrounds promote learning

By Lisa Levitt Ryckman
News Staff Writer

Cheltenham Elementary School floats on an urban island ringed by chain-link fences and busy streets. The sun bakes the school's piles of brick, pools of gravel and wide stretches of asphalt, relieved by welcome swaths of grass on every side but one.

The playground.

At recess, the 700 kids at Cheltenham run, jump and fall on a bleak stretch of blacktop and pea gravel, skinning knees, bumping heads, scraping elbows and sometimes breaking bones.

Hit the ground at Cheltenham, and it's going to hurt. It's been that way at many Denver Public Schools for 50 years: dirt-patch playgrounds and vacant-lot fields, where the only living things are the kids.

The "scorched earth" approach to play space, landscape architect Lois Brink calls it.

But it takes green to make green, and in the budget-conscious world of DPS, playgrounds compete with basics such as paying the electric bill. Grass doesn't come cheap.

"If I have to have a trade-off between a playground and adequate heat and a non-leaking roof, those are going to take priority," says Mike Langley, DPS executive director of facility management.

Sod costs about $1.50 a square foot, and DPS grade schools have an average of 43,000 to cover. That's about $65,000 right off the bat, plus the maintenance costs of sprinklers and water. But Langley would gladly spend the money — if the

See **SCHOOLS** on **53A**

Cyrus McCrimmon/News Staff Photographer

Children and parents at Bromwell Elementary School in Denver walk through a fanciful gateway that links the playground and the surrounding neighborhood.

Cyrus McCrimmon/News Staff Photographer

Cheltenham Elementary School fourth-grader Lauren West walks across the blacktop playground after school. Children sometimes suffer scrapes and bruises on the unforgiving asphalt and barren field beyond.

TALE OF TWO SCHOOLS

From barren to beautiful

SCHOOLS from 52A

district had it.

"If you talk to educators, they would tell you there is a link between your play areas and your overall environment and the quality of learning and the ability to learn," he says. "We want to try to provide that."

The minute Cheltenham Principal Kay Frunzi arrived a year ago, she knew she had to put some grass between her school and West Colfax Avenue. So she thought about who might have the money.

She wondered about the new $360-million Denver Broncos stadium being built just a few blocks away. Then she sat down to write a letter to Broncos owner Pat Bowlen. Maybe the Broncos would buy them some sod.

"That's how naive I am," Frunzi says, realizing it would take more than a letter, which she never mailed.

In the school newspaper, fifth-grader Trenell Sanders makes a compelling case for grass.

"We need grass because kids are getting hurt and they're missing out on their learning," he writes. "Cheltenham's field looks very tacky . . . when people look at it, they probably wouldn't want their kid to go to a school looking that way. That's why I think people don't have pride in Cheltenham."

Last spring, Frunzi tried to tap into a playground renovation program born at Bromwell Elementary, another Denver public school.

Enter Bromwell's playground and feel the magic: big trees and whimsical banners, rocks to clamber over and swings and slides and climbing structures painted green, purple and orange.

It wasn't always that way; a few years ago, Bromwell's playground was as dull-normal as any other. But the school became the incubator for an idea from one of its parents, Lois Brink, an associate professor of landscape design at the University of Colorado-Denver.

Challenged to develop a hands-on project for her graduate students, Brink thought of the often barren world of elementary school playgrounds. Empty canvasses of land just waiting for a creative hand.

"We wanted to raise the standard of what a playground should be, to make it a place to learn and a community gathering place, to make it a focal point of the community," Brink says.

Bromwell was the perfect proving ground, Brink figured, because its parents could raise the bucks. So they formed a landscape committee made up of people who wanted to go beyond just planting petunias out front. Together, they developed a four-phase master plan for the school.

Up went a fanciful gateway to welcome the whole community into the playground, an outdoor solar system plaza and a grassland garden. Still to come: an outdoor stage and a weather-monitoring station. It's a place that seems to inspire peaceful and often purposeful play.

Cyrus McCrimmon/News Staff Photographer

Fourth-graders play in Bromwell Elementary School's playground. Helen Katich, lower left, climbs the rock as Marisha Vandenberge leaps off the rock. Standing on the rock are Natalie Fine, left, and Phoebe White.

> *"We need grass because kids are getting hurt and they're missing out on their learning. Cheltenham's field looks very tacky . . . when people look at it, they probably wouldn't want their kid to go to a school looking that way. That's why I think people don't have pride in Cheltenham."*
>
> **Fifth grader Trenell Sanders,** writing in Cheltenham school newspaper

"It's more than just putting in a couple of swings," Brink says. "This has much bigger ramifications in terms of children and their ability to learn and the self-esteem of a community."

DPS' Langley looked at Bromwell and was sold. A year ago, the school board approved a partnership with UCD, and 12 schools went through the master plan process with one of Brink's students. Most of the elementaries are schools such as Cheltenham, located in lower-income neighborhoods.

"Our goal is to build these so we can demonstrate that you can improve learning, you can improve test scores by the environment kids are in, and that includes their playground," Brink says.

Last year, 89 percent of Bromwell's third-graders scored "proficient" or better in reading on the Colorado Student Assessment Program, the state standards test, ranking them No. 2 in the district. Cheltenham, with 29 percent at those levels, was 61st.

A great playground isn't going to bridge that gap. But people at both schools think it might help.

Garden Place Elementary in the Globeville neighborhood has finished its new $300,000 playground, due for dedication in a week. A teacher there told Brink that the kids have become more attentive and better behaved in class because they can't risk being kept inside at recess. Playgrounds have power.

"You can't do that with a level dirt field," Brink says.

Money for all this poses a profound problem. Implementing a full master plan costs about $500,000, and the district can afford to pay about $30,000. That acts as seed money that can attract more money, Langley says, but it's always a scramble to find funds. Brink says she hopes they can get big construction companies to adopt schools and donate time and work.

DPS is dedicated to upgrading every playground that needs it, which is pretty much all 84 of them. So they take it a step at a time.

"Having a master plan gives us something to build to," Langley says. "Then we can go out and get the grants."

Cheltenham was one of 15 schools that applied for a master plan this year. Neighboring Colfax Elementary, which sits even closer to Colfax Avenue, was chosen. Cheltenham was one of four schools that weren't.

Next year, Brink thinks.

Last week, a few blocks from Cheltenham at Mile High Stadium, crews were replacing 40,000 square feet of sod — about the size of a typical DPS elementary school field — for the second time this season. Frunzi would have loved a piece of that grass. A green field is better than nothing — and much better than the weed-filled moonscape Cheltenham has now.

But Brink and her students want more than sod for schools such as Cheltenham. They envision learning landscapes that become landmarks, special spots where community pride can flourish and endure.

"You can't just stick in eight swings and make it green and say that's enough," she says. "It has to be a transformation. They've lived with so little for so long."

Great Grants and Initiatives

Grantor: **Gates Family Foundation**

Grantee or Initiative: **Learning Landscapes**

Period of Grant Award: **2003-2008**

Background

The 85 elementary schoolyards in Denver in the late 90's mostly consisted of vast stretches of asphalt and pea gravel, a few pieces of old play equipment and high fences that separated the school from the community. In most cases, the playgrounds in DPS elementary schools could only safely serve a few classes at a time. Recess frequently became the time for fights and injuries, not for exercise, learning or fun. Usually, the poorest neighborhoods had the worst schoolyards.

A new concept developed out of the College of Architecture and Planning at the University of Colorado at Denver (UCD). It involved transforming the elementary schoolyards into mini parks that served the school and welcomed the community after hours. Under the leadership of Lois Brink, a landscape professor, using her landscape architectural students, schoolyard designs were created for schools interested in a playground makeover, using graduate students with input from members of each school community. A model project at Bromwell elementary school that was funded by parents caught the attention of the Denver Public School District.

The Learning Landscape Alliance

At this point, with DPS on board, Brink approached the City of Denver and the Gates Family Foundation to consider expanding the concept to other schools, specifically those in the poorest neighborhoods of the city. Four partners – the City of Denver, DPS, UCD and the Gates Family Foundation created the Learning Landscape Alliance that would coordinate the planning, funding and construction necessary to improve 23 school- yards over the next 3-4 years. The design was coordinated by UCD with input from each school; the contracting and construction documents were managed by DPS; with the Gates Family Foundation as the coordinator, all the partners worked on the fundraising; and the school community, parents and students, pitched in to help with construction, e.g. laying down grass, planting trees and shrubs, etc. Each facility has a grass playing field, age-appropriate equipment, a shade structure, extensive plantings of trees and shrubs, an art piece unique to each school, special gardens for flowers and vegetables, and a welcoming gate to the neighborhood.

The Model

Over the next four years, 22 schools in 16 underserved or "Focus" neighborhoods in Denver received new schoolyards at an average cost of $450,000 per site. $9 million was raised by the Alliance. Alliance fundraising meetings were held monthly at the Gates Family Foundation office. School fundraisers, businesses, over 12 Colorado foundations, Denver's major sports teams, public entities such as Great Outdoors Colorado, and many individuals contributed to the initiative. Over 10,000 students, their school community and neighborhood benefitted from Alliance's efforts.

The Public Weighs In: 2003 and 2008 Bond Elections

In 2002, a Citizens Bond Committee identified learning landscapes the number two desired item for improvement in Denver Public Schools. Subsequently, the 2003 Bond was passed by voters, providing $10 million more for additional learning landscapes for 25 elementary schools that had applied for new schoolyards. The Alliance funded an evaluation of the learning landscapes, and discovered overwhelming evidence that they improved the school culture because of the various features that encouraged exercise, complemented the curriculum and attracted families after school and over the weekends. After recess, children returned to the classroom ready to learn, not agitated over a schoolyard scuffle. Vandalism was reduced sharply and when it did occur, students or parents identified the responsible party.

Predictably, the 37 elementary schools without learning landscapes continued to press the school district for new schoolyards, and in the 2008 Bond election, Denver voters approved $29 million more to finish all the DPS schools.

The Impact and Continued Momentum

The program has led to other innovations, including after-school programs in soccer, a gardening group that plants and maintains vegetable gardens that are integrated into school science and nutrition programs. Currently, over 21 public and private partners are involved in some way with learning landscapes. Major national foundations, including Robert Woods Johnson and Kellogg have provided follow-up support for health-related research such as obesity and nutrition. A major grant is pending with the National Institute of Health. Recently, the Learning Landscape program has been installing vegetable gardens in schoolyards across the district.

In the end, the public weighed in with over $39 million of support to finish what a small public-private partnership started and generated ($9 million). The beneficiaries include over 40,000 students from 85 elementary schools who use the facilities during and after school, their families and neighbors who protect and have access to the landscapes, and 160 graduate students who helped and were helped by the practical design experience.

Children, Youth and Environments.
Vol 14, No.1 (2004)
ISSN 1546-2250

Transforming Inner-City School Grounds: Lessons from Learning Landscapes

Lois Brink
Bambi Yost
University of Colorado at Denver

Citation: Brink, Lois and Bambi Yost. (2004). "Transforming Inner-City School Grounds: Lessons from Learning Landscapes." Children, Youth and Environments 14(1): 208-232.

Comment on This Field Report

Keywords: playgrounds, school grounds, urban gardens, youth participation, community participation, landscape architecture, urban planning

Introduction

In 1992, a group of parents, elementary school students, school staff and faculty members, neighbors, local businesses owners, and landscape architecture graduate students began a collaborative effort to transform the dilapidated playground at Bromwell Elementary School in Denver, Colorado, into a dynamic environment for learning. The result, unveiled six years later, was the first Learning Landscapes project in the city. Soon thereafter, professors of landscape architecture and their graduate students at the University of Colorado at Denver (UCD) began similar projects at other schools. Over the past decade, Learning Landscapes has evolved into a citywide urban initiative impacting dozens of schools.

The main objective of Learning Landscapes is to strengthen Denver's public elementary schools and their surrounding

neighborhoods by designing new multi-purpose school playgrounds that combine elements of a public park and a social gathering place. UCD landscape architecture graduate students and professors work with community members and school officials to design new school grounds that respond to the cultural makeup of the neighborhood, the aesthetic tastes of its residents, and the developmental needs of children.

Figure 1. Bromwell Elementary before and after Redesign

The success of the Learning Landscapes project is founded on a healthy enthusiasm for aesthetics, as well as a pragmatic approach to maintenance, safety and recreational issues. The principal value of a learning landscape is its multi-purpose nature. In an era of limited municipal resources and widespread gentrification, single-minded urban renewal projects that are forced on communities are neither viable nor sustainable solutions for community redevelopment. By bringing together diverse groups working in concert, a civic process— not just a project— is created. Graduate students provide design services to local communities while learning the value of civic responsibility, and community members engage in hands-on learning while designing, building, maintaining, and celebrating the Learning Landscapes.

While the main objective of this civic process is to reconnect communities with their public schools, a learning landscape playground and park also creates innovative avenues for participatory learning, increases recreational opportunities, and provides much needed green spaces in otherwise heavily urbanized neighborhoods. The learning landscape creates a site for learning and discovery that is fun and ultimately celebrates the cultural and historic character of each distinct neighborhood.

How Learning Landscapes Came About

The ability to transform Bromwell's renovation project into an urban initiative was dependent upon the convergence of four variables:

1. an aging elementary school infrastructure in Denver Public Schools;
2. elimination of court-mandated busing within the city;
3. a "new urban university mandate" that encourages UCD professors and students to work with city neighborhoods and communities;
4. city, state and non-profit funding as a catalyst for implementation.

Aging Infrastructure

Bromwell's schoolyard was not the only playground in Denver in need of major renovation– the average facility age is almost 50 years. In 2000, the grounds foreman for Denver Public Schools, Don Moon, stated that approximately 75 elementary schools required moderate to extensive renovations or upgrades. These included replacing playground equipment, providing irrigation and sod (to eliminate gravel and dirt fields), providing accessibility as directed by the Americans with Disabilities Act (ADA), and providing an outdoor learning environment.

Parents expressed concerns about the safety of many of these sites, including the lack of fencing, limited lighting and dangerous debris found on the school grounds. Many expressed the concern that the playgrounds were simply "asphalt jungles" unprotected from the hot sun and unusable during otherwise desirable play periods during the day.

Figure 2. Cowell Elementary Preexisting Condition

Elimination of Court Mandated Busing

In 1995, Denver Public Schools was released from a federally mandated school busing plan (Woods 1998). For the first time in 20 years, children could freely attend their neighborhood school. One of the goals of all Denver Public Schools is to open school facilities to the community– to provide places to gather, places to enjoy, and places that enhance the community's appearance (Denver Public Schools 2004). With the elimination of forced school busing in Denver, an unprecedented opportunity emerged to use these schools as catalysts to strengthen and reinvigorate historic neighborhoods. Rather than sit empty and

abandoned after school hours, as they did during previous decades, neighborhood schools could serve as landmarks and civic centers celebrating the cultural and historic character of each distinct neighborhood.

New Urban University Mandate

In the late 1990s, the University of Colorado at Denver established the principles of its New Urban University agenda:

1. connect the campus to the community;
2. integrate teaching, research and service;
3. become increasingly user-friendly.

In this academic environment, a synergism developed between Denver Public Schools (DPS) and UCD that resulted in a partnership to conduct master planning and create new designs for the city's elementary school playgrounds. Students in three courses in UCD's College of Architecture and Planning would use the 86 DPS elementary school yards as case studies. These courses focused on the value of the schoolyard as educational and community experience. The courses were sequential: theory and planning; design; and, finally, implementation and construction.

City Funding for Implementation

In the spring of 2000, Lois Brink, a professor of Landscape Architecture at UCD, received a $1 million matching grant from Denver's Housing and Neighborhood Development Services to assist in the construction of seven learning landscapes as part of the Denver Focus Neighborhood Initiative (City and County of Denver 2004). The Denver Business Improvement District's Regional Plan targeted 16 underserved neighborhoods for capital improvements to community facilities. It was the city's hope that improved overall physical environments would improve quality of life for neighborhood residents and attract new residents and improve property values (Mitchell 2001). The schools initially chosen to receive learning landscapes were located within the 16 focus neighborhoods. These schools have received "low" or "unsatisfactory" ratings in state scholastic achievement tests; close to 90 percent of the students are non-white; 93 percent qualify for free or reduced lunch; and

the average student mobility rate is 80 percent.

With the City of Denver grant as catalyst for collaboration, an entrepreneurial and community-based association of public and private interests was established– the Learning Landscape Alliance (LLA)– to fund and implement 22 learning landscapes. By leveraging city and district funds and community in-kind services the alliance could be aggressive and fully fund each project over a three-year period. (The average cost of a learning landscape is $450,000.) The 22 learning landscapes serve approximately 11,500 students. The alliance completed its mission in 2003 with a total investment of $10.8 million. Construction is 98 percent complete with the remainder being finished in the summer and fall of 2004 using funds from a DPS General Obligation Bond.

Learning Landscape Objectives

Each learning landscape serves two or more of the following objectives:

1. Provide participatory landscapes that support outdoor learning in tandem with academic and physical education and offer socialization tools for school-age children.
2. Create a multi-generational space for outdoor play opportunities for both students and the community.
3. Create an aesthetically pleasing focal point for the community.

The following is a composite list of all of the components of a Learning Landscape project:

· Common areas with trees, benches and chairs that range in scale from plaza to outdoor classroom.
· Improved hard surfaces for games, including basketball, tetherball courts, four-square, hopscotch, and wall ball.
· Natural and “wild” gardens characterized as habitat, grass, herb, riparian, ecological, native grass and/or rock gardens.
· Hard surface educational elements, including painted maps, sight words, mazes, educational games, a compass rose, and the like.
· Improved multi-purpose fields, prepared with gravel removal, weed removal, new sod, grading and irrigation.

· Traditional developmentally-appropriate play equipment
· Improved accessibility and safety with accessible equipment, ramps and pathways and other elements as specified in the Americans with Disabilities Act.
· Shady places, such as a shade pavilion and added trees to offer a cool alternative to wide-open play areas that receive full sun during the day.
· Community gateway
· Non-traditional elements for creative play and/or instruction.
· Design elements and ordering systems that reflect a specific design vision and build upon the neighborhood's strengths, history, culture and vision.

Participatory Landscapes for Outdoor Learning

Supporting the Academic Curriculum with Gardens and Landscape Features

Gardens offer experiential and prescriptive avenues for learning (Wells 2000). According to Susan Bardwell with Grounds for Learning (a partner program), learning landscapes offer places for children to wander and experience nature. Four categories have been developed for gardens at the schools:

· Horticultural
· Cultivated
· Ecosystem
· Habitat

Vegetable gardens create significant opportunities for students, especially those from low-income households, to learn about nutrition and healthy diets. In 1995, Tufts University researchers found that significantly larger proportions of poor than non-poor children suffer from substandard intakes of ten key nutrients. Between 33 and 50 percent of poor children have deficient intakes of key nutrients critical to cognitive functioning and overall healthy development. Poor children are 2.5 times more likely to have significantly deficient intakes of food energy/calories, folate, iron, magnesium, thiamin, vitamin A, vitamin B6, vitamin C, vitamin E, and zinc (Cook and Martin 1995).

In Denver, Bromwell, Whittier and Fairmont Elementary

schools have joined forces with the Slow Food organization to plant vegetable gardens. Additionally, teachers are using the gardens to develop hands-on learning techniques that support their lesson plans from the Integrated Nutrition Education Program (INP) currently being sponsored at their school by University of Colorado Health Sciences Center with funding from the USDA Food Stamp Nutrition Education program.

Figure 3. Bromwell Elementary Children at Their Fall Harvest

Approximately 75 percent of the learning landscapes have some type of an ecosystem garden. At Bromwell, where the Parent Teacher Student Association (PTSA) has an active role in the school, there is a tall/mid grass native prairie. Urban environments put an undue amount of stress on the establishment of native grasses in a semi-arid climate. It has taken three years to establish the grassland garden at Bromwell, and the PTSA is currently working jointly with UCD to petition the Environmental Protection Agency (EPA) to allow the school to burn its grassland– a mandatory practice to ensure a healthy prairie in Denver. DPS and the surrounding fire districts have approved the burn; the EPA, however, has denied the permit for air quality reasons.

The riparian landscape at Eagleton is a self-sustaining water-harvest garden that collects storm water from the surrounding playground and field to water native cottonwood trees and grasses. The water is filtered through this planted area before being released into a city storm water chase. Poor drainage is a chronic concern on DPS sites. The majority of these schools were built with either negative drainage or drainage towards the building. Riparian landscapes thrive in poor drainage and are an appropriate solution. In the past, Colorado riparian plants, such as cottonwood and willow trees, were on the DPS “do not plant” list. However, riparian landscapes have successfully improved drainage on the school sites. As they also grow and provide shade faster than other tree species, DPS has reconsidered their value.

Figure 4. Bromwell Grassland in the Spring

In most cases, the ecosystem garden provides a habitat for

urban wildlife. Riparian landscapes offer critical urban wildlife area opportunities while improving drainage on school grounds. The butterfly habitat garden, popular with teachers, provides an ideal setting for science lesson plans. Students can inventory the garden as a butterfly habitat, identify all existing plant species, determine which plants were useful as adult and larvae hosts, learn what butterflies might be attracted to the garden, and decide on features that need to be added to the garden to attract butterflies.

The school district does not have the staff necessary to maintain the gardens; therefore, it is very important that the design of the gardens reflect the capacity of the school to take care of them. The gardens must be sustainable and fully integrated into the elementary educational experience. Anecdotal comments collected to date from school teachers and community members express frustration because they want to take care of their gardens but do not know how. The implementation strategy for the learning landscapes held that it was better to build the landscapes first and then to work with the school and community to maintain them. This approach has been successful at Remington Elementary, where Learning Landscapes Alliance partner Susan Bardwell spent the spring and fall of 2003 working with two third grade classes in the school garden as part of an Earth Force service-learning project. She made the following observations:

> *In the process of tending the garden, the students did weeding and 'virtual bar graphing' of the weeds on the adjacent blacktop, seed collecting and companion lessons, and tree/garden mulching and companion lessons. Jan Wingate from Denver Botanic Gardens came out to identify some of the 'volunteer' plants/weeds and advise which should/could remain for habitat and which ones to be particularly vigilant about removing…. [The garden at] Remington demonstrates that there is a lot to say for teachers and students working and learning in the Learning Landscape as a way to help sustain the gardens. Without their work and lessons this past year, the fledgling garden at Remington would be a maintenance staff nightmare and an eyesore. It will be again if it*

doesn't continue to be 'used' by teachers and their students (Bardwell 2004).

Figure 5. Garden Place Butterfly Garden

Supporting the Academic Curriculum with Art Projects

Collaborative art projects conceived and created by students instill a sense of pride and ownership in school grounds and reduces incidences of vandalism (Yost, Di Carlo and Holmberg 2004). Each school has at least one art project as an initial element. The goal is to have a series of temporary installations that renew on a cyclical basis in an effort to sustain community involvement. The most successful to date has been the banner project. The canvases used for the banners, which last about three years, are inexpensive and readily available. Children decide on themes and make colorful weather-resistant banners that easily mount on vertical poles within the playground. They decorate their banners with bugs, the solar system, sports, common words, dinosaurs, or flags from different nations around the world. At Cowell elementary, an after-school group participating in the Denver Scores program wanted to do a mural as their service learning project. Children worked with their teacher and UCD students drawing images that were important to them, to Denver, and to the soccer community. UCD students created a collage of these drawings and then, using a grid system, transposed and painted the drawing with help from the children onto a 100-by-5-foot wall.

Figure 6. Computer Image of Cowell Denver Scores Mural

The participation of local artists is a successful way to incorporate place-sensitive public art into the school ground and offer art education. At Fairmont Elementary, local artist Tony Ortega worked with the children to create their banners. At Columbine elementary, artist-in-residence Michael Gadlin helped the children create entry banners for the doors leading out to the playground. Local artists also design and construct their own pieces inspired by the children. At Fairmont, a concrete "earth mother" is located in the middle of the play equipment area and teachers have mentioned that children are often seen taking solace in her

lap when they have had a bad day.

Larger murals painted on the walls of some schools are civic in scale and serve as a landmark for the community. Smith elementary is a magnet school for the arts; students and artists worked together to paint a theater backdrop on one wall of the school. The budget did allow for an actual outdoor theater, so the 40-by-30-foot mural serves as the backdrop for a pretend stage, complete with curtains and scenery. The mural is a one-point perspective with lines radiating out from the vanishing point across the entire playground. The school's Word Wall mural, measuring 40 by 50 feet, includes 100 of the most commonly used words in the English language and acts as a backdrop for wall ball. For this mural, conceived by UCD landscape architecture students, the children created shapes and chose text types to match the words. Third through fifth grade children painted the mural with guidance from UCD students, high school students, and a local artist. Wall ball becomes more challenging and interesting for children as they try to hit certain words.

Figure 7. Students from Smith Elementary Painting One of the Murals

Supporting the Academic Curriculum– Next Steps

When surveyed by the Center of Research strategies, 97 percent of the teachers at Learning Landscapes schools agreed that the playground has improved the beauty of their community; however, teachers were more neutral about educational enhancements. This may reflect the fact that in most of the schools, the playgrounds have been in place for less than two years— a relatively short period of time for curriculum changes to be made. A three-year Technical Assistance Program (TAP) established by UCD, DPS, and the Gates Family Foundation provides assistance to teachers for program development, curricular use of playgrounds, and continued service-learning opportunities. Teachers and students are being trained to maintain the playgrounds with help from TAP interns. This program serves multiple purposes. The TAP sets up a framework for a four-step process, the purposes of which are outlined in a 1990 environmental education study by Hungerford and Volk,

namely, to increase teacher' and students' sensitivity, knowledge, ownership, and empowerment in an effort to create sustainable learning landscapes with continued community support.

Design opportunities for education vary from school to school. Boulders indigenous to Colorado, including igneous, sedimentary and metamorphic rocks, engage students in the geology of the region. Geography and the use of maps has been a consistent component. Principals have expressed a desire to include science and math components into the playground features through elements that incorporate measurement concepts.

Supporting Physical Education

The preexisting conditions at the Learning Landscape project schools were "one-size-fits-all" playgrounds. Young children often used equipment intended for use by older children. Classroom teachers were required to schedule specific times for using the playground, ensuring that pre-kindergarten students were not placed in danger by being in the same play environment as older students.

Effectively designed playgrounds can decrease "uninvolved behavior" and reduce bullying or roughhousing (Weinstein and Pinciotti 1998). Guided and free play on outdoor equipment helps children of all ages develop their muscles, define their sense of space, develop eye-hand coordination, increase body awareness, increase physical fitness skills, develop strength and endurance, and provide opportunities for social play (Moore, Goltsman and Iacofano 1997).

When given a choice between structured and unstructured physical activities, children will typically find fewer opportunities for confrontation with their peers (Boulton 1999; Malone and Tranter 2003). Principals have observed that children learn to interact and problem solve more effectively on a structured playground. Learning landscapes dramatically increase the variety and quantity of structured games available to children. The playground helps teach children to function in a structured environment (Center of Research Srategies 2003).

Additionally, the learning landscapes increase play opportunities and accommodate the entire school population at one time— an important consideration for the hours before and after school. This stands in sharp contrast to an average pre-existing capacity of only five percent of the school population at one time. Structured games on grass and hard surfaces are complemented with traditional age-appropriate play equipment. Play equipment for early childhood education (ECE) focuses on fine- and gross-motor development and includes interactive elements such as sand or water play, along with three different ground surfaces. Given that Denver typically receives more than 300 days per year of sunshine, shade structures are another important element of the program.

Children surveyed during the master plan phase consistently selected play equipment as their first- and second-favorite choices (Brink et al. 2004). Primary play structures emphasize the relationship between play and imagination, incorporating interactive pieces and slides. Climbers, also known as monkey bars, provide physical challenge, and intermediate structures emphasize climbing and upper body development. Overhead ladders, tall slides, large climbers, and spinning or rotating activities foster development of motor skills, strength, coordination and balance. Climbing opportunities often provide graduated levels of challenge and encourage responsible risk taking.

Improving Socialization Skills

Demographics in the United States have changed dramatically over the last 50 years since most of Denver's schoolyards were built. Children in urban environments once had greater freedom to move about and explore unprogammed places (Hasluck and Malone 1999). Increased violence in urban areas now means that children have less freedom of movement (Tranter and Doyle 1996; Valentine and McKendrick 1997). The Learning Landscape project has responded by creating unprogrammed non-traditional elements that encourage creative play. As mentioned above, habitat gardens offer wild places where children can experience the "slow wonder" of our world. For example, brightly colored fields of paint at Garden Place Elementary provide an unlimited resource for the imagination– at one

moment they are countries to be conquered, the next, islands in the ocean. Different colored curvilinear lines at Barrett Elementary randomly bisect basketball and foursquare courts and become paths, upon which children can travel anywhere the imagination takes them. “Struggle Hill” at Smith Elementary and the erosion hill at Garden Place offer different perspectives. Of the teachers surveyed, 80 percent agree that the new playground promotes creative play (Center of Research Strategies 2003).

Figure 8. Children Play on Garden Place's Erosion Hill

Recess is quite often the only time a child has total control of his activities at school. Playgrounds offer the optimal environment for children to socialize and learn about conflict resolution. Principals and teachers at Learning Landscapes schools have observed diminished fighting over limited play elements, and children are more physically active and engaged in more positive peer interaction (Center of research Strategies 2003). Different play zones and social areas in the schoolyard encourage children to disperse, thereby giving everyone a place with fewer conflicts.

Scale and elevation are key elements in the design of these places. Subtle changes in elevation are all that is needed to create prospect; this can have a dramatic effect on children. Children are drawn to spaces that are compatible with their size. Spaces that are visible to the playground aides but intimate to children are particularly attractive. At Bromwell, a large boulder next to a pine tree on a hill has all the elements of an ideal intimate gathering place. Sitting under the deck of play equipment or between the columns of a shade structure provides the same small scale preferred by children but still easily monitored by teachers or family members.

In addition, the use of boulders in gardens and throughout the playground has been a positive cost-effective element. Surveys conducted at 40 DPS elementary schools show that boulders are one of the top five preferred playground elements by 90 percent of respondents (Brink et al. 2004). The preferred boulder size is five to seven tons. This allows for two or three children to gather, while still allowing a fourth child to comfortably sit alone and read.

Figure 9. Young Girls Socializing at Greenlee Elementary

Community Focal Point and Civic Pride

Schools in their pre-Learning Landscape condition sent a message to the neighborhood that the environment for children and the community was not a priority. Chain link fences and obscure entrances sent the signal “DPS property. Keep Out” (Center of Research Strategies 2003). Some communities, disenfranchised from their local school, may have few if any other architectural landmarks that can serve as a source of civic pride. School buildings were constantly vandalized and whenever minor improvements were made to the playgrounds, vandalism followed soon thereafter (Yost et al. 2004). Neighborhood organizations and the schools’ administrations wanted to strengthen the community spirit, but given their challenges, the prospect seemed daunting if not insurmountable.

Learning Landscapes improve community outreach in the following ways:

· Community input during the master plan and design phases of the process
· School/community fund-raising to support the playground
· Community support during the construction of the playground in the form of volunteer builds
· Creating designs that:

    o Encourage use after school and during vacation periods
    o Include community gathering places
    o Enhance the sense of green space in the neighborhood

A collaborative process for planning and design incorporates community input into all phases of the project, and creates a broadly constituted base for funding that includes both public and private partners. Community involvement is a foundation of this program; it fosters a sense of neighborhood ownership and vision (City and County of Denver 2004). UCD landscape architecture students participate in meetings with focus groups of students, parents, staff and administrators at each school to identify

elements for the proposed site development. Elementary school students create drawings of what they would like and parents and teachers discuss problems with the current playground. A photo survey of 19 images of possible schoolyard elements serves to solicit initial community/school preferences and encourage everyone to "think outside of the box." By asking constituent groups to select their five preferred elements, UCD students are able to prioritize components for the master plan and generate a list of community needs and desires.

Figure 10. Student Drawings

Principals surveyed recommend bringing the community into the process even earlier (Center of Research Strategies 2003). However, UCD graduate students observed that it was difficult to get early participation due a general level of mistrust from community members that the project would ever be implemented and a concern about the risks of neighborhood vandalism. Once the master plan is complete, it is distributed to the schools and community for review and comments.

At the onset of the project, the Learning Landscape Alliance solicited support from the school and community to raise two percent of the total funds for the project. Penny drives and selling candy bars were just some of the strategies that empowered students and gave the project a sense of reality and immediacy. Students consistently reported during focus groups that they felt good about having helped create the playground (Center of Research Strategies 2003).

A similar reaction came from the community once construction was underway. The results of a community survey indicated that 23 percent of community residents had participated in the construction of their school's playground (Center of Research Strategies 2003). Projects are always built during the school year so that children and families can be involved. Volunteer dates, established during construction, draw people from the school community and other volunteer organizations such as AmeriCorps, Peer One, Hope Communities, church groups, and neighborhood associations. On average, eight percent of the total project funds are in-kind contributions from the community, the city

and volunteer organizations. Each year, a team of AmeriCorps volunteers has spent six weeks building play equipment, helping children with art projects and planting. Community builds have been an essential element as more than half of the city and grant funding requires community interaction. Each project has two to four volunteer builds organized jointly by UCD and DPS, ranging from 50 to more than 250 people. Typically, the community creates artwork, plants gardens, lays sod, moves engineered wood fiber into play pits, builds playground equipment, and lays bricks. Close to half (43 percent) of the participants say that they are more involved with other school activities that involve the playground than they were before (Center of Research Strategies 2003). The principal of Colfax Elementary School said, “the builds are a wonderful way to bring parents into the school, particularly when language is a barrier.”

Figure 11. Volunteer Build Laying Sod at Swansea Elementary

Unlike traditional schoolyard designs, learning landscapes are designed as multi-generational places. Social gathering places designed for school children become community spaces during non-school hours and are used extensively on summer evenings. The shade structure/pavilion acts as a community landmark as well as gathering place and typically offers an excellent vantage point for teachers, parents and grandparents alike to observe children.

Figure 12. Shade Structures at Colfax and Crofton Elementary Schools

Community surveys validate these findings with a 77-percent agreement that the community has a sense of pride in the playground. Further evidence of community support for the Learning Landscapes project was the allocation of $10 million for completing another 20 learning landscapes as part of a $300 million dollar general obligation bond (GOB) that received overwhelming voter approval in the fall of 2003.

University Role

Initially, UCD played a neutral role between the city and the

school district, which shared a skeptical past relationship with the city and had limited collaboration. The University was an advocate for grantees ensuring that funds were spent appropriately. The University's optimism and confidence was pivotal in generating other public and private funding. The relationship between UCD and DPS goes beyond the 22 schools involved in the Learning Landscape Alliance. To date, UCD graduate landscape architecture students have developed 54 master plans and have prepared 25 sets of design development drawings. At this rate, UCD students will complete the remaining 24 DPS elementary school master plans by 2006.

A year-round, hands-on, service-learning curriculum at UCD enlists graduate students to develop master plans in the fall and design documents in the spring. UCD students prepare master plans comprised of five main components:

1. a vision
2. a set of goals to implement the vision
3. a program of uses
4. a spatial relationship diagram
5. an aesthetic ordering system

The master plan targets existing and proposed uses, relationships between uses, and programmatic requirements for uses, maintenance and safety issues, and preliminary cost estimates.

Once the master plan is complete, the graduate landscape architecture students participating in the Learning Landscape Alliance program move into a design studio where they synthesize the pieces of the master plan into a detailed site design, identifying cost estimates for traditional and non-traditional construction. The end product for the studio is a set of design development drawings. Professional landscape architects are selected to finalize the graduate student's drawings in the form of construction documents. In the summer, students gain valuable experience in independent design-build classes at DPS schools under construction. The construction of the traditional elements of each project goes through the normal bidding process, while the creation of the non-traditional elements are coordinated by DPS and UCD jointly.

The originality and forward-thinking aspects of each Learning Landscape project are directly attributable to the UCD graduate landscape architecture students. They have contributed their time and energy, and have been inspired by the uniqueness of the people and their environments to create unique places. Their ideas and inventions have been a source of inspiration for the professionals executing these designs. AmeriCorps provides tuition grants to UCD students through the Campus Compact Initiative focused on collegiate level service-learning, community-based programs.

Figure 13. Graduate Student Stamping Numbers in Concrete

As Learning Landscapes continue to be built with GOB funding, UCD will continue to provide design review assistance. The main focus of Professor Brink's research will be the long-term sustainability of these urban landscapes and their integration into the day to day rituals of schools and neighborhoods. Learning landscapes are generally outside the realm of traditional DPS site maintenance. UCD and DPS have entered into a three-year technical assistance program (TAP). This program will work with the site-based facility managers and the children to:

· Provide maintenance support and technical assistance to site based personnel
· Offer an awards program for site maintenance success
· Assist with program development of curricular use of playgrounds
· Expand service-learning opportunities for the school/community through the Denver School Yard Consortium.
· Actively seek funding and grants to support programs.
· Continue data collection and surveys to document outcomes.
· Develop programs to monitor and document increasing levels of physical activity, improved social behavior and test scores.

Lessons Learned

The Learning Landscape program at DPS is a dynamic process that is evolving. The hope is to review, evaluate, and modify the process improving on the positive outcomes.

Positive benefits of the playgrounds were reported by the Center of Research Strategies (CRS) in the following areas:

· Reduced safety and disciplinary problems
· Improved student behavior
· Increased use of outdoor learning curricula
· Improved student attitudes toward school and increased readiness to learn
· Increased parental involvement
· Enhanced community pride and use of the playgrounds as "green spaces"

Enhancing Community Involvement and Creating Buy-In

The weakest aspect of community involvement to date has been during the planning phases. We believe tours of built learning landscapes would help community members, teachers, and principals visualize the desired outcomes. Principals who are committed to the project are key to increased community support and awareness. The graduate students' master plan is the first step in the process. Community comment and criticism are welcome, but have not always been incorporated into the design development drawings. Brink and her students have revamped the master plan as a living document containing folders for comments from community/school and the DPS grounds and maintenance department. As graduate students and other design professionals move into the design phase, these comments can be incorporated into the design.

Volunteer builds are the most positive outcome for community involvement. All 22 schools have agreed to continue having some type of volunteer project in the spring and the fall each year. The technical assistance program will aid in establishing activities as regular events within the calendar year. Ongoing builds will include adding street trees, murals, and artwork, and modifying design elements to increases effectiveness.

Another way to enhance community participation is to study the post-occupancy evaluation of the schoolyard by teachers and parents. Providing them with the tools to let elements evolve and change to suit their needs is an essential part of the technical assistance program and the long term

sustainability of the program.

Increasing Teacher Involvement

One of the weaker aspects of the current process is that the time constraints and pressure to improve student test scores impedes teachers' ability to fully participate in the process of creating a learning landscape. To remedy this situation, funding is necessary for release time that allows teachers to leave the classroom and lets them freely brainstorm possibilities. Release time will be a critical element as Learning Landscapes designers and researchers move into curriculum development at each school.

After School

Fortunately, the 2003 General Obligation Bond, approved in the fall of 2003, has enabled DPS to reinstate art teachers and programs at virtually every school. With the added assistance of these new DPS art teachers, the children will be able to create new art projects that will enhance learning landscapes.

In conclusion, the Learning Landscapes project provides ongoing lessons for everyone involved. Through increased faculty, student, and community awareness and participation, the school grounds evolve. The collaboration of faculty and students at UCD with DPS teachers and students, as well as parents and other community members, allows constant learning and growth for all involved.

Lois Brink *is a tenured faculty member of the University of Colorado's College of Architecture and Planning in the Department of Landscape Architecture. She received her masters of landscape architecture from the University of Pennsylvania's graduate school of fine arts in 1978. Prior to joining UCD, professor Brink spent ten years in private practice in Philadelphia and Denver. During her 15 years at UCD she spent five years as department chair of the landscape architecture program. Her research interests have spanned a diverse array of landscape issues including mine land reclamation, new community development, and ecological design. Learning landscapes have been her primary research during the past five years.*

Bambi Yost *is a dual degree graduate student at the University of Colorado at Denver studying Landscape Architecture and Urban and Regional Planning. For the past two years, she has planned, organized, and led community-based design-build Learning Landscape projects. Prior to that, she was a career advisor at the Art Institute of Colorado and an educator for the Chesapeake Bay Foundation in Virginia where she designed and led environmental programs. Ms. Yost has an extensive background in outdoor education, volunteer coordination, grant research and writing, and nonprofit programs. She is currently conducting studies to further evaluate the Learning Landscapes.*

References

Bardwell, Susan (2004). "Notes on Remington Elementary School's Learning Landscape and Grounds for Learning Curriculum." Paper presented at the Learning Landscape Alliance Meeting, January. Denver, CO.

Boulton, M.J. (1999). "Concurrent and Longitudinal Relations between Children's Playground Behavior and Social Preference, Victimization, and Bullying." *Child Development* 70(4): 944-954.

Brink, Lois and Bambi Yost (2003). "Denver Public Schools Learning Landscape Maintenance Evaluation, 20-Year Cost Projections, and Timeline Report." Paper presented at a meeting of the Learning Landscape Alliance and Denver Public Schools Facility Management, June. Denver, CO: University of Colorado at Denver, Architecture and Planning Department, June.

Brink, Lois, Willem Van Vliet-, Bambi Yost and Jon Webb (2004). *Learning Landscape Photo Surveys- Initial Composite Study Spring 2004*. Denver, CO: The University of Colorado at Denver and the University of Colorado at Boulder, Architecture and Planning.

Center of Research Strategies (2003). *Evaluation of the Learning Landscape Project.* The Learning landscape Alliance and The Gates Family Foundation.

City and County of Denver (2004). "Focus Neighborhoods Initiative Report 2003." Housing and Neighborhood Development Services- a Division of Community Planning and Development. Retrieved January 2004 from http://denvergov.org/Focus_Neighborhoods/default.asp

Cook, John T. and Katie S. Martin (1995). *Differences in Nutrient Adequacy Among Poor And Non-Poor Children.* Tufts University School of Nutrition- Center on Hunger, Poverty and Nutrition Policy.

Corson, Cheryl (2003). "Grounds for Learning." *Learning by Design, A School Leaders Guide to Architectural Services.* National School Boards Association. Retrieved August 8, 2003, from http://www.asbj.com/lbd/2003/grounds.html

Denver Public Schools (2004). "Community Relations." Retrieved January 2004 from http://communityrelations.dpsk12.org/

Hasluck, L. and Karen Malone (1999). "Location, Leisure and Lifestyle: Young People's Retreat to Home Environments." In Shehan, C., ed. *Through the Eyes of the Child*. Connecticut: Jai Press.

Hungerford, H. R., and T.L. Volk (1990). "Changing Learner Behavior through Environmental Education." *Journal of Environmental Education* 21(3): 8-21.

Malone, Karen and Paul Tranter (2003). "Children's Environmental Learning and the Use, Design and Management of Schoolgrounds." *Children, Youth and Environments* 13(2). Retrieved from http://colorado.edu/journals/cye

Mead, Margaret (2001). *Continuities in Cultural Education, rev ed.* Piscataway, NJ: Transaction Publishers and Rutgers University.

Mitchell, Jerry (2001). "Business Improvement Districts and the 'New' Revitalization of Downtown." *Economic Development Quarterly 15:124-131.*

Moore, Robin C., S.M. Goltsman and D.S. Iacofano

(1997). *Play for All Guidelines: Planning, Design and Management of Outdoor Play Settings for All Children* (2nd edition). Berkeley: MIG Communications.

Moore, Robin C. (1986). *Childhood's Domain: Play and Place in Child Development.* Dover, NH: Croom Helm, Ltd.

Weinstein, C., and P. Pinciotti (1988). "Changing a Schoolyard: Intentions, Design Decisions, and Behavioral Outcomes." *Environment and Behavior 20: 345-371.*

Wells, N.M. (2000). "At Home with Nature: Effects of 'Greenness' on Children's Cognitive Functioning." *Environment and Behavior 32(6): 775-795.*

Woods, Katherine (1998). "Park Hill." *Cityscape: A Journal of Policy Development and Research 4(2): 5-11.*

Yost, Bambi, Sonia Di Carlo, and Jon Holmberg (2004). "Spatial Analysis of the Learning Landscape Initiative's Impact on Graffiti in Denver Neighborhoods and on Denver's Public Elementary School Playgrounds." Paper presented at a meeting with Denver Public Schools and the Learning Landscape Alliance, May. Denver, CO: University of Colorado at Denver, Architecture and Planning Department.

Playground expanded to 'learning landscape'

Johnson's new area includes colors, maps, vocabulary, outdoor classrooms

BY JOSHUA COLE

On a tour of the new playground at Johnson Elementary School, as third grader Elmer Monarrez stopped next to a group of tables under a canopy, he wasn't thinking of playing.

"We can do homework club here," Monarrez said.

Part of the $450 million school bond that Denver voters passed in 2008 is completing "Learning Landscapes" at elementary schools across the city. The learning landscapes are like super playgrounds with learning elements in them.

The playground equipment – the slides, monkey bars, swings and everything around them – have specific purposes to increase coordination and build strength. Four-square boxes are painted with vocabulary, with each game a group of similar words: at Johnson, one has types of sports equipment (volleyball, basketball, skateboard and bicycle) and another includes words where a letter preceding an "n" at the start of the word is silent (gnome, gnat, knee and knight). Some schools have a map of the world while others have the states painted.

And it's a place to take classes and work. In addition to the tables that can be used to do homework in warmer weather, stone benches form crescents around the perimeter of the playground.

The playground equipment was built in the summer of 2008, and everything else was added this year.

On Oct. 23, students, staff and district administrators unveiled Johnson's new playground. Wearing a shirt and tie, Monarrez led students and staff in a pledge: "We promise to take care of our new playground. We promise to follow the High Fives. We promise to play a lot."

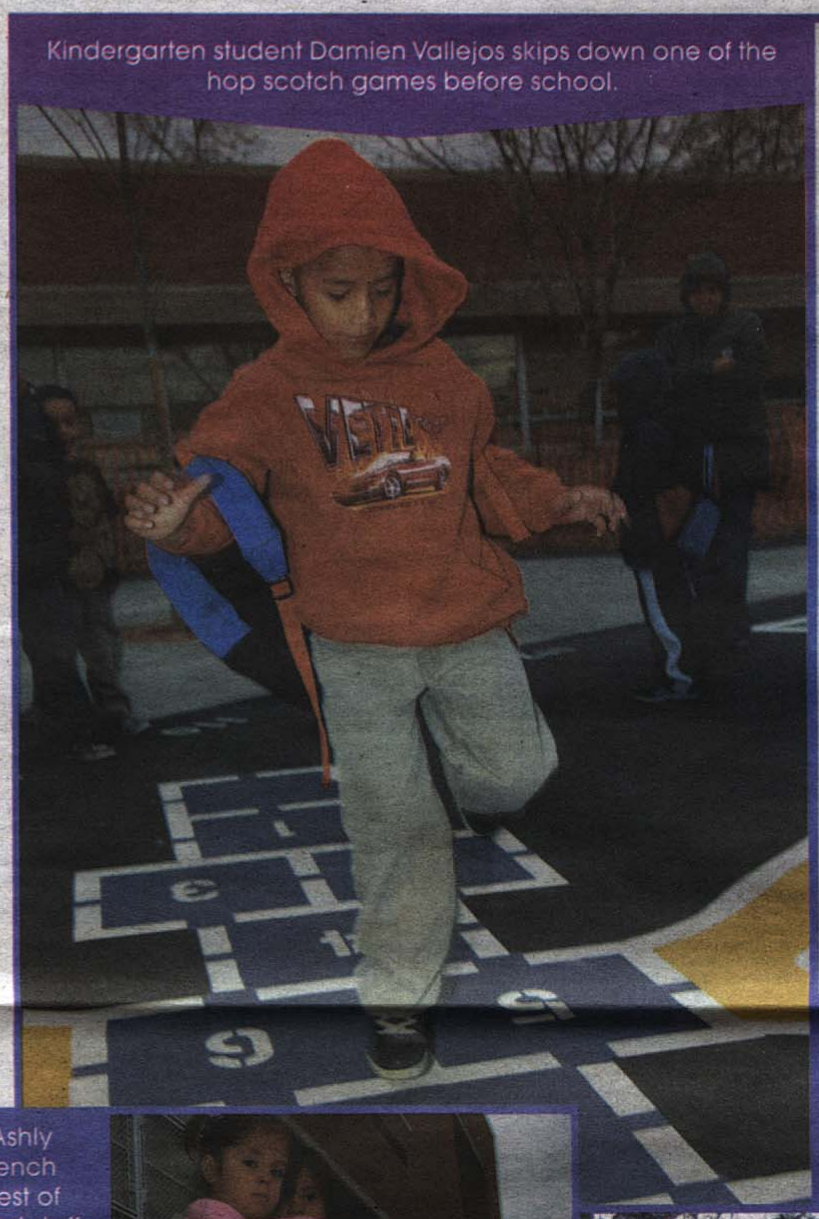
Other things included in the learning landscapes are a grand entrance with trees, bushes and paths created with different materials; benches or tree boxes that are decorated with tiles that students and teachers painted; and a community garden. One part of the playground is suited just for pre-school children. Instead of four-square boxes, they have two-square boxes. A concrete tricycle path surrounds the playground equipment.

At Johnson, banners hang from poles throughout the playground with examples of good behavior and the school's five major values. Monarrez painted a banner of a child throwing trash away, a picture that represents being respectful. Next to his banner, a girl sits quietly, facing forward, her materials placed neatly at her desk, representing focus on learning.

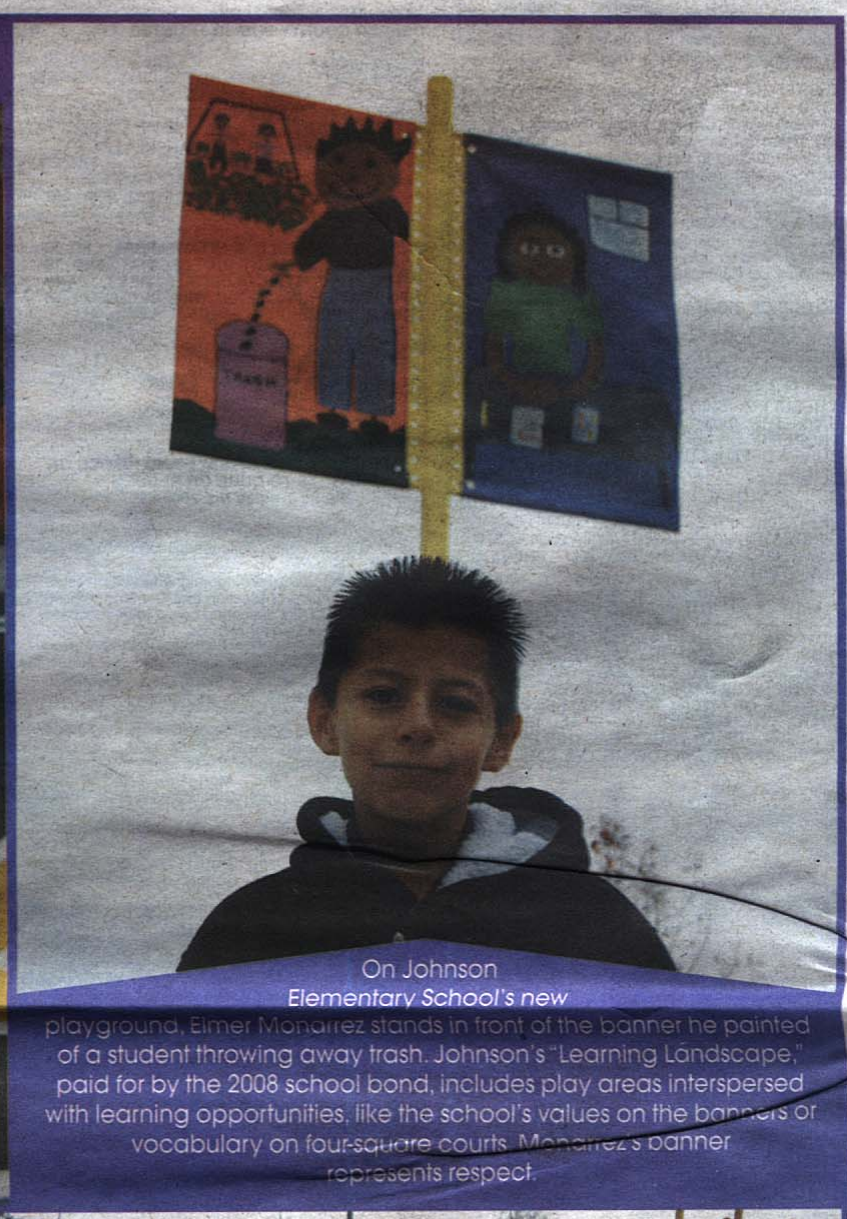
With all of the bright colors, vocabulary, numbers and physical training areas, the learning landscape is still just a big playground that's been refurbished. Grass replaces gravel fields. Monarrez's favorite part of the playground is the repaved basketball court.

"The other court was a little bit bumpy, so we fell down a lot," Monarrez said. "Now that we have a flat one, we play on it a lot."

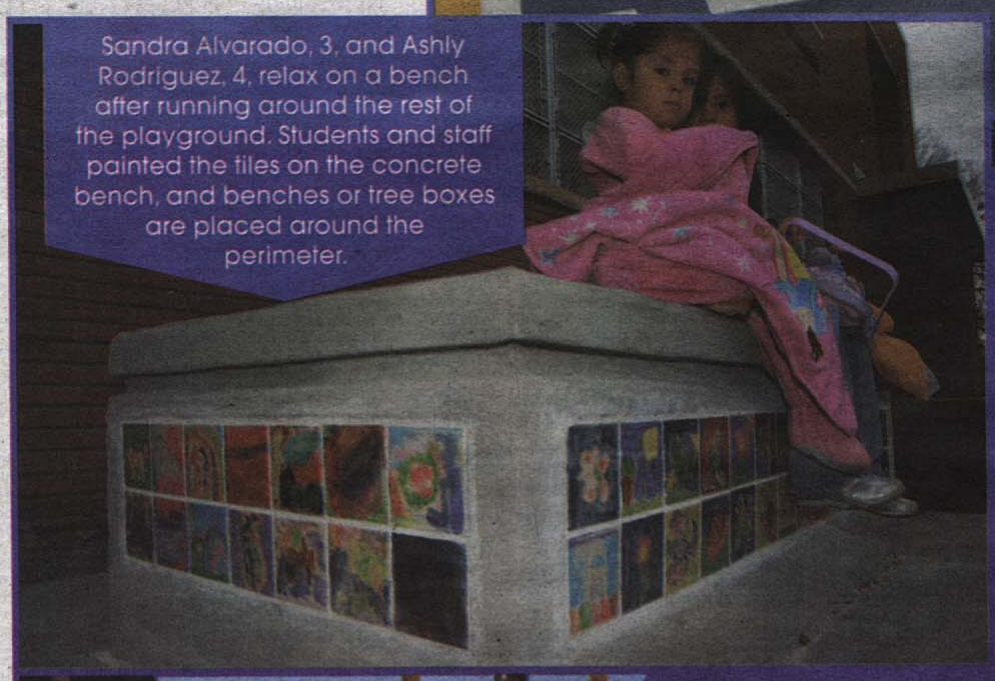
josh@villagerpublishing.com



Kindergarten student Damien Vallejos skips down one of the hop scotch games before school.



On Johnson Elementary School's new playground, Elmer Monarrez stands in front of the banner he painted of a student throwing away trash. Johnson's "Learning Landscape," paid for by the 2008 school bond, includes play areas interspersed with learning opportunities, like the school's values on the banners or vocabulary on four-square courts. Monarrez's banner represents respect.

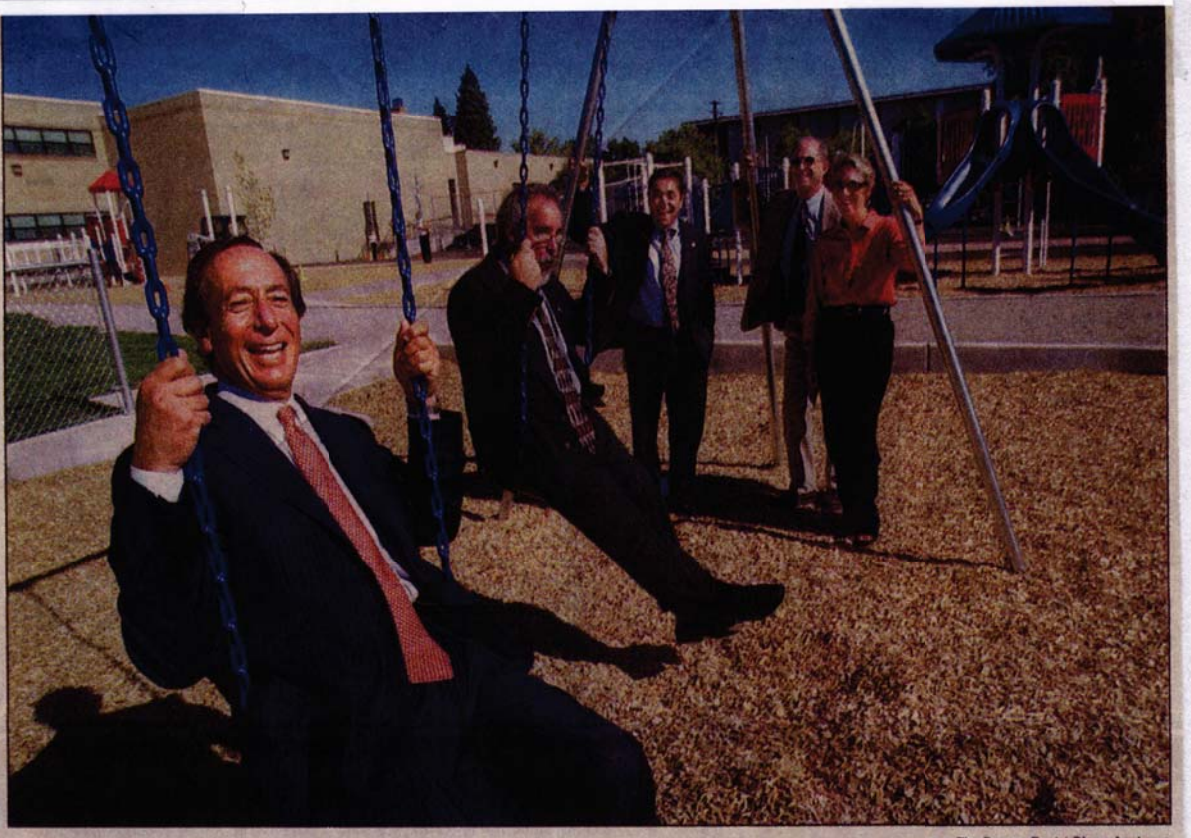


Sandra Alvarado, 3, and Ashly Rodriguez, 4, relax on a bench after running around the rest of the playground. Students and staff painted the tiles on the concrete bench, and benches or tree boxes are placed around the perimeter.

The Learning Landscape isn't only for students: Sara Salazar, Clavelinda Rodriguez and Ashly Rodriguez, 4, sit on a bench near the entrance of Johnson's playground. The entrance has trees, bushes and different materials for different paths.

A student flies down the slide in the summer of 2008, shortly after the playground equipment area was built. Playground equipment is geared toward building upper and lower body strength.
File photo by Joshua Cole

Students can do homework on tables under the canopy and take a break by playing on the rest of the playground.
Photos by Joshua Cole



The Denver Post / Glenn Asakawa

Steve Farber, left, and Ron Bernstein, also on swing, first met as students at Colfax Elementary. Decades later, the pair helped raise money for new playground equipment for Colfax and other schools in low-income neighborhoods.

Playground project swings high

Schoolyards get new equipment, turf

By Cindy Brovsky
Denver Post Staff Writer

Fifty years ago, Ron Bernstein and Steve Farber played baseball on a dirt lot near a couple of swing sets at the Colfax Elementary School playground.

Generations of students sat on the same rusted swings and often received scraped knees from the broken asphalt and gravel.

Today, the once-neglected lot in west Denver has been transformed with brightly colored playground equipment and lush turf through a partnership between Denver Public Schools, the city, the state, private foundations and alumni.

"Until six months ago, this playground was exactly the same as when I was a kid," recalled Farber, a Denver attorney. "The improvement is unbelievable and well-deserved for these children."

Farber and Bernstein, director of the Mayor's Office of Economic Development, joined the ambitious project to replace outdated playgrounds at elementary schools in 23 low-income neighborhoods.

Mayor Wellington Webb first learned of the poor condition of the Colfax playground through a letter-writing campaign by students. When he visited the school, Webb was impressed with the $800 in coins raised by the students to start the work on the playground.

The Colfax playground is part of the $9.8 million project citywide. Last year, supporters who call themselves the "Learning Landscape Alliance," quietly replaced nine playgrounds.

The goal is to complete seven more playgrounds this year, and an additional seven in 2003. Each playground costs $400,000 to $500,000, including equipment, ir-

Please see PLAY on 3B

Project gives schoolkids new places to play

PLAY from Page 1B

rigation systems and turf.

The city donates $700,000 to $900,000 to the project each year through federal grants. The state's share comes from Great Outdoors Colorado lottery proceeds. DPS is responsible for maintenance of the playgrounds.

"We have so much more fun this year because we don't just have the boring old equipment," said Marrisa Aguilar, 8, a fourth-grader at Colfax. "We never had grass before and a lot of kids used to get hurt when they fell."

Marrisa and her classmates painted tiles that will decorate shade covers near the playground.

Physical education teacher Tom Barela said the new playground helps the kids' overall attitude about school.

"Just think if you went to work where the air conditioner was broken and the furniture was old," he said. "It would be harder to get your job done. The same thing is true of kids. They now have the proper equipment to enjoy themselves and take pride in."

Principal Mary Romero agreed. "All that you have to do is look at their smiling faces to know what this means to them," she said.

The playgrounds are designed by graduate students at the College of Architecture and Planning at the University of Colorado at Denver. Neighbors and students at each site help plant the turf and trees. Some of the playgrounds include education centers with butterfly gardens.

"This is not just about replacing a playground, but making the schools a community gathering place for the neighborhoods," said Lois Brink, an associate professor overseeing the designs.

The Gates Family Foundation began spearheading the fundraising after hearing about a playground replacement effort at Garden Place Elementary School in Globeville. Principal Alvina Crouse, who has since retired, donated $10,000 of her own money to get the project started.

"We think it's unprecedented for a city and school district to work with foundations and the business community to have multi-use playgrounds for the community," said Tom Kaesemeyer, executive director of the Gates Foundation.

The foundation gives $50,000 per playground. Also pledging $50,000 are the Denver Broncos, Colorado Rockies and Kroenke Sports, owners of the Denver Nuggets and Colorado Avalanche. Other large gifts from school alumni, businesses and other foundations range from $2,500 to $25,000.

The alliance still needs $130,000 to complete the seven playgrounds this year. Supporters also hope the downturn in the economy won't jeopardize the remaining seven playgrounds scheduled for next year.

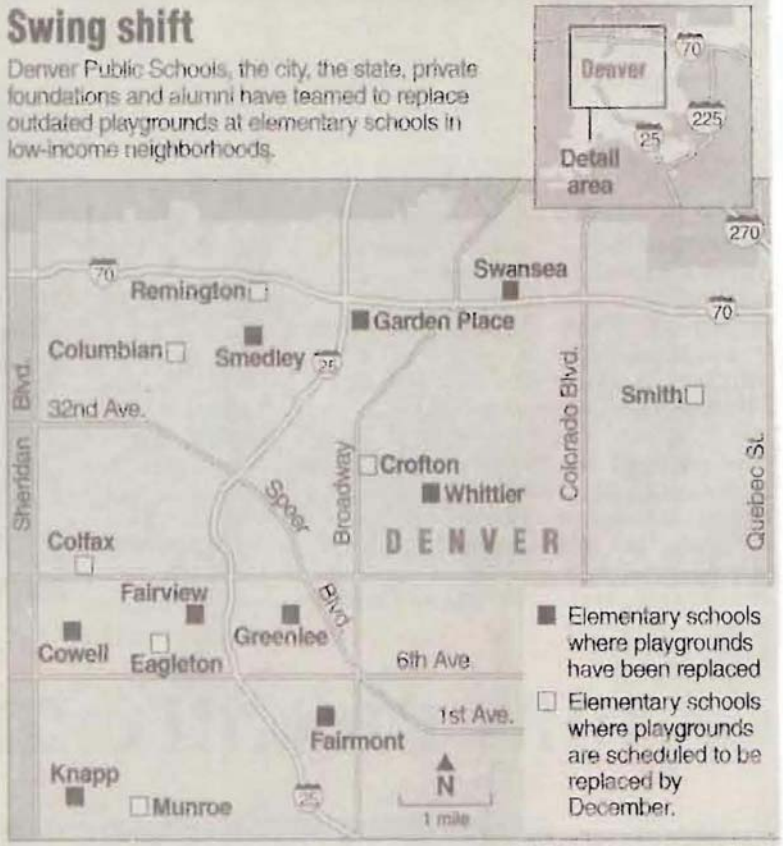
"These kids now have a place to play that has grass, which many don't have in their own back yards," said James Mejia, a DPS board member and manager of Denver Parks and Recreation. "We have several projects under our belt and we're hoping it will be hard for people to say no to continued funding when they see the positives of this project."

Swansea Elementary School assistant principal Rodney Fernandez understands the impact of the program.

"The old playground was pretty depressing," Fernandez said. "This new playground has become a centerpiece for our community. Because we built it together, there is a sense of pride among the parents and students that this is their playground."

Swing shift

Denver Public Schools, the city, the state, private foundations and alumni have teamed to replace outdated playgrounds at elementary schools in low-income neighborhoods.



The Denver Post / Thomas McKay