



**ARIZONA  
FORWARD**

## **The Grand Central Learning Center Project**



**A Collaborative, Community Based Project lead by Arizona Forward in collaboration with the  
ASU GIOS Sustainability Science for Sustainable Schools Program and SRP**

**In partnership with**

**Central High School, Brophy College Preparatory School, Xavier College Preparatory School  
and St. Francis Xavier School**

**March 2014**

# **A Framework for Guiding the Development of the Grand Central Learning Center**

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and



*This project was funded under a 2013 National Fish and Wildlife Foundation Grant and a Wells Fargo grant for matching support in 2014 with ASU and SRP as in-kind partners*

## **1. Introduction**

Representatives from Arizona Forward, the Arizona State University (ASU) Global Institute of Sustainability (GIOS) Sustainability Science for Sustainable Schools Program (S4) and Salt River Project (SRP) met with representatives from Central High School, Brophy College Preparatory School, Xavier College Preparatory School and St. Francis Xavier School in summer 2012 to discuss initial concepts for the Grand Central Learning Center Project. Work on the project began in earnest in early 2013, with over one year of continuous work efforts as the date of this Report. The Project is focused on collaborative school and community investment around a section of the Grand Canal between Central Avenue and Seventh Street in uptown Phoenix, Arizona. The goal of the project is to develop this section of the Grand Canal to become a shared outdoor learning setting and “urban classroom” for the four partner schools that border the Canal section.

### **2012 Project Initiation**

The Grand Central Learning Center Project was initially conceived as a pilot project that the Arizona Forward Canalscape Committee could pursue as a model for community engagement around physical improvements to the canal system. This would parallel with work on the three-pronged Canalscape Committee work plan that includes organization of canal-based design guidelines, mapping analysis work and public relations initiatives. Upon presentation of the project concept at the kick-off meeting with school leadership in June 2012, it became clear that this pilot project had the potential to become a model Canalscape pilot project for the entire community. The subsequent Arizona Forward Canalscape Committee emphasis during 2012 was on moving this project-based approach forward from theoretical Canalscape discussions into a real world project that will help to shape the Phoenix metropolitan region.

Three meetings were held in June, August and October 2012 prior to receipt of the National Fish and Wildlife Foundation (NFWF) Grant in early 2013 (see **Exhibit A** for 2012 report). These three meetings reflected a shared understanding that the Grand Central Learning Center Project offers tremendous educational and institutional benefits because it is in the heart of Phoenix and borders the campuses of four schools, both public and private. The Grand Central project area is small enough to consider from a development perspective, includes numerous school and public partners, and occupies a site that is centrally located, highly visible and accessible from a mass transit station.

Canalscape Committee work with the schools during 2012 led to increasing interest in the project, and a commitment to continued work through 2013 on moving the project forward under the NFWF Grant. Meetings and project discussions with the City of Phoenix and Maricopa County in 2012 also indicated growing levels of support from SRP, the Maricopa

County Flood Control District, and the regional Metropolitan Association of Governance for the project concept, the Project Team efforts and future efforts to move the project towards implementation with right of way improvements as the first step.

### **2013 NFWF Grant Project Work**

Upon notice of award of the NFWF Grant in January 2013, the Arizona Forward Project Team developed a meeting schedule for working with the schools through spring, summer and early fall of 2013 (see **Exhibit B**). The goal for work under the grant was to bring together leadership and teachers from the four partner schools to work on development of:

- A shared educational framework for the future Learning Center Project
- Environmental, sustainability-driven and local history lesson ideas that the schools can share
- Student project ideas for connecting with the local community
- Learning Center site design features and a conceptual site plan
  - See **Exhibit C** for the NFWF Grant Logic Model that outlines the deliverables

A total of fifteen (15) different planning meetings in 2013 and early 2014 focused on the above goals, with four primary products and deliverables developed for the project including: the Educational Framework, the Sustainability Projects, the Site Plan and Learning Center Concept Plan and a supplementary work area for public event planning. Based on goals for deliverables under the NFWF Grant, expectations for productivity under the grant were met and exceeded. This Report summarizes work for the NFWF Grant and Event Planning during the period from February 1<sup>st</sup> of 2013 to March 1<sup>st</sup> of 2014, culminating in the Color Canalscape Event on March 1, 2014.

## **2. The Project Team**

Administrators, teachers and students from the four partner schools and members of the Grant Project Team were invited to join in the planning process. There were a total of 16 participants from the Partner Schools, 18 participants from the Grant Project Team and a total of 19 students from the four schools that were involved in the Sustainability Projects.

## Grand Central Project Team Participants – Partner Schools

### ***Central High School and PUHSD***

Chris Jones  
Elizabeth Toledo  
Shavon Waggoner  
Pat Prince  
Julia Perry  
Sharon May  
Paul Bonnett  
Roxie May  
Plus students – See **Exhibit M** typical

### ***Brophy College Preparatory School***

Joe Helm  
Plus students

### ***Xavier College Preparatory School***

Craig Coppola  
Janet Mambrino  
Plus students

### ***St. Francis Xavier School***

Kim Cavnar  
Mary Musgrove  
Paul Russo  
Cindy Fernandez  
Abby Aspen  
Plus students



**Figure 1: Joe Helm working with the Art Team during the November 2013 meeting**

## **NFWF Grant Project Team**

### ***Arizona Forward as Project Lead***

Dianne Brossart  
Stephen Thompson  
Lynette Pollari  
Heidi Curiel  
Alexandra Albert  
Jenny Benedetto  
Joan Baron

### ***ASU GIOS Sustainability Science for Sustainable Schools Program***

Monica Elser  
Gina Hupton  
Matthew Cohen  
Mady Tyson  
Ashley Hagaman  
Omayya Ahmad

### ***Salt River Project***

Jim Duncan  
Laure Molek  
Ann Brown  
LeeAnn Spahos  
Kevin Rolf  
Intern



**Figure 2: Canalscape Committee team members with the Bridge Team during the December 2013 meeting**

### **3. The Planning Process**

Members of the Grand Central Project Team met across a total of fifteen (15) planning meetings from March 2013 to March 2014, with meetings organized for planning and development of the Educational Framework and the student's Sustainability Projects. The meetings were hosted in a variety of locations including at the Arizona Forward office, Central High School, St. Francis Xavier School and Brophy College Preparatory School. Meetings were typically 1.5 hours in length and scheduled after 3pm to coordinate with after-school hours and schedules. Various meeting locations were chosen to emphasize the collaborative nature of the project. Through June 2013, team members discussed all aspects of the Grand Central project during the working meetings. After June, the meetings were split into separate planning sessions for three coordinated areas of effort including:

- a. Development of the Educational Framework, with the Learning Center Site Plan Concept Development
- b. Development of the Student Sustainability Projects
- c. Public Event Planning

See **Exhibit D** for meeting minutes

#### **EDUCATIONAL FRAMEWORK / SITE PLAN meetings -**

Meeting #1 - March 27, 2013

Meeting #2 - April 24, 2013

Meeting #3 - May 29, 2013

Meeting #4 - June 26, 2013

Meeting #5 - September 11, 2013

Meeting #6 - November 13, 2013

#### **STUDENT PROJECT meetings –**

Meeting #1 - July 24, 2013

Meeting #2 - August 14, 2013

Meeting #3 - September 18, 2013

Meeting #4 - October 23, 2013

Meeting #5 - November 13, 2013

Meeting #6 - December 11, 2013

Meeting #7 - January 15, 2014

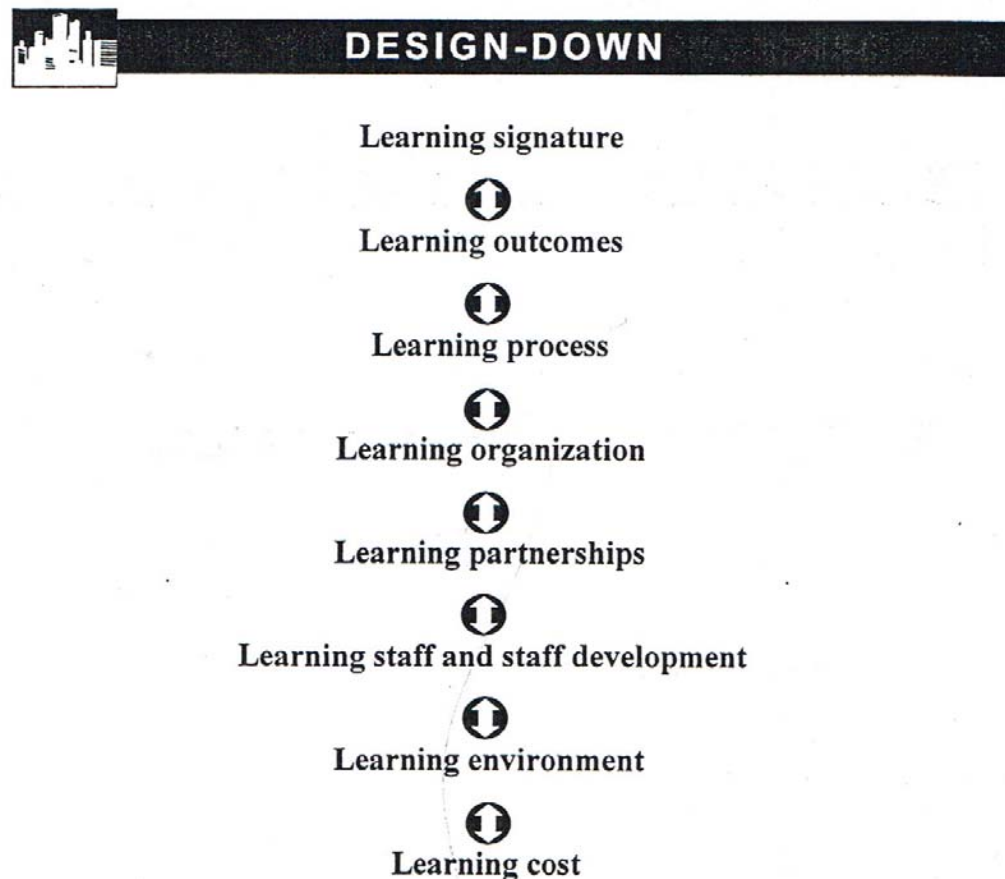
Meeting #8 - February 12, 2014

Meeting #9 - February 22, 2014



## A. Educational Framework Development

The Project Team utilized the “Design-Down Process” (K-12 Interdistrict Design Team Report, 1995) to create the Educational Framework and specifications for future educational programs and facilities for the Grand Central Learning Center. Six of the eight steps of the “design-down” process were employed, with two steps (learning staff, learning cost) left for future work by project partners. The Design-Down Process allowed the Project Team to move through the series of design phases, with each phase building on outcomes of the previous phases. The following sections of this report summarize the design specifications for developing the educational programs and facilities for the Grand Central Learning Center Project.



**Figure 3: Design-Down Process diagram, K-12 Interdistrict Design Team and West Metro Education Program Report**



# GRAND CENTRAL LEARNING CENTER

## PROJECT TEAM RECOMMENDATIONS

### Learning Signature

Effective schools and learning centers have a defining character and set of features that distinguish the school or learning center. These features and characteristics allow participants and the community to describe the special nature of the school or learning center. This special identity or character is known under the Design-Down Process as the *Learning Signature*. The Project Team agreed that the Learning Signature for the Grand Central Learning Center Project should focus on the following concepts:

- Bringing the entire community together around this section of the Grand Canal for learning, recreation and community building with sustainability as a focus and theme for action
- “Bridging” to be a primary theme for the project that can take both figurative and conceptual forms; bridging across the canal, bridging across the water, bridging between schools, bridging between communities

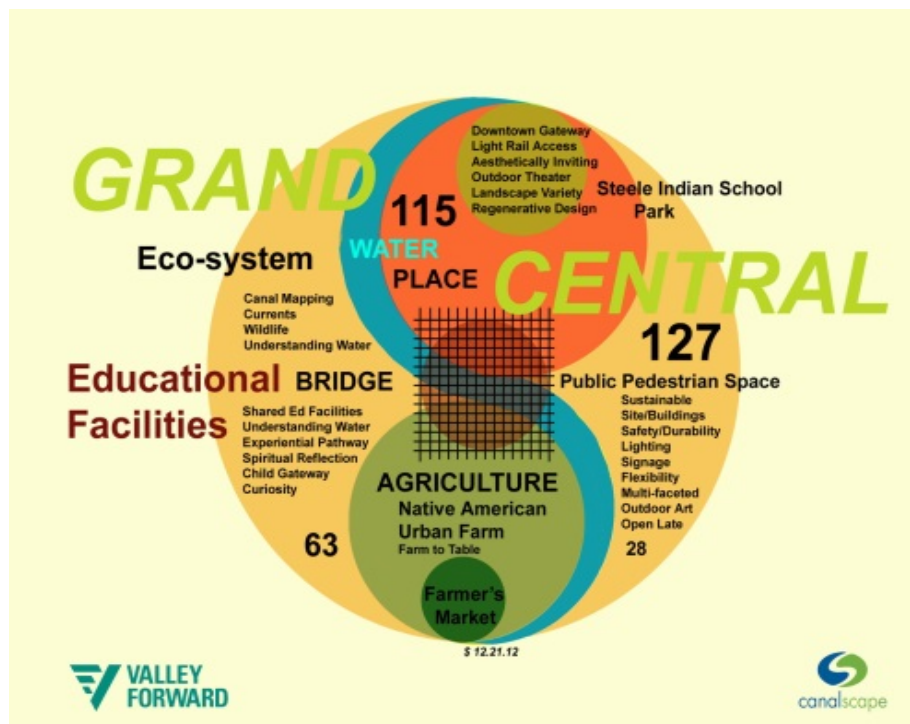


Figure 4: Learning Signature Concept Diagram

## Learner Outcomes

In keeping with Backward Design (Wiggins and McTigh, 2005) and the Design-Down (K-12 Interdistrict Design Team Report, 1995) educational planning theory and processes, the Grand Central Learning Center design process began by trying to keep the end in mind. This was accomplished by working to frame desirable characteristics of users of the Grand Central Learning Center. Team members said that visitors and users of the Learning Center should exhibit an understanding that:

- Gathering of community is essential
- Connection to the environment, the past and a sustainable future is important
- Students can and should be contributors to community
- Investment in growing community should be goal for all students
- Links between communities are essential
- Urban and ecological systems are complex (learn this through a focus on the Canal)
- Knowledge about water systems and the Canal is important to residents of the Valley
- Pride in “community” is a must
- There is strong connection between nature and art; the need to be creative should be encouraged as a means toward education and understanding



**Figure 5: Art Team on site, January 2014, preparing for the March 1<sup>st</sup> Event**

## Learning Process

During work on phase three of the Design-Down process, the Project Team worked on developing concepts for shared curriculum and instruction that can formulate the learning process for the Grand Central Learning Center Project. Project Team members agreed that learning processes for the Grand Central Learning Center Project should be:

- Interdisciplinary and project based
- Multicultural with regional focus, incorporating the rich tribal and native history of the Valley with learning, living and adaptation as common traits
- Learner Centered, with characteristics that can create a sense of place and excitement in students and learners
- Site based to use of global linkages; use of best practices and technologies for education; use of the CANAL ENVIRONMENT as the primary learning setting
- Dependent on cooperative learning processes; the idea that community building between the four partners schools and larger community is essential to build a “learning culture”
- Experiential; experiential and multi-functional environments and learning settings that can allow for learning across the senses (sight, sound, hearing, touch, smell)

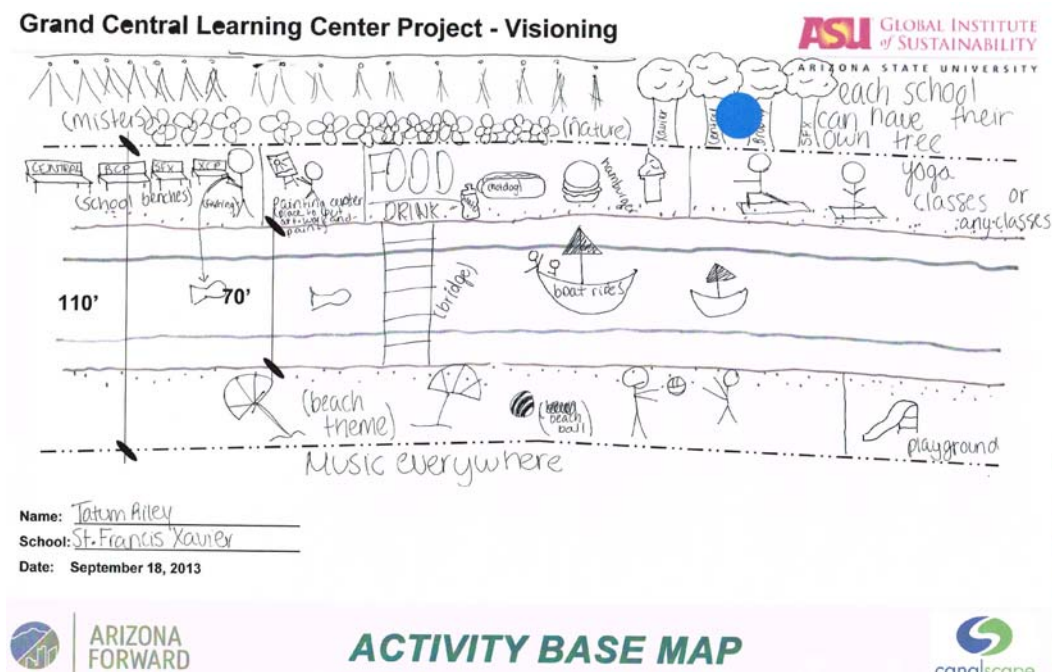


Figure 6: Example Student Visioning Sheet from September 2013 kick-off meeting

## Learning Organization and Environment

While design of the Grand Central Learning Center's learning organization and potential learning environments will take much effort into the future, the Project Team was able to identify essential characteristics for both that should guide future work:

**Learning Organization**— *envisioning a CANAL-BASED learning organization including both indoor and outdoor learning environments:*

- A learning organization that brings the community together around this important section of the Grand Canal for learning, family recreation, and community building
- A community-based learning organization that brings together the four schools in new ways, and welcomes in the entire community to assets of the learning environment across different times of the day and night
- A learning organization that will set an example for the larger community around the CANAL as a “bridging” force for community building, and civic education about the canal system and water delivery to the Valley
- A learning organization that transcends the individual schools and brings all partners into a new civic enterprise; an educative public open space



**Figure 7: Students from all the schools gather together for on-site learning, January 2014**

**Learning Environments**– *envisioning a range of learning environments focused on the CANAL ENVIRONMENT:*

The entire CANAL right of way is envisioned as a shared learning environment, supplemented by connections to the partner schools' sites, Steele Indian School Park and neighboring commercial nodes. A linear, 6 acre section of residential parcels remaining on the north side of the Canal, just west of 7<sup>th</sup> Street is envisioned to provide area for the future Learning Center.

A future Learning Bridge is envisioned as multi-functional north/south “bridge” structure in line with the Phoenix Union High School District parking lot. The Learning Bridge is intended to be more than a bridge, expanding out to become a place and a destination. The location of the Learning Bridge can reinforce a strong, spatial connection from the site of the future Learning Center to Steele Indian School Park.

Project Team members said that the Grand Central Learning Center's “environment” should include:

- The Canal right of way as a linear learning environment and community space; a recreational corridor
- Connection to Steele Indian School Park as a next-door learning environment
- Flexible outdoor and indoor classrooms and learning spaces
- Connection to neighbors including businesses
- The idea of the Learning Bridge; more than a bridge, also an outdoor classroom, a meeting place, a bat bridge, a dock, an exhibit place
- The Canal infrastructure and natural water running through it as the heart of the Learning Environment; watershed connections
- Student gardens, biome gardens and community gardens; urban agricultural space
- A water park, with both canal water and storm water made evident
- A market place – farmers market, art market
- Sustainable environments
- Shade generating environments, green environments, green walls students can climb
- Landmark environments; a time capsule component

## **Learning Partnerships**

Work on phase five of the Design-Down process for Learning Partnerships was accomplished at every meeting across the eight month planning process. Leadership from Arizona Forward, ASU, SRP and the four partner schools were keenly aware that partnership building is critical for moving towards a governance framework for the project. A future public / private partnership is envisioned that will be able to champion the Grand Central Learning Center Project and comprehensive development of and stewardship of the Canal right of way.

During the July meeting, Kim Cavnar, the principal of St. Francis Xavier School said that the core concepts of “stewardship” and “sustainability” should drive the Educational Framework, the curriculum projects and the Grand Central Learning Project as a whole. She stressed that collective efforts of the stakeholder groups across time must be aimed at growing and sustaining the Grand Central Project and partnerships.

### **Learning Partners involved in the project include:**

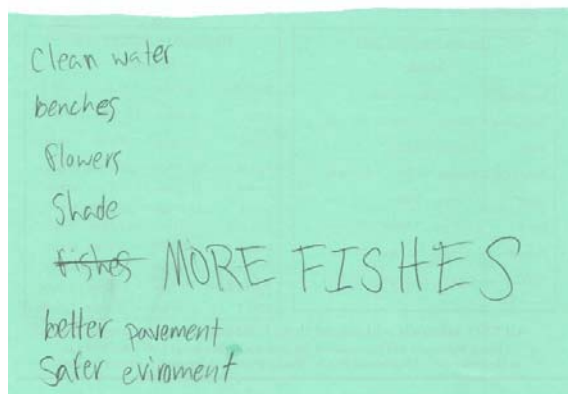
Arizona Forward  
Salt River Project  
ASU GIOS Sustainability Science for Sustainable Schools Program  
Central High School  
Phoenix Union High School District  
Brophy College Preparatory School  
Xavier College Preparatory School  
St. Francis Xavier School  
Reinvent Phoenix Project  
ASU GIOS Ecology Explorers and CAPLTER projects  
City of Phoenix, Transportation Department, Office of Arts and Culture  
Scottsdale Public Art  
Maricopa County Flood Control District  
Phoenix Mayor’s Office  
Boys Hope Girls Hope – Phoenix  
Capoeira Brazil



## B. Student Sustainability Project Development

Goals of the student Sustainability Projects under the NFWF Grant are to enhance school stakeholder knowledge of sustainability and the project site's history, provide the schools with sustainability-focused community service project ideas for implementation, and begin to build collaboration between the four partner schools across curriculum delivery that can embrace the Canal right of way as an outdoor learning setting and "outdoor classroom".

Development of the student Sustainability Projects was discussed at every monthly meeting during spring of 2013, with focused work with teachers during the summer to get ready for piloting of projects during the fall school term. In preparation for project development, S4 fellows generated sustainability project ideas for review at the April Project Team meeting. Some initial student input that Julia Perry of Central High received from her students was also reviewed. Based on this initial input from Central students, the team decided to create and issue a student mini-survey / flyer document to gather additional input from students across the four schools (see **Exhibit E** for the flyer).



**Figure 8: Student input prior to issuance of "flyer"**

Student input was reviewed by the Project Team with assistance from a student intern from BioScience High School that joined the team in September under mentorship of the S4 Fellows. This review suggested that students favor recreation, aesthetics, benches, and vegetation. For recreation, students are asking for parks, playgrounds and places to congregate to have fun. In terms of aesthetics, there is a general consensus for keeping both the canal right of way and water clean. Students also value public art and flowers to add color to the area. When discussing vegetation, students are particularly interested in grass, native plants, and gardens sites for food production. See **Exhibit F** for a report on the student input.



During the third meeting in May, the Project Team decided that the majority of work on development of the student projects should happen during the summer months, with project plans slated to be ready for the start of school in August. Between the June and July meetings, S4 fellows worked on data gained from review of all the meeting minutes, to develop conceptual frameworks for the student projects. In July, the concept frameworks and related project ideas were reviewed (see **Exhibit G**). At this meeting, the range of project themes was narrowed down to 1) shade, 2) bridging, 3) water, and 4) landscape. The Project Team discussed the desire for the student projects to become the first “model” for community building between the schools, by encouraging student teams to include students from all the other schools.

After the July meeting, S4 leadership and fellows worked on developing the framework and project plans for the Sustainability Projects, focusing on three primary sustainability themes of shade, water and bridging. Goals for the student projects included building student skills in research, design thinking, artwork production and modeling, as well as oral presentations and performances while building a broad understanding of the implications of sustainability on canal-oriented development and community use. Three guiding project planning sheets (see **Exhibit H**) were developed and reviewed with teachers during the August meeting. This review session allowed for input leading to preparation for the first meeting with student teams from the four schools. Each school was asked to bring up to six students to the first student meeting.

September was the first meeting with students from the four schools. The meeting was held at St. Francis Xavier School’s library. The majority of the 1.5 hour meeting schedule was dedicated to collaborative Canalscape visioning exercises with the students. After a hearty welcome to the students and dissemination of the project description sheet (see **Exhibit I**), two different work sessions were facilitated by AZF leadership and S4 fellows. Artist Joan Baron and S4 fellows, Mady Tyson and Matt Cohen facilitated the individual and group visioning activities (see **Exhibit J** for “boards” of the student visioning sheets). A short history of canal development from 1000 AD to present was delivered by Stephen Thompson through use of presentation boards. The intent was to provide students with some critical background information for understanding their projects.

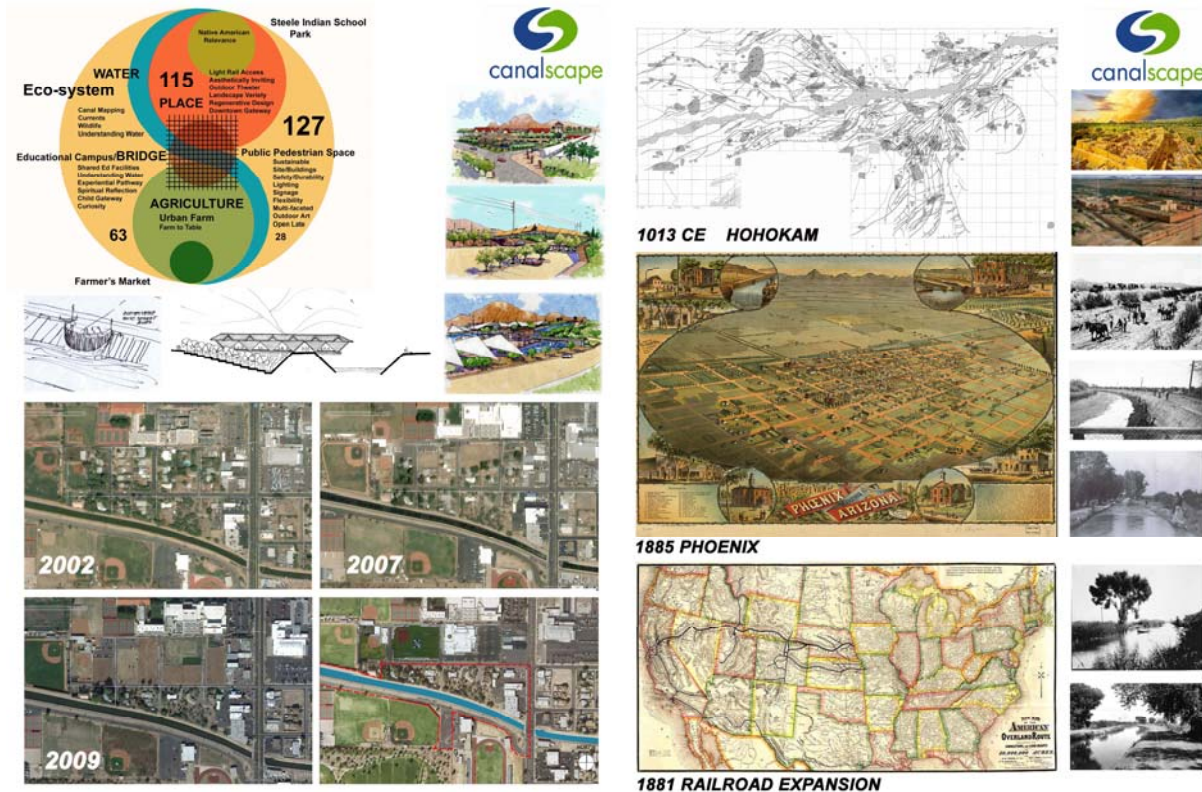


Figure 9: Canal History Boards

A synthesis of the student visioning sheets by the S4 team led to a categorization of the student visions into three major categories of envisioned changes to the canal including 1) Infrastructure and Amenities, 2) Ecosystem and Landscape, and 3) Environmental Art and Communication. These categories seemed to lend themselves to student project team formation.

During the October 23<sup>rd</sup> meeting, after a sustainability/canal history ice-breaker activity, students had time to review each other's visions through a "gallery walk" of the student visioning boards. Students were asked to identify the category most interesting to them and form teams. Team leaders were assigned for each group and the student teams worked to fill out a team project form by the end of the meeting (see **Exhibit K** for the project form).



**Figure 10: Mayor Stanton attends the February student meeting at St. Francis Xavier Library**

Meetings were scheduled monthly with the three student teams from November 2013 until March 1<sup>st</sup> of 2014, when collaborative project displays from the three teams were presented at the Color Canalscape Event staged on March 1, 2014. During the last formal February working meeting with the student teams, Mayor Stanton attended the session and presented a short talk to the entire group about the value of the canal system to the City of Phoenix and Valley as a whole. He visited each team to discuss their projects and provided input for their efforts leading to successful project presentations at the Event.

Work by the student teams resulted in community building between the schools, new friendships within the overall student group, and wonderful products displayed at the March first event that clearly demonstrated the level of understanding that each team gained about the canal system and sustainability concepts in general. The following pages provide a glimpse of the collaborative work the student teams accomplished leading up to the Event, along with images of the student run booths at the Color Canalscape Event on March 1<sup>st</sup>.



## Art and Communication Student Team

*Vision for Change:* Environmental art walls along the Canal are envisioned with seating areas, shade and night lighting. Change can begin with transformation of existing chain link fencing along the canal into “art walls” through integration of new fence art into existing chain link systems. During the March 1<sup>st</sup> Event, the public was invited to create an artful section of chain link fence by installing recycled metal cans within the profile of Central’s “wildcat” logo.



### ***Team Members:***

Joseph Cruz, Central  
Anais Gutierrez, St. Francis  
Lisa Moreno, Central  
Penelope Ramos, Central  
Tatiana Rosales, St. Francis



## Infrastructure / Bridging Student Team

*Vision for Change:* Two new bridges are envisioned within the school's section of the Grand Canal, one on the east side facilitating pedestrian circulation between Central and Brophy, and the new Learning Bridge located near 7<sup>th</sup> Street to facilitate circulation to the future site of the Learning Center on the north, and Steele Indian School Park on the south. The Learning Bridge is envisioned as a structure that accommodates both circulation and learning activities by providing space on either side of a central circulation zone for break out groups and gathering. The Bridge Team designed and built a seven foot long, wood scale model of the Learning Bridge to display at their booth at the Event.



### **Team Members:**

Matthew Burleson, Brophy  
Mallory Miller, Xavier  
Tina Monteith, Xavier  
Will Olesiewicz, Brophy  
Mar Met Sa Lin, Central  
Kate Randolph, Xavier  
Charlie Regester, Xavier  
Hannah Toledo, Xavier





## Ecosystem / Landscape Student Team

*Vision for Change:* Greening of the canal banks to create shade and new ecosystems for urban wildlife is envisioned by the Student Team. Concepts include use of drought tolerant species, acceptable to SRP that will provide habitat for bees, birds and other species. The mission of the team is to “preserve the vibrancy of both the community and the environment through sustainable plant choices”. The team’s poster at the Event was titled “Bee’s Needs”.



### **Team Members:**

Mira Briestensky, St. Francis  
Alex Frankhavser, Brophy  
Dominique Jablonski, St. Francis  
Tatum Riley, St. Francis  
John Sittu, Brophy  
Ulysses Sarmiento, Central



### C. Site Plan and Learning Center Concept Development

Initial site plan concept development started in summer of 2012 when the Arizona Forward Canalscape Committee embraced development of a concept plan for the future Grand Central Learning Center project. In the 2012 plan, the entire Canal right-of-way was envisioned as a shared learning environment with a linear, 6 acre section of residential parcels on the north side of the Canal, just west of 7<sup>th</sup> Street, shown as the site for the future Learning Center.

In this early concept plan, a modest bridging element was shown crossing the Canal to provide connection to Steele Indian School Park. Invigoration of neighboring businesses was proposed through development of a farmers market based commercial development adjacent existing commercial venues facing 7<sup>th</sup> Street. Flood control constraints on site were envisioned as leading to opportunities for development of a water demonstration zone within the site, adjacent community gardens and urban agricultural areas to the west.

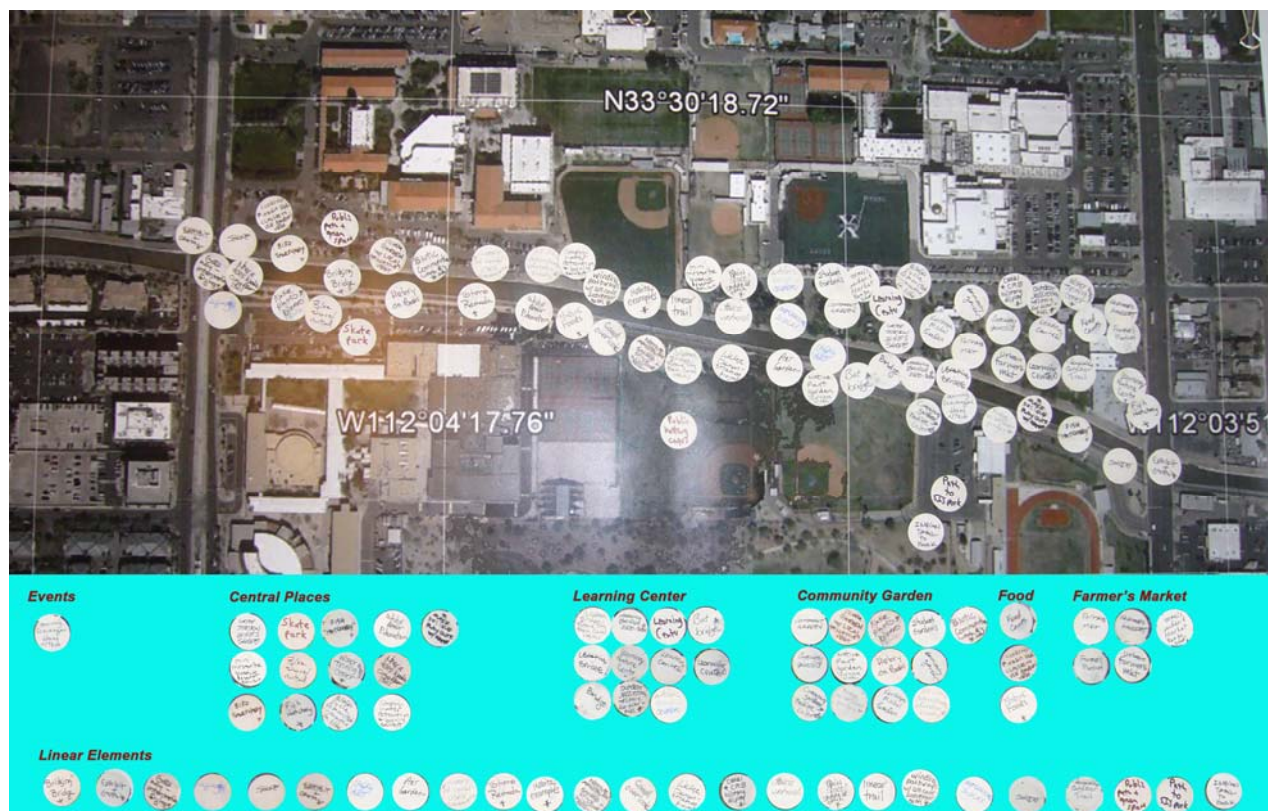


Figure 11: 2012 Concept Site Plan



During the March, April and May meetings, the Project Team focused on the first three design steps in the Design-Down process for the Educational Framework, leaving dedicated work on the learning organization, learning environment and site plan concepts for the June and September meetings. At the same time, discussions at each meeting about curriculum development, the student projects and the event planning pertained directly to the site plan concept development.

At the June meeting, the Project Team engaged in an interactive site plan visioning exercise where each participant was given (6) dots, upon which each participant wrote the name of a desirable place, setting or learning activity, and located the dots on a large base map of the site area relating to their proposals. Discussions among the participants revealed some new and interesting concepts for setting and activities, along with showing strong support for previous anchoring concepts relating to the preferred site for the future Learning Center site north of the Canal, the Learning Bridge, desired connections to Steele Indian School Park and the dire need for shade along the Canal.



**Figure 12: June 2013 learning organization, environment and site plan brainstorming**

Analysis of input from the June meeting was accomplished in preparation for the September meeting, where the majority of the meeting was dedicated to prioritizing site plan concepts. At this meeting, the 5<sup>th</sup> of six total working meetings for development of the Educational Framework for the Grand Central Learning Center project, participants brainstormed site plan concepts for “bricks and mortar” improvements to the Canal right of way. Everyone was asked to review the list of site plan program concepts by topic categories that had been developed during Framework meetings #1 through #4, and to rate each category in relationship to which should come first to structure future, phased construction projects. Under each rating category, participants entered subtopics that they chose as most important from the lists. Through this rating activity, it was determined that projects relating to *linear features* and the *learning bridge* should come first, with *crossings* next, *community gardens/agriculture/farmers markets* in fourth place and the future *learning center* in fifth place. See **Exhibit L** for the tallied program lists.

This program reiteration and rating activity was very valuable because it lent consensus and credibility to site plan and programming efforts through the year, and provides content for discussions with the City of Phoenix, MAG and SRP for potential funding programs for phased right of way and adjacent land projects. The further developed site concept plan is represented by the tallied program lists (**Exhibit L**) and Figure 12 below.



**Figure 13: November 2013 Grand Central Concept Site Plan with linear improvements, the Learning Bridge location and the Learning Center Concept Plan**



## D. Public Event Planning, the Color Canalscape Event

Discussions about a celebratory public event began early in the planning process. At the March 2013 meeting, Jim Duncan of SRP discussed the potential for environment art projects from the Scottsdale “Canal Convergence” project to find a new, temporary home at the Grand Central site, with the goal to raise public awareness of the value of this section of the canal and the vision for the future learning center. At the April meeting, the idea of enlivening the Grand Central Canal section with a public event was approved by the Project Team. While the specific strategy for relocation of Scottsdale canal art was not pursued for the final event, this early discussion of public celebration and awareness of the project led to early planning for the Color Canalscape Event. During the May meeting, a draft event plan was reviewed by the Project Team to begin discussions around shared goals for the Color Canalscape Event. The entire team agreed at this meeting that the public event was a good idea for raising awareness about the Arizona Forward Canalscape Initiative, for community building between the schools and the larger community, and to enhance development and delivery of the student sustainability projects by offering an exciting venue for displays, performances and celebrations of the students’ and school’s work and performance groups. Meetings were held every month up to March first of 2014 for event planning and coordination with the students for completion of their Sustainability Projects for public display.



Figure 14: The Color Canalscape Event Flyer



**Figure 15: Central High provided their Honor Guard and choir with the National Anthem to begin the Color Canalscape Event program**

Phoenix Union High School District with Central High School provided the site for the Color Canalscape Event on March 1st with support by the other schools for public parking, staging, security services, equipment use and performance groups. St. Francis Xavier School's choir sang a song composed for the event and dance performances were staged by Central High dance groups and the local Capoeira Brazil dance troupe. Each of the three student teams manned a booth at the Event, with collaborative work amongst team members to present their projects in this public forum.

The Color Canalscape Event on March 1<sup>st</sup> represents the celebration of over one year of continuous work by project partners on the Grand Central Learning Project. With the Event heralding closure on one phase of work, it also signals the beginning of new efforts to move the Grand Central Learning Center Project into new phases of development and reality.

#### **4. Issues for Further Discussion**

A debrief meeting for the Project Team will be held in April 2014 to review work accomplished during 2013 and early 2014, and to set goals for future initiatives that can grow and sustain the Grand Central Project and its learning partnerships well into the future. Coordination with the Reinvent Phoenix Project and City of Phoenix and ASU team, which began in March 2014, will continue through the year. Opportunities exist through the Reinvent Phoenix Project to “grow” the Grand Central Project through potential improvements to the Grand Canal and related canal street crossings between 7<sup>th</sup> Avenue and 12<sup>th</sup> Street, with the Grand Central Learning Center site and canal section located right in the middle of this “pilot project” zone. Members of the Project Team attended two public workshops for the Reinvent Phoenix Project in March, with members of the Student Bridge team speaking eloquently to the need for their envisioned bridge crossings to be included in the City’s plans.

Driving questions that will be considered at the April 2014 meeting include:

- 1) What grant programs are available to provide funding for continued curriculum planning work for the partner schools around the Grand Central Learning Center Project and sustainability science?
- 2) What type of public / private partnership can be formed to steward and champion the project far into the future?
- 3) How can the property for the future Learning Center be secured?
- 4) How can the larger community be brought more fully into the project?
- 5) How can first steps in enhancement of the Canal right of way begin? Can local funding for “bricks and mortar” projects be found to begin the transformation of this lonely utility corridor into the core of the future Learning Center Project’s site? Can collaboration with the Reinvent Phoenix Project and the City of Phoenix be the first step towards transformation of this section?



**Figure 16: Existing Conditions, south bank of the Canal looking east**

#### **REFERENCE LIST**

K-12 Interdistrict Design Team (1995). *A Framework for Guiding the Development of the K-12 Education Program and Learning Facilities*. Minneapolis, MN. Author.

Wiggins, G. and McTighe, J. (2005). *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

**Exhibit A –**

Grand Central Project

Canalscape School Report 2/12/2013



## The Grand Central Learning Center Pilot Project – 2012 Summary Report Valley Forward Canalscape Committee

Valley Forward extends sincere thanks to our friends from Central High School, Brophy College Preparatory, Xavier College Preparatory and St. Francis Xavier Elementary for their time and commitment in 2012 to initiate visioning for a Canalscape project within your neighborhood community. We are excited to continue our work with you to bring this exciting central Phoenix outdoor learning project to reality.

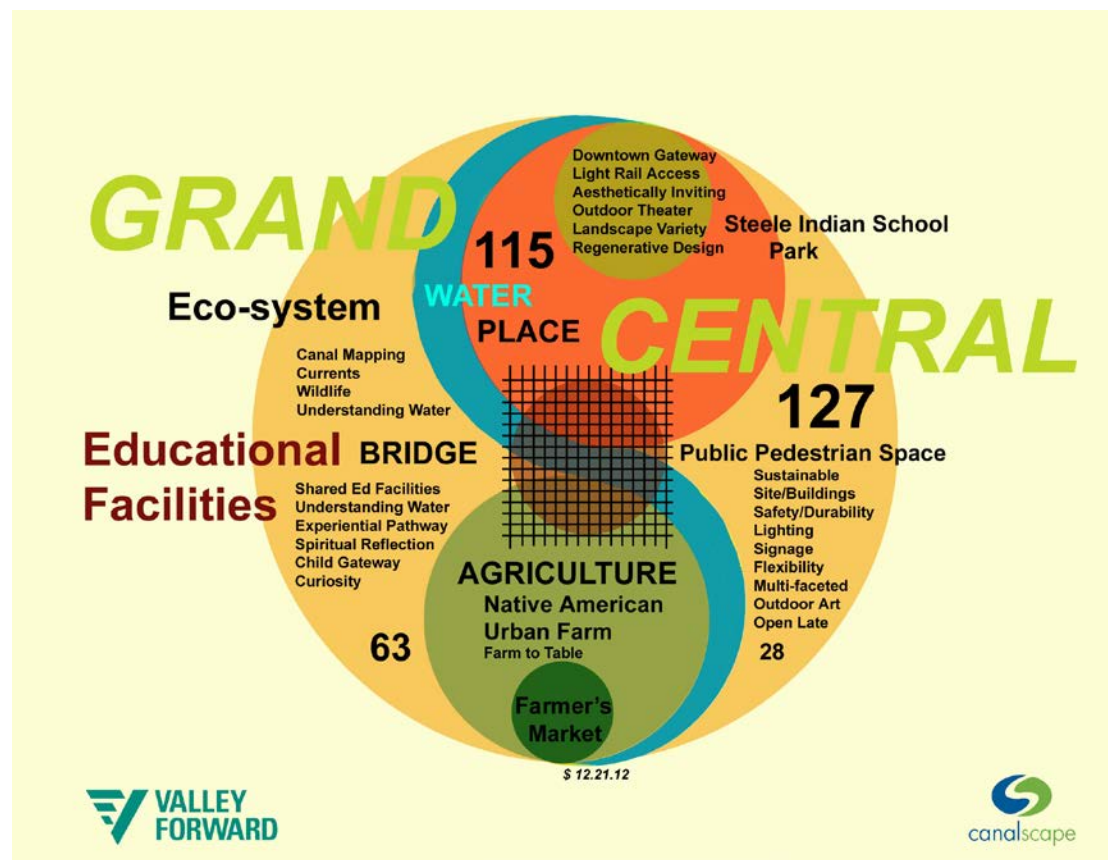
In this New Year, we look forward to embarking on a focused school-based educational framework planning process that will be geared towards development of a shared Educational Framework and design foundation for the Grand Central project. Additional outcomes expected from this process include:

Outcome #1 – Enhance School Stakeholder knowledge of sustainability and project site history

Outcome #2 – Prioritize Learning Center and Learning Site design features

Outcome #3 – Provide schools with community service project ideas for implementation

Attached please find meeting minutes (Exhibits A, B, C) and exhibits (C.1 and C.2) from the three 2012 meetings held during the months of June, August and October, along with a new Concept Map that we have created for your consideration.



Valley Forward Concept "Map" for the Grand Central Learning Center Project, 2012

## **Exhibit A:**

### **Valley Forward - Grand Central Learning Center Pilot Project**

#### **Stakeholder Meeting #1 at Phoenix Central High School**

**June 20, 2012**

Attendees: Nora Gutierrez, Assistant Superintendent, Phoenix Union High School District  
Pat Prince, Director of Building and Grounds, Phoenix Union High School District  
Chris Jones, Principal, Central High School  
A. Smith, SRP  
John Graham, Sunbelt Holdings  
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Bill Allison, Gallagher & Kennedy; Canalscape Vice-chair

D. Brossart facilitated general introductions and thanked C. Jones for hosting. C. Jones shared information about Central High School, including the school's affiliation with Cambridge University as the first Cambridge International School in Arizona. J. Graham introduced the project site from the perspective of his involvement with Xavier and Brophy development projects. J. Graham presented an historic perspective of the neighborhood, which has dwindled in size to just three current landowner groups. His aerial photos of the site were invaluable in indicating the adjacencies and potentials for the Grand Central Learning Center site.

D. Brossart presented a brief introduction of the historic Canalscape initiative, beginning with its origin in the 1980's at ASU, through the efforts of the Metropolitan Canal Alliance and including Nan Ellin's considerable efforts to bring canals back into the public consciousness. After N. Ellin's departure from ASU in 2009 for the University of Utah, Valley Forward became the steward of Canalscape. D. Brossart explained the emphasis on a project-based approach under Valley Forward, to begin to take the initiative from the theoretical realm into real world projects that will shape the City.

S. Thompson discussed the Team's desire to undertake a "manageable" pilot project; one with obvious public benefits and limited complexity and complication due to land entitlements. The Grand Central site is small enough to consider, includes numerous obvious potential partners and occupies an important site that is central and highly visible. The VF Team has early indications of support from SRP, Maricopa County Flood Control District, the City of Phoenix, and based on the results of this meeting, Phoenix Union and Central High School as well. Primary initial project components and concepts for the learning and public site include:

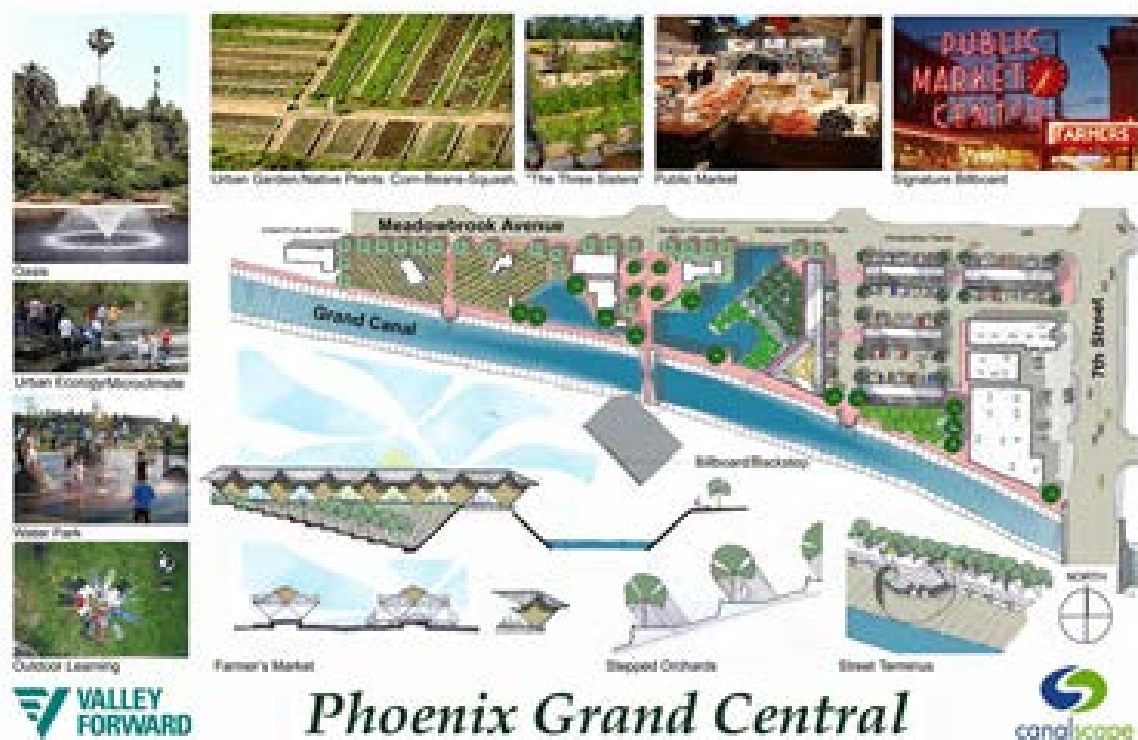
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2. Farmer's Market
3. Outdoor Learning Center
4. Water Demonstration site
5. 7<sup>th</sup> Street retail development
6. Transit link
7. Bridge to connect disparate school facilities

These potential activities were greeted by those assembled with solid support and interest. S. Thompson indicated VF Team's desire to create an inclusive school stakeholder committee and requested the School District's support in assembling a representative and committed group. S. Thompson further indicated the Team's hope that student participation, on some level, can provide a key piece of the programming puzzle.

General discussion was opened at this point. A. Smith of SRP indicated SRP's interest in the project, with the caveat that they would need much more information before any formal commitment. N. Gutierrez, P. Prince and C. Jones expressed interest in pursuing the project further. It was decided that a second stakeholder meeting would be convened, this time with representation from the other adjacent schools and slated for mid-August, once the academic year was underway. C. Jones offered use of Central's conference room, and it was generally agreed that this would be an excellent venue for the early meetings. Once the Educational "Steering Committee" is formed and goals have been established, it will be necessary to engage PUHSD leadership for concurrence; a similar need is anticipated with Brophy, Xavier and St. Francis. Valley Forward's Canalscape Committee extends an open offer to present the project in more detail with the aid of our slide presentation. The presentation, including early historic research and more current efforts, requires about 45 minutes.

Grant opportunities are being explored by Valley Forward through Wells Fargo, MAG and other sources. The need for planning funds was stressed, as the project will require considerable effort. The specific logistics of the entitlement process was not discussed in detail, however VF suggests consideration of an umbrella 501(c)(3) to purchase the properties, with resale to the City for \$1. Operation & maintenance might be established through a consortium of the involved schools, and the many partners including the County and the City of Phoenix.

*-----End of minutes-----*



## **Valley Forward Concept Site Plan for the Grand Central Learning Center Project, 2012**

### **Exhibit B:**

#### **Phoenix Grand Central Pilot Project**

##### **School's Meeting #1 at Central High School**

**August 28, 2012**

Thanks for hosting Central!      Next Meeting @ Brophy HS: October 9, 2012

Attendees:      Dr. Schavon Waggoner, Dean of Instruction, Central High School  
Nora Gutierrez, Assistant Superintendent, PUHSD  
Pat Prince, Director of Building and Grounds, PUHSD  
Jim Duncan and Allison Smith, SRP  
Maricopa County Flood Control (2)  
Brophy (2)  
Xavier (1)  
St. Francis (2)  
Addy Chapa, VF  
Diane Brossart, President, Valley Forward  
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Monica Elser, GIOS  
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Dr. Waggoner welcomed the group in the Media Center space and facilitated introductions. Central High school is pleased to support the Grand Central Project as a vital link between the partner schools and will share responsibilities hosting with the other schools.

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S. Thompson presented the Canalscape slide show to bring everyone up to speed on the process to date. This presentation includes historic background on canal development from 500 BC through Spanish conquest and post-Civil War Phoenix. Water sources and interventions play a big role in the development of Metropolitan Phoenix. Sadly, much of the history has simply been overlaid by the Jeffersonian grid.

A general discussion formed the later part of the meeting, with a range of issues and concepts discussed from concern about flood water management on the site, and a general consensus that the Canal provides an invaluable amenity for outdoor learning and curriculum development for the partner schools. It was decided that the next meeting would be scheduled at Brophy High School, gathering together school partners and Valley Forward members, to review and brainstorm educational framework concepts for the learning site.

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## **Exhibit C:**

### **Phoenix Grand Central Pilot Project**

#### **Stakeholder Planning Meeting #2 at Brophy High School**

**October 9, 2012**

D. Brossart welcomed a large group that assembled in the Media Commons space to this second of school-based meetings on the Grand Central Learning Center Project (see attached **Exhibit C.1** for the RSVP list for the meeting). She provided an overview of the agenda for the meeting, with a slide show on design of learning environments and an overview of the concept site plan for the Grand Central Site by Stephen Thompson as the ice-breaker for the meeting.

The second half of the meeting was utilized for a visioning session on educational criteria for the Grand Central Learning Center's educational program, site and facilities, with all participants invited to suggest broad concepts that can inform development of an educational framework to be shared by school partners. After all the concepts were scripted on 3M sheets, workshop participants were given six total "dots" to use to vote on their favorite concepts and issues. The only rule about voting was that all votes could not be cast on a single item.

Results of the brainstorming session (see attached **Exhibit C.2**) divide responses into votes by Educational partners (blue dots), versus Public partners (red, yellow and green dots). There were 71 votes by Educational partners and 261 votes from Public partners, resulting in a total of 332 votes across 39 concepts. The concepts have been bundled into four primary categories including:

- Public / Pedestrian amenity – 140 total votes
- Curriculum / Education – 66 votes
- Sustainable Site / Agricultural site – 103 votes
- Miscellaneous – 23 votes

The distribution of votes across the conceptual categories shows that attendance by Public Partners at the meeting was much higher than attendance by Educational Partners. This data on "public based" concepts for the site will provide a solid foundation for the upcoming, school-based planning process that will utilize the eight steps of the "Design Down" educational planning process.

- |                         |                         |
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| • Learning Signature    | • Learning Partnerships |
| • Learning Outcomes     | • Learning Staff        |
| • Learning Process      | • Learning Environment  |
| • Learning Organization | • Learning Costs        |

L. Pollari noted the focus in 2013 will be on moving through the "Design Down" steps across a total of five (5) meetings with a focused, school-based planning group that will require a minimum of three partners from each of the four schools.

D. Brossart closed the meeting by thanking everyone for their attendance, with special appreciation to Brophy leadership for hosting the meeting. St. Francis leadership offered to host the next meeting.

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[illegible]

SENT MEETING NOTICE:

EMAILED/CALLED:

**Exhibit C.2 - Grand Central Learning Center 10/9/2012**  
**Visioning Session #1 - Educational Criteria**

no	concept / issue	ED group votes	Public votes	Total	% of category (rounded up)
<b>A</b>	<b>Public / Pedestrian amenity</b>				
1	bike destination	4	28	32	23%
2	pedestrian friendly	9	11	20	14%
3	pedestrian/water interface	3	13	16	11%
4	user friendly	6	9	15	11%
5	access to Steel Indian School Park		15	15	11%
6	"bridging"		15	15	11%
7	bridges	4	10	14	10%
8	linkages / light rail	2	5	7	5%
9	open into evening		1	1	1%
10	public market		5	5	4%
	<b>SUBTOTAL</b>			<b>140</b>	
<b>B</b>	<b>Curriculum / Education</b>				
11	bullet proof / safety	6	3	9	14%
12	flexibility / multi-use		9	9	14%
13	children's understanding of water	2	6	8	12%
14	shared educational facilities	7		7	11%
15	place of spiritual reflection	4	3	7	11%
16	best practices in education	2	5	7	11%
17	variety of landscapes	1	6	7	11%
18	outdoor theatre	2	4	6	9%
19	sense of place		6	6	9%
20	kids opening up to the World from the site			0	0%
	<b>SUBTOTAL</b>			<b>66</b>	
<b>C</b>	<b>Sustainable Site / Agricultural Site</b>				
21	sustainable site and buildings	3	9	12	12%
22	lighting / signage		12	12	12%
23	wildlife / ecosystems	5	7	12	12%
24	Farm to table concept		12	12	12%
25	urban agriculture	1	10	11	11%
26	regenerative design	1	10	11	11%
27	use of City Aesthetic Funds	3	7	10	10%
28	Native American Relevance(Steele Park)		10	10	10%
29	high density agriculture		13	13	13%
	<b>SUBTOTAL</b>			<b>103</b>	
<b>D</b>	<b>Miscellaneous</b>				
30	"steam" / water theming	1	4	5	2%
31	engage curiosity	1	3	4	2%
32	temporary outdoor art		4	4	2%
33	aesthetically inviting	1	2	3	1%
34	mapping of canals		3	3	1%
35	experiential path	2		2	1%
36	Gateway to Downtown	1	1	2	1%
37	multi-faceted			0	
38	currents			0	
39	Impact of "no water" on kids			0	
	<b>SUBTOTAL</b>			<b>23</b>	
	<b>TOTAL VOTES</b>	<b>71</b>	<b>261</b>	<b>332</b>	



**Exhibit B –**  
NFWF Grant  
2013 Project Meeting Schedule

## **The Grand Central Learning Center Project**

### **Spring 2013 Educational Framework Planning Process**

#### **Draft Schedule / Agenda**

**January 25, 2013**

#### **Abstract:**

The Grand Central Learning Center Project is aimed at development of a six- acre linear site on the north bank of the Grand Canal and west of 7<sup>th</sup> street into an outdoor learning center for the neighboring schools of Central High, Brophy College Prep, Xavier High School, St. Francis Elementary School, and the larger community. This educational and environmental project has potential for high measurable impact through development of a shared outdoor learning center, a civic gathering space for local residents, a water demonstration exhibit, urban agricultural fields showcasing the historic planting traditions of the Hohokam people, and a central farmers market location. The Valley Forward team will work with school stakeholders to develop the shared Educational Program Framework and Site Program through a facilitated focus group workshop process. A total of five monthly meetings will be accomplished from February of 2013 to August of 2013, utilizing a “design down” educational planning process for program development. The project will focus on enhancing school stakeholder knowledge of sustainability and the project site’s history, prioritizing Learning Center design features, and providing the schools with sustainability-focused community service project ideas for implementation.

- **Broad Goals for Planning Process:**

- Develop stakeholder team, with goal for typical “working” group size of 12-15 people
  - Two to three representatives from each school as core “school” stakeholder group (Central, Brophy, Xavier, St. Francis)
  - Stephen Thompson and Lynette Pollari as VF facilitators, with Diane Brossart, William Allison and Stephen Buckman as team members, and Monica Elser and Fellows as ASU GIOS reps for the Sustainable Schools program
  - Special guests planned from GIOS, SRP, Flood Control District, etc.
- Meeting on same day each month
- One location chosen for all the meetings; need meeting room(s) with marker boards, pin-up walls, projection capabilities, cozy/homey, etc.

- 2.5 to 3-hour meetings max, with minutes from each meeting published within same week as meeting
- Meetings to be divided into two sections, with first half covering re-caps, guest speakers, case studies, and second half as small group brainstorm sessions, with reporting out period

### **Five meetings across Spring 2013**

#### **Mid-February**

Goals for overall process, deliverables under the Fish and Wildlife Grant, project partners (GIOS, etc).  
Review Project Report from Fall 2012; recap results of *Design Criteria* brainstorm session from Fall  
Re-Introduce the “design down” process

-Break -

Brainstorm session (small groups of 2-3, with report-out session): ***Learning Signature***

#### **Mid-March**

Recap results of *Learning Signature* brainstorm session

Speakers: “Sharathon” session – School Learner Outcomes from each School, to create basis for building shared learner outcomes for the Grand Center Learning Center

-Break -

Brainstorm session (small groups of 2-3, with report-out session): ***Learner Outcomes***

#### **Mid-April**

Recap results of *Learner Outcomes* brainstorm session

Speaker: best practices in outdoor learning settings, experiential learning, community-based learning, sustainability education

-Break -

Brainstorm session (small groups of 2-3, with report-out session): ***Learning Organization and Environment*** (organizing the learners, process, time, staff, technology, settings – the Grand Central Learning Center and site organization)

#### **Mid-May**

Recap results of *Learning Organization* brainstorm session

Speakers: SRP and Flood Control on “learning setting” opportunities and constraints

-Break -

Brainstorm session (small groups of 2-3, with report-out session): ***Learning Partnerships and Partners***

**Mid-June**

Recap results of *Learning Partnerships* brainstorm session

Speakers: Dan Childers and Monica Elser of GIOS, on CAPLTER learning resources

-Break -

Brainstorm session (small groups of 2-3, with report out session): ***Shared Learning Products / Community-based Projects*** (video documentary project of local agriculture / farms, water reduction design project, etc.)

**Mid-July**

Re-cap meeting; review Report contents

**End of August**

Publish Grant Report

Press Release and PR

**Late September / early October** - Celebration meeting, with commemorative event at the SITE!

**Exhibit C –**  
NFWF Project Logic Model



## Canalscape Grand Central Learning Center Project Logic Model

Inputs	Activities	Outputs
<ul style="list-style-type: none"> <li>Teachers</li> <li>Arizona Forward Staff</li> <li>Grand Central Team</li> <li>GIOS/SoS Staff and students</li> </ul>	<ul style="list-style-type: none"> <li>Workshops</li> <li>Site Planning</li> </ul>	<ul style="list-style-type: none"> <li>Develop Educational Framework</li> <li>Develop environmental/sustainability/local history lesson ideas</li> <li>Link lessons to state standards</li> <li>Develop project ideas for connecting with local community</li> <li>Prioritize Learning Center design features</li> <li>Develop site plan concept</li> </ul>

Short Term	Intermediate	Long Term
<ul style="list-style-type: none"> <li>Environmental/Sustainability/History lesson incorporated into K-12 curriculum</li> <li>Service projects in local neighborhoods</li> <li>Apply for funding for Learning Center design and construction</li> </ul>	<ul style="list-style-type: none"> <li>Increased scores on standardized tests</li> <li>Building community among schools and neighbors</li> <li>Learning Center funding obtained</li> </ul>	<ul style="list-style-type: none"> <li>Improve Dropout Rates</li> <li>Enhance Environmental quality</li> <li>Foster sustainability education</li> <li>Improve quality of life for area residents</li> </ul>

**Exhibit D –**  
Meeting Minutes

## The Grand Central Learning Center Pilot Project – 2012 Summary Report Valley Forward Canalscape Committee

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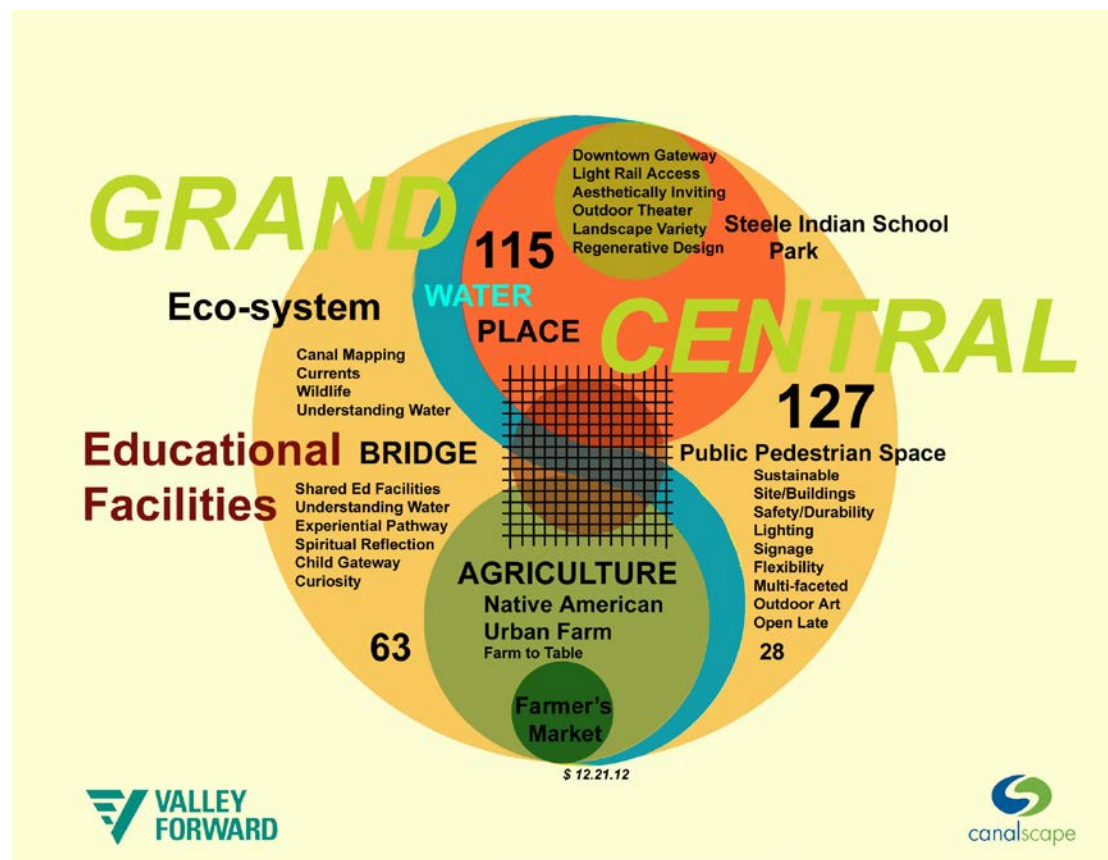
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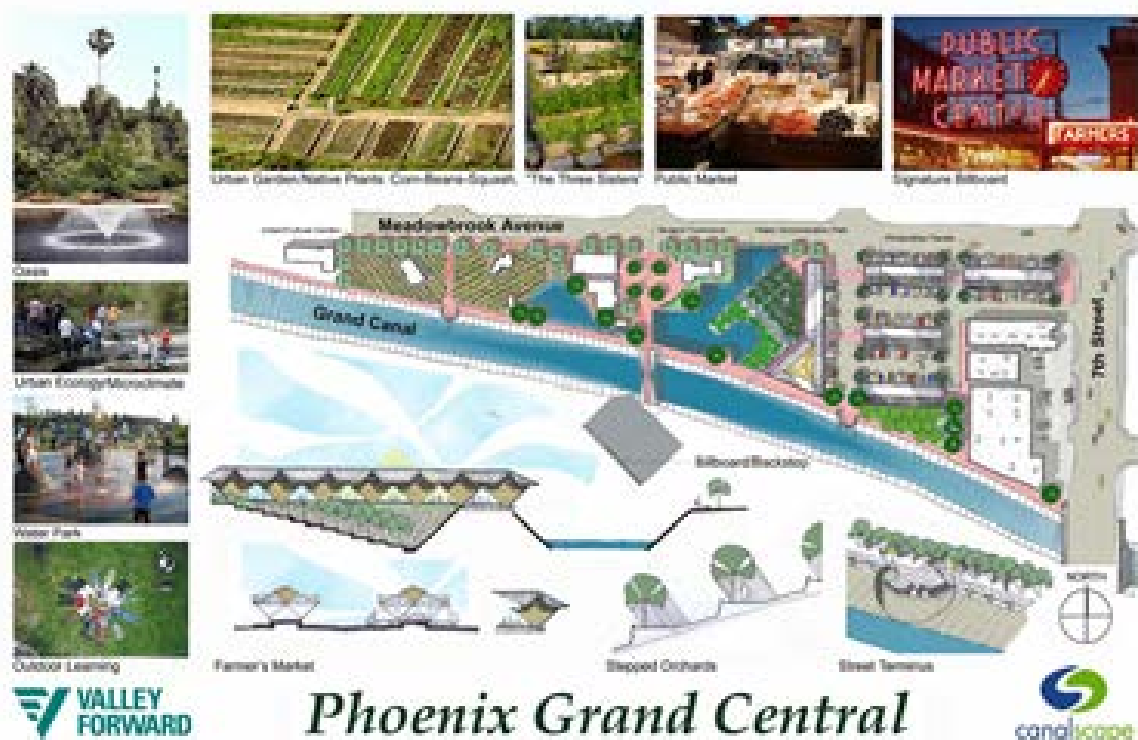
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**Visioning Session #1 - Educational Criteria**

no	concept / issue	ED group votes	Public votes	Total	% of category (rounded up)
<b>A</b>	<b>Public / Pedestrian amenity</b>				
1	bike destination	4	28	32	23%
2	pedestrian friendly	9	11	20	14%
3	pedestrian/water interface	3	13	16	11%
4	user friendly	6	9	15	11%
5	access to Steel Indian School Park		15	15	11%
6	"bridging"		15	15	11%
7	bridges	4	10	14	10%
8	linkages / light rail	2	5	7	5%
9	open into evening		1	1	1%
10	public market		5	5	4%
	<b>SUBTOTAL</b>			<b>140</b>	
<b>B</b>	<b>Curriculum / Education</b>				
11	bullet proof / safety	6	3	9	14%
12	flexibility / multi-use		9	9	14%
13	children's understanding of water	2	6	8	12%
14	shared educational facilities	7		7	11%
15	place of spiritual reflection	4	3	7	11%
16	best practices in education	2	5	7	11%
17	variety of landscapes	1	6	7	11%
18	outdoor theatre	2	4	6	9%
19	sense of place		6	6	9%
20	kids opening up to the World from the site			0	0%
	<b>SUBTOTAL</b>			<b>66</b>	
<b>C</b>	<b>Sustainable Site / Agricultural Site</b>				
21	sustainable site and buildings	3	9	12	12%
22	lighting / signage		12	12	12%
23	wildlife / ecosystems	5	7	12	12%
24	Farm to table concept		12	12	12%
25	urban agriculture	1	10	11	11%
26	regenerative design	1	10	11	11%
27	use of City Aesthetic Funds	3	7	10	10%
28	Native American Relevance(Steele Park)		10	10	10%
29	high density agriculture		13	13	13%
	<b>SUBTOTAL</b>			<b>103</b>	
<b>D</b>	<b>Miscellaneous</b>				
30	"steam" / water theming	1	4	5	2%
31	engage curiosity	1	3	4	2%
32	temporary outdoor art		4	4	2%
33	aesthetically inviting	1	2	3	1%
34	mapping of canals		3	3	1%
35	experiential path	2		2	1%
36	Gateway to Downtown	1	1	2	1%
37	multi-faceted			0	
38	currents			0	
39	Impact of "no water" on kids			0	
	<b>SUBTOTAL</b>			<b>23</b>	
	<b>TOTAL VOTES</b>	<b>71</b>	<b>261</b>	<b>332</b>	



## **Canalscape Grand Central Learning Center Planning Project**

### **Minutes – Meeting #1 on March 27, 2013**

#### **Attendance:**

*(See attached sign-in sheet)*

#### **Central High School / PUHSD**

Elizabeth Toledo, Assistant Principal for Student Opportunities

Schavon Waggoner, Dean of Instruction

Pat Prince, Director of Buildings and Grounds / PUHSD

#### **St. Francis Xavier School**

Kim Cavnar, Principal

Mary Musgrove

#### **Brophy College Preparatory**

#### **Xavier College Preparatory**

#### **Grant Team**

Diane Brossart, Arizona Forward (AZF)

Billie Hanson, Arizona Forward (AZF)

Stephen Thompson, Thompson Pollari Studio (TPS), Canalscape Co-chair

Lynette Pollari (TPS), Canalscape Co-chair, Sustainable Schools grant coordinator

Monica Elser, ASU GIOS Education Coordinator

Omayya Ahmad, GK-12 Fellow, Sustainability Science for Sustainable Schools

#### **Guests**

Jim Duncan, SRP



## **Welcome and Introductions**

Diane Brossart of Arizona Forward began the meeting with greetings to participants, with school stakeholders primarily being derived from Central High School and St. Francis Xavier School at this first planning session. Stakeholders from Brophy College Preparatory and Xavier College Preparatory were not able to attend the meeting due to scheduling conflicts with the busy Easter week. Diane introduced the expansive mission of the newly formed Arizona Forward organization (formerly Valley Forward) and gave an overview of preliminary grant application efforts that were undertaken during 2012. Early grant application efforts focusing on national organizations were re-focused locally, leading to the successful grant application to the National Fish and Wildlife Foundation (NFWF) for this educational planning project, with matching funds from Wells Fargo for additional Canalscape work in 2014. Core grant team members include Diane Brossart and Billie Hanson of Arizona Forward, Stephen Thompson and Lynette Pollari of the AZF Canalscape Committee, and Monica Elser of ASU's Global Institute of Sustainability representing a significant in-kind partner on the grant. Diane emphasized that the NFWF planning project is intended to benefit the partner schools in multiple ways, from development of curriculum to linkages to community partners. The draft agenda and schedule for the planning process was reviewed, with monthly meetings starting in March and ending in August for a total of five primary, planning meetings with school stakeholders. The August meeting is conceptualized as a "recap" meeting, leading to work on the grant report that is scheduled for publication in late September.

## **Goals for Overall Process**

Overall goals for the NFWF educational planning project were further introduced by Lynette Pollari. The goals were shaped and written into the NFWF grant application with the understanding that fleshing-out of the goals and attendant outcomes will be accomplished with school stakeholders. The goals include planning work to produce deliverables and outputs under the grant, team building between the four partner schools, and broad relationship building with project partners that have been working on the project since last year, and some which are still to be determined through current project efforts. Detailed discussions and brainstorming relating to those goals are recorded below, with facilitation of discussions by Monica Elser of ASU GIOS and Lynette.

### **A. Grant Deliverables and Outputs**

Monica Elser introduced the broad range of resources that the ASU Global Institute of Sustainability brings to the project as an in-kind partner, including the Sustainability Science for Sustainable Schools program and GK-12 Fellows, the Ecology Explorers program and the Central Arizona Phoenix Long Term Ecological Research Project and researchers (*see attached flyer on an Ecology Explorers summer teacher workshop opportunity on The Urban Heat Island*). Monica explained the "logic model" that was included in meeting materials, focusing the group's attention on primary "outputs" written into the grant that include:

- Development of the Educational Framework for the project using the "design down" educational planning process
- Development of environmental / sustainability / local history lesson ideas for use by the schools
- Linking of lessons to state standards

- Development of sustainability project ideas for connecting with the community (a minimum of two (2) projects are written into the grant as a curriculum deliverable)
- Prioritization of Learning Center design features
- Development of an updated site plan concept (preliminary Learning Center site plan concept was developed during 2012)

*Additional outputs concepts were suggested by Central High partners, including:*

- Apply knowledge learned in the classroom, especially from the biology and environmental management classes
- Combine science with art to do more interdisciplinary work; create separate units for younger and older students
- The idea of a class project focused on the Steele Indian School park; students could collect data and research literature about the site history, and learn about primary and secondary data sources (for history classes)
- Form partnerships with other schools
- Create opportunities for volunteer and service hours for students; Diane said that AZF can connect the schools with AZF membership, many of whom are engineers, designers, business people; connect inner city kids with inner city jobs

*Brainstorming around “outputs” continued with discussion and concept generation around the (2) sustainability projects.* Lynette said that the grant team would like the schools to visualize the planning process as an iterative process that will include development of the shared “educational framework”, running parallel to development of the sustainability projects (2) and related unit / lesson concepts. She said that school partners should feel free to email her (as project manager) during the next month on any ideas that may come up around sustainability projects and lessons. A range of concepts for the sustainability projects that were brainstormed during the meeting include:

- Ask other teachers and students what they want most from the (learning center) space
- Play with aesthetic art design so that it both draws people to the canal and then creates a learning experience while they're there (like the “downtown net”)
- Create an “outdoor classroom” at the canal where students can come to learn about how the canal works and its ecology; it should be an interactive rather than static classroom
- Connect this “outdoor classroom” space to First Friday events
- Develop a community garden as part of this “outdoor classroom”; many students are very interested in urban agriculture
- Connect and revisit historical tradition with public use of the canal; what brought people to the canal in the past?
- Capitalize on the recreational use already performed in the space including track use, cross country, bike riding, speed walking; staff from the schools use the canal for exercise
- Explore a possible partnership with Phoenix bike sharing program
- Provide senior students with internships to work on Canalscape development; promote engineering education
- Hold K-12 class contests to have students generate planning ideas; winning designs could be rewarded with creator nameplates that can be located at the “outdoor classroom” space

- The idea of canal “landmarks” created by students; the “time capsule” idea
- Have table-top displays at parent nights /open houses at schools to generate interest in the project
- Create a *YouTube* video on the project, that can get the word out to all the schools, their students and families; capture the energy of planning meetings and conversations

## **B. School Team Building**

The second broad goal of the project was introduced as relationship building between the four stakeholder schools through this educational planning project. Stephen Thompson encouraged the schools to work on developing their own “core team” that can cover all the planning meetings in a flexible and efficient manner, with the goal to encourage planning-stage participation. Involvement of core teachers and student groups was also encouraged, with leadership at the meeting agreeing that this is an important strategy for team building throughout the culture of the schools and across the schools. Involvement of student clubs, like environmental clubs was cited as a good way to involve students in the project. Work on the Educational Framework and focus projects will be the foundation for team building across the four schools, with the ability of each school to then spin-off the project with more focused and developed curriculum planning and unit development efforts next fall.

## **C. Relationship Building with Project Partners**

Lynette led a discussion of project partners that have been interested and involved with the project during 2012, and new project partners that have recently been introduced to the grant team. Support of City of Phoenix leadership is seen as critical for the project, with detailed meetings with the City’s Sustainability Officer and Ed Lebow of the Office of Arts and Culture during 2012, along with involvement of staff from the Parks and Planning departments. Other important institutional and private partners that have been involved in the project include Maricopa County Flood Control District staff, other county staff and local developers including Venue Projects and Sunbelt Holdings. A recent meeting that the grant team has had with ASU leadership on the Reinvent Phoenix HUD Sustainable Communities project was discussed, with the goal of the meeting to understand potential connectivity and collaboration that can be developed between the two projects. This is in light of the level of involvement by ASU on the project and the prime location of the project site within the “uptown” district of the Reinvent Phoenix project. Reinvent leadership believe that there may be a potential for the project site to be designated as an “opportunity” site for Reinvent. Lynette asked the schools to connect with Reinvent Phoenix contacts that have been established at each of the schools (*see attached email on school contacts from the Reinvent Director of Community Partnerships, John Harlow*).

Jim Duncan of SRP was introduced to the group as a significant supporter of the project within the last year. Jim presented an overview of SRP’s commitment to public education and local educators, with provision of STEM and literacy resources to support best educational practices and a full range of community outreach strategies employed by SRP Community Outreach staff. He said that SRP is committed to public education about the canal system with the goal for students and their families to understand canal infrastructure management practices, the range of available water conservation and

water quality strategies, and the ecology of the canal system replete with mussels, baby ducklings and bats at night, which Kim Cavnar said are of great interest to elementary and middle level students.

Jim discussed recent environmental art projects that have been showcased in Scottsdale along the canal section between the Soleri Bridge and the Marshall Way Bridge. The project is called the “Canal Convergence / Art + Maintenance” project and it includes the involvement of three primary contributing artists and companies aimed at attracting local families and their children to educational art events around the canal section during a three month period from January to March during which the canal was dried and refilled under the maintenance program. The work ranged from paintings on the bare canal walls during January when the canal was empty, to floating solar powered displays and fabricated metal artwork pieces after the water’s return in February. March 23<sup>rd</sup> and 24<sup>th</sup> was the date for the third of three canal events that SRP hosted with Scottsdale Public Art. He suggested to the group that several pieces of the artwork might like to find a new home, with the potential for relocation of some to the canal section of the project between Central and 7<sup>th</sup> Street. This was suggested as a way to bring public awareness to this section of the canal and to the vision of the project for the future learning center. Jim believes that showcasing of public art in this section of the canals could garner substantial public interest in, and support of, the project. Lynette said that another goal of the project can be to create a strong vision for the project to support application to SRP and the City of Phoenix for aesthetic funds for improvement of the canal right of way between Central and 7<sup>th</sup> Street (SRP manages the aesthetic funds for the City).



***Nodal Water Garden – environmental art in Scottsdale, courtesy of SRP***

#### **D.      *Recap work from 2012***

Stephen Thompson facilitated the last half hour of the meeting and provided a summary of the three school-based meetings on the project that were held during 2012 (with results documented in a short report). He recapped results from the third meeting in October, where a large group of stakeholders from the four schools, the Canalscape Committee and the broader public brainstormed design criteria for the project. Design criteria concepts were catalogued and grouped to display the most favored concepts to least favored as determined by vote counts. Based on participant rating, the highest level of support was given to development of public and pedestrian amenities, curriculum and learning setting features, and urban agriculture and ecosystem settings. Stephen explained the graphic design that resulted from these design criteria. This model will be used to assist in the development of the “learning signature” for the project and as a springboard for future concept generation and planning. The meeting was adjourned at 4:30pm, with agreement that all future meetings will run from 3pm to 4:30pm. Diane Brossart thanked everyone for the good meeting and welcomed participants to contact Lynette Pollari by email with any ideas, concepts and concerns before the next meeting on April 24<sup>th</sup>.

#### **E.      *To Do List: for next meeting***

- As a group, come up with big ideas for the sustainability projects (project based learning / community engagement focus) and identify key teachers that should work on the project
- Identify student clubs at the schools that can be the focus for garnering participants for the Student Workshop; identify the “core” team for each school including administrators, teachers and staff
- Plan for an event with students before the end of the school year, or early fall; maybe in coordination with Reinvent Phoenix
- Consider the potential for relocation of environmental art to the canal section as soon as possible, based on willingness of Jim Duncan to facilitate this exciting opportunity
- Review project schedule before next meeting, for input. There was not time during the meeting to review the proposed schedule in detail, but it was agreed to focus on “shared learner outcomes” at the next meeting, along with presenting big ideas for the two community-based projects.

Next meeting: April 24 at St. Francis library

Objective: Decide upon *shared learner outcomes* + brainstorm *sustainability project* concepts

\_\_\_ *End of Minutes* \_\_\_



**Attachments:**

- Sign-in sheet
- Ecology Explorers Urban Heat Island workshop summer notice (there are still some openings if there are interested middle and high school teachers—contact Monica Elser at [mmelser@asu.edu](mailto:mmelser@asu.edu))
- Email with list of Reinvent Phoenix contacts at the Schools

The Grand Central Learning Center Project - Meeting #1, March 27, 2013

SIGN IN SHEET:

Name	Organization	Email	Phone
1. Pat Prince	Phoenix Union HSD	prince@phoenixunion.org	602-764-1615
2. Elizabeth Toledo	PVHSD Central H.S.	toledo1@phoenixunion.org	764-7514
3. Savannah Waggoner	PUTHSD, Central H.S.	waggoner@phoenixunion.org	602-240-2408
4. Diane Brossart	AZF	brossart@arizonaforum.org	602-240-2408
5. Billie A. Hanson	AzFWD	bhanson@arizonaforum.org	602-240-2408
6. Kim Canner	St. Francis Xavier School	kim.canner@sfpx.org	
7. Jim Duncan	GRP	jim.duncan@sfpxnet.com	602-230-5380
8. Monica Elser	ASU, GIOS	mmeiser@asu.edu	480-965-6046
9. Mary Musgrave	SFPAWIS	mary.musgrave@sfpx.org	
10. Lynette Polunin	AZF + AZU	lynette.polunin@asu.edu	
11. Stephen Thompson	Thompson Polunin Studio	Thompson@TP-studio.com	
12. Omarya Ahmad	ASU SOS Fellows	ahmad@asu.edu	
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

# The Urban Heat Island: Linking Science, Society, and Technology



Living in the desert has always been a challenge for organisms, including people. There is too little water and, in most cases, too much heat. As Phoenix has grown, the natural environment has been transformed from native desert vegetation into structures built by people, from buildings, to parking lots, to roadways. How has this impacted our urban temperatures, and urban biodiversity? How has this impacted the people living here? How can we mitigate these effects through engineering and become a more sustainable city? Explore these questions in a multidisciplinary workshop hosted by ASU's Global Institute of Sustainability.

## You will:

- Investigate the Urban Heat Island phenomenon
- Explore the impact of the Urban Heat Island on people and other organisms
- Experience an engineering design project challenge to mitigate the effects of urban development
- Link to literacy standards with *Chain Reaction Magazine v7*

## Who should attend:

Middle school science teachers

## What you will receive:

- \$300 per teacher as stipend for attending all three days
- Urban Heat Island instructional unit linked to AZ standards
- Certificate of completion from ASU for 20 hours
- Lunch provided
- Classroom sets of *Chain Reaction Magazine v7*

## When:

- June 25-27, 2013 9:00-3:30

## Location:

- ASU, Wrigley Hall, Room 481

## To Apply:

- Name, address, phone, e-mail (Home and School)
- Current subjects you are teaching
- Brief statement of how you will use this training in your classroom
- Please limit your application to one page
- Letter of reference from principal optional
- Teams from schools are encouraged

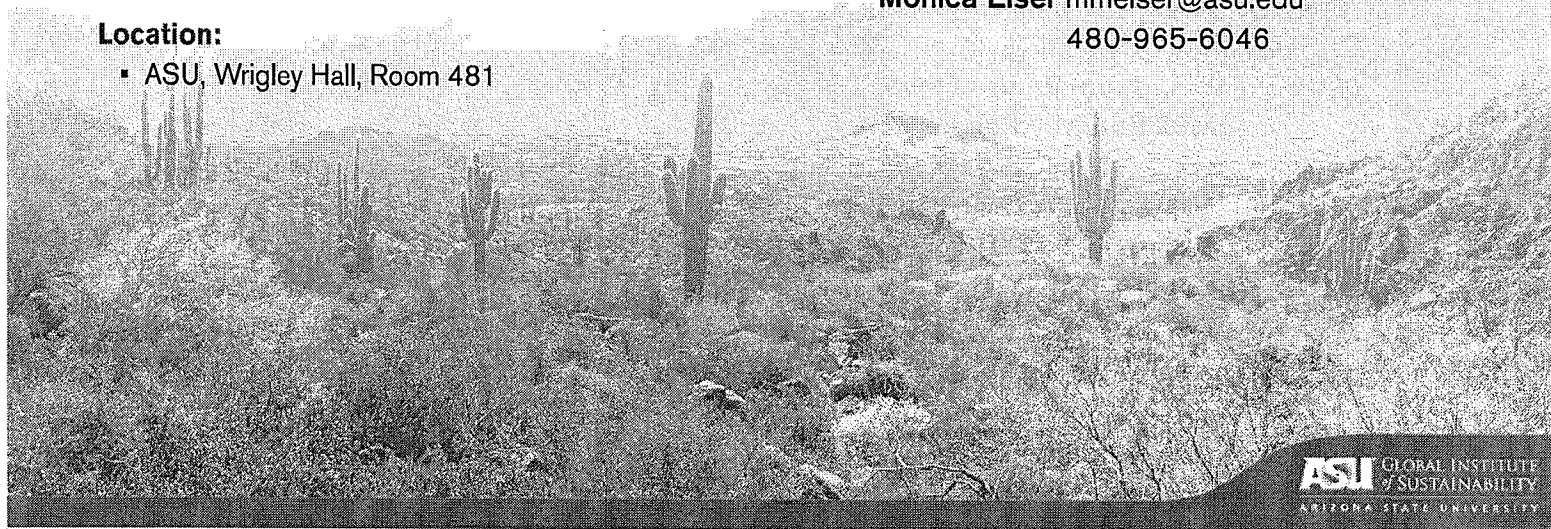
**Applications must be  
received by March 29th!**

## Mail, Fax, or E-Mail to:

Ecology Explorers  
Global Institute of Sustainability  
Box 875402  
Tempe, AZ 85287-5402  
Fax: 480-965-8087  
E-mail: [ecology.explorers@asu.edu](mailto:ecology.explorers@asu.edu)

## For more information contact:

**Monica Elser** [mmelser@asu.edu](mailto:mmelser@asu.edu)  
480-965-6046



## Lynette Pollari

---

**From:** John Harlow [johnharlow7@gmail.com]  
**Sent:** Tuesday, March 26, 2013 4:10 PM  
**To:** Lynette Pollari  
**Cc:** Matthew Cohen (mccohen@asu.edu); Monica Elser; Stephen Thompson; 'Billie Hanson' (bhanson@arizonaforward.org); Diane Brossart (dbrossart@valleyforward.org); Lynette Pollari  
**Subject:** Re: Brophy, Xavier, Central and St. Francis stakeholders  
Sorry, Lynette, for the delay.

Our project is crazy with our events last weekend and this weekend. Thanks for the reminder!

The contacts I have are as follows:

- John Buchanan [jbuchanan@brophyprep.org](mailto:jbuchanan@brophyprep.org) (602) 264-5291 x6294 Brophy College Preparatory Director of Security
- Art DeCabooter [awd1941@yahoo.com](mailto:awd1941@yahoo.com) Xavier College Prep Strategic Planning Committee Head
- Patti Franz [pfranz@brophyprep.org](mailto:pfranz@brophyprep.org) (602) 264-5291 ext. 6365 Brophy College Preparatory Director of Development
- Joe Helm [jhelm@brophyprep.org](mailto:jhelm@brophyprep.org) (602) 264-5291 x6430 Brophy College Preparatory Brophy Business Manager
- Cristina Hidalgo [hidalgo@phoenixunion.org](mailto:hidalgo@phoenixunion.org) (602) 764-7570 Central High School Community Liason
- Kris Scardello [kscardello@cox.net](mailto:kscardello@cox.net) St. Francis Xavier Roman Catholic Parish President of Parent's Association
- Sam Sprague (602) 400-0040 St. Francis
- Maureen Webster (602) 263-1266 St. Francis Former Head of Catholic Social Services

That's just for Brophy, Xavier, St. Francis, and Central, but I have contacts at Osborn Middle and the area charters, if you'd like those as well.

Sorry again for the delay.

John Harlow  
Reinvent Phoenix (ASU)  
Director of Community Partnerships

(480) 217-6333  
809 E Garfield St #4  
Phoenix, AZ 85006

On Tue, Mar 26, 2013 at 3:09 PM, Lynette Pollari <[Lynette.Pollari@asu.edu](mailto:Lynette.Pollari@asu.edu)> wrote:

John,

3/27/2013



## **Canalscape Grand Central Learning Center Planning Project**

**Minutes – Meeting #2 on April 24, 2013 at ST. Francis Xavier, Jr. High Commons**

### **Attendance:**

*(See attached sign-in sheet)*

### **Central High School / PUHSD**

Julia Perry, teacher

Pat Prince, Director of Buildings and Grounds / PUHSD

### **St. Francis Xavier School**

Kim Cavnar, Principal

Cindy Fernandez, Teacher

Paul Russo, Security and Facilities Coordinator

### **Brophy College Preparatory**

### **Xavier College Preparatory**

### **Grant Team**

Diane Brossart, Arizona Forward (AZF)

Billie Hanson, Arizona Forward (AZF)

Stephen Thompson, Thompson Pollari Studio (TPS), Canalscape Co-chair

Lynette Pollari (TPS), Canalscape Co-chair, Sustainable Schools grant coordinator

Monica Elser, ASU GIOS Education Coordinator

Mady Tyson, GK-12 Fellow, Sustainability Science for Sustainable Schools

### **Guests**



## **A. Welcome and Introductions**

Diane Brossart of Arizona Forward welcomed everyone to the second planning meeting for the Grand Central Learning Project, with a special welcome to two new teachers, one each from Central High and St. Francis Xavier!

## **B. Project Management Issues**

It was noted by Lynette Pollari that work to identify a core project team from each school is expected to be an ongoing initiative across the next several months, especially in light of the potential for an environmental art project to become the major sustainability project under the NFWF grant and requiring leadership investment from the school teams. It was agreed that monthly meetings should continue through May (29<sup>th</sup>) and June (26<sup>th</sup>), with the month of July to be taken-off for summer break. The date for the August meeting is tentatively set for August 28<sup>th</sup>.

The potential for an environmental art project was discussed with the group. SRP has indicated that a partnership can be developed between SRP, the Scottsdale Public Art program, the City of Phoenix Office of Arts and Culture, Arizona Forward and the four partner schools to develop and implement a canal-based environmental art project and event(s) for the Grand Canal project. The Scottsdale Public Art program will be installing new "Canal Convergence" art in the Scottsdale canal at the end of 2013, with the potential for some of the art to be re-located to the Grand Central Project's canal section in early 2014 to commemorate the Grand Central Learning Center Project and NFWF Grant. Some broad goals of this project will be to build public understanding of the canal system and its role in supplying water to the Valley, commemorate the future site of the Grand Central Learning Center and to act as the major sustainability project under the NFWF grant. Lynette asked the group whether the schools would be in support of this project, and there was a resounding reply of agreement with the potential plan. Lynette said that the AZF team will be meeting with Jim Duncan of SRP and Donna Isaac of Scottsdale Public Art the next day (April 25<sup>th</sup>) to discuss potentials and timing, and will bring back results to the May meeting for further discussion.

A draft base map for the project area was reviewed with the group, with several corrections required to correctly portray the property limits for each of the four schools for planning purposes. Corrections to the base map will be accomplished as discussed. Kim Cavnar suggested that the base map should include information on local businesses, in efforts to bring businesses in the vicinity into the project plan. Everyone agreed that this is good idea.

### **C. Sustainability Project Ideas**

This portion of the meeting was divided into three sections that included a brief update on project concepts generated at Meeting #1, review of concepts generated by the ASU GIOS Sustainable Schools Fellows in a separate session, and brainstorming of new concepts. The ASU Sustainable Schools project based learning plan was introduced as a resource for teachers (see attachment).

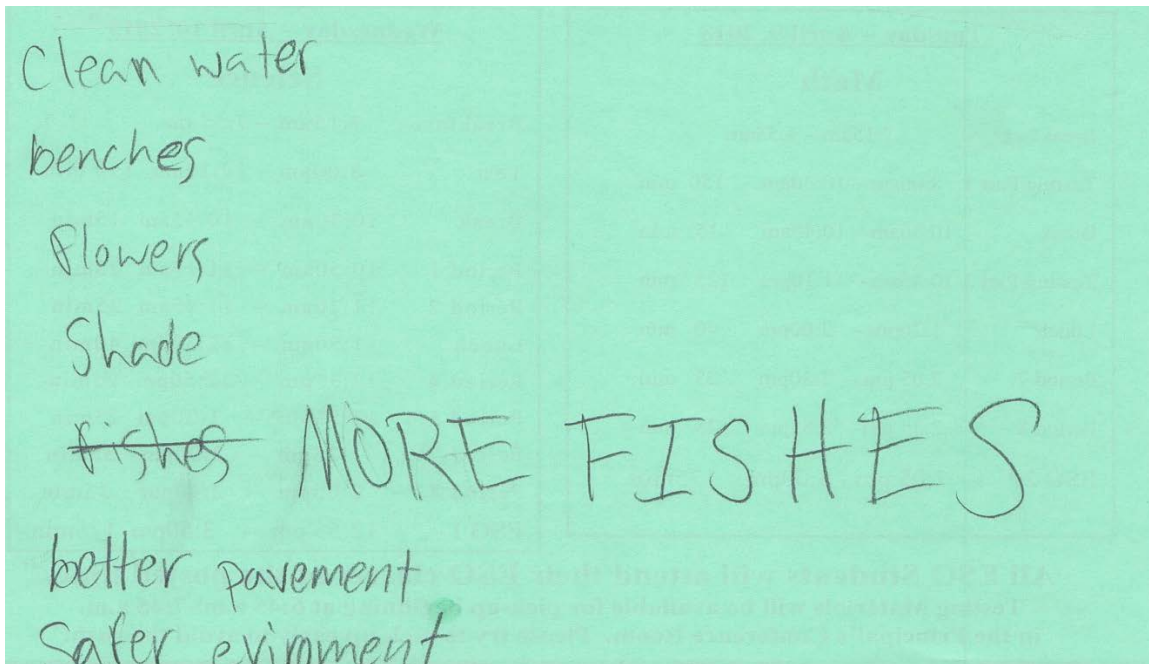
Mady Tyson, one of the ASU GIOS Sustainability Science for Sustainable Schools (S4) Fellows provided an overview of project concepts generated by Sustainable Schools Fellows during their April 8<sup>th</sup> class meeting. Five different ideas were presented, with two of them focusing on development of shade structures (Hohokam inspired and solar panel focused) that can provide shade, architecturally diversify the space and visually entice people into this section of the canal (see attachments for Memo with full discussion of S4 brainstorming).

The bulk of the session included additional brainstorming of project concepts by the group, along with unveiling of concepts that Julia Perry's (Central High) students generated for the project. There was much excitement about the student concepts, so it was decided that the AZF team should create a standard "flyer" to solicit student ideas for the project. This flyer will be sent to stakeholders the week of May 6<sup>th</sup>.

#### **Central High School Student concepts for the Grand Central Learning Center Project include:**

- Colorful; student mosaics
- Artistic drawings
- Benches, hang out area
- Benches for fishing
- Fast food, snack bar
- Local stores
- Flowers, wildflowers
- Skateboard area
- Naturalistic trails, trails surrounded by rocks
- Long sidewalk for running, skating, hiking
- Walkways
- Slides and swings
- Trees
- Shade
- Green house
- Adequate trash cans
- Clean water, drinking fountain
- Water fountains
- Connection to the park
- Less chain link fencing; feels like a jail
- Pretty fences so kids won't fall in

- Milkweed for the monarchs
- Very green
- Water park, clean park, public pool that's not expensive
- River education, partner with Audubon
- Real desert plants
- Public art to reduce graffiti
- Student tiles
- Tobacco free, cancer park
- More fishes
- Better pavement
- Safer environment
- Bleachers
- Beach park
- Dog park
- Basketball court



***Student Input from Central High School***

**New concepts by group:**

- Feel safe
- Engaged mobile classroom potentials
- Connect with Steele Indian School Park
- Link with local businesses
- Interactive learning space
- Transparent, interdisciplinary classroom

- “Hawk crossing” potential
- Develop “Bat Bridge” – bats like a specific type of structure; they can provide a huge draw at sunset; they eat 2x their body weight; contact BLM /Audubon about “River Pathways” program
- Art that can “manage” the seasons (not fade, etc.)
- Use engineering ideas with kids; grassy wall that they can use, play on
- Need good edge on canal, like Scottsdale
- Create “territoriality” through paving systems; sense of place, celebrate entry to area
- Decrease light pollution with lighting design; site lighting critical for safety and aesthetics
- Shade structures critical
- Learning Center with three-section biotic community learning landscape; focus on native species (wildflowers, birds, wildlife)
- “Giving Garden” like in Glendale; teaches kids about giving and gardening; great volunteer potentials
- Art with rotating schedule; places for student art; student art competitions
- Student art created from waste from canal improvement projects (S4 concept); student ownership of the space
- Create bridge at PUHSD parking lot, to cross canal and connect with north entry to Steele Indian School Park; bridge not just a bridge, but a bridge as a “park”
- Solicit Native American involvement; connect with Dede Devine of Native American Connections

#### **D. Stakeholder Session #2: Shared Learner Outcomes**

The team was able to spend time brainstorming learner outcomes for the Grand Central Learning Center’s Educational Framework. The range of learners addressed in the session included students, their parents and the broader community. The following broad “learner outcomes” were suggested:

- “Gathering of community” is essential
- Connection to environment, the past and a sustainable future
- “Contributors to community”
- Investment in “growing community”
- Understand links between communities
- Understand complexity of “systems” (through the canals)
- Pride in community
- Knowledge about water systems, the canals
- Understand connections between nature and art; the need to be “creative”

#### **E. Wrap and Next Meeting:**

The meeting was concluded through congratulations to everyone on the good work to-date on generation of learning project ideas, Educational Framework content and Learning Center site concepts. Lynette said that she will work through all the concepts to “bundle” them, for further exploration and development of primary project themes.

Next meeting: May 29<sup>th</sup> at St. Francis Xavier Library

#### Topics:

Discuss: Sustainability Project and Event Plan – “Public Art as a vehicle for Sustainability Education”

Brainstorm: ***Learning Organization and Environment***

\_\_\_ *End of Minutes* \_\_\_

#### **Attachments:**

- Sign-in sheet
- Sustainable Schools Project Ideas MEMO
- ASU GIOS Sustainable Schools “project based learning plan”

The Grand Central Learning Center Project - Meeting #2, April 24, 2013

SIGN IN SHEET:

Name	Organization	Email	Phone
1 Lynette Pillen	TPS		
2 Julia Perry	Central HS	jerry@phoenixunion.org	602-764-7500
3 Billie Hanson	Az FWD		
4 Monica Elser	ASU / GIOS	mnelser@asu.edu	
5 Cindy Fernandez	SFXS	cindy.fernandez@sfxphx.org	
6 Kim Canner	SFXS	kim.canner@sfxphx.org	
7 Paul Russo	SFXS	PAUL.RUSSO@SFXPHX.ORG	602.708.9491
8 Pat Prince	Phoenix Union HS Dist.	prince@phoenixunion.org	602-764-1615
9 Lady Tyson	ASU / GIOS	mltyson@asu.edu	602-240-2408
10 Diane Brossart	AZF	dbrossart@arizonafernd.org	
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April 8, 2013

*Canalscape Grand Central Project - Brainstorming Session with ASU's Sustainability Science for Sustainable Schools Program*

Attendees:

Lynette Pollari, Thompson Pollari Studio; Sustainable Schools Project Coordinator; Canalscape Co-Chair  
Steve Thompson, Thompson Pollari Studio; Canalscape Co-Chair  
GK-12 Fellows: Omayya Ahmad, Shawn Fink, Jen Fuller, Colin Kunzweiler, Julie Ripplinger, and Madeline Tyson

Steve Thompson attended ASU's Sustainability Science for Sustainable School's (S4) 2-hour, weekly meeting as a guest to present the Canalscape Educational Planning initiative and illicit project ideas from the program's Fellows. Thompson spent a little over an hour giving an overview of the Canalscape initiative to the fellows, which included information on Arizona's historic connection to the canals and educational planning strides made during past initiative meetings with participating school stakeholders. The remainder of the visit was utilized as a brainstorming session. The group of fellows broke into 2 teams of 3 people each, to discuss and map-out potential sustainability project concepts relating to the Grand Central Project.

The Fellows are all current graduate students whose degree programs have sustainability as either a primary or secondary focus. As Fellows in the S4 program, they specialize in helping K-12 schools integrate sustainability into curriculum, campus, and community endeavors. Results from the brainstorming session display a clear sustainability influence as a result of the Fellows' education and participation in the sustainability science initiatives.

The first team focused on defining and presenting 3 project concepts for the Canalscape space:

1. *Create a permanent, museum-like display to transform the primary pathway from Indian Steele Park to the Canalscape site (via Central's parking lot open space) into an interesting walking tour.* The purpose of the sprawling display would be two-fold: (1) educate the public about Arizona's historic relation to the canals and the people who use them and (2) draw pedestrian traffic from the park to the Canalscape site.



2. *Build Hohokam and other historic native inspired structures inside the Canalscape site precinct to provide shade, architecturally diversify the space, and visually entice people to visit and utilize the space.* The architectural structures that provide shade are also good strategies for cooling the space without using water—an important consideration in a desert city.
3. *Reclaim waste recovered from the space during construction as art to display in the final Canalscape space.* The project could be used as a mechanism to engage students attending nearby schools, possibly as a contest, and create a sense of ownership.

The second team focused brainstorming around 3 main ideas.

1. *Create Native American inspired gardens (Corn, Squash and Beans) inside of giant pots that reflect traditional Native American pottery designs.* Classes in the schools can be assigned or volunteer to research, design, manufacture, plant and maintain individual pots. These pots would be an opportunity to teach interactively about food systems, local history, and the significance of historic tribal farming traditions and species, to involve students in maintaining their community, and to aesthetically enhance the surroundings.
2. *Display models of Phoenix to represent different periods in history and highlight the changing canal system throughout the years.* These models could start with a modern day Phoenix and go back in time as people walk along the canal. This will allow an opportunity to have discussions about the history of Phoenix and where the city is headed.
3. *Install solar panels as shading structures along the canal to power white lights that would turn on at night.* This would improve the safety of the canal and provide iconic reflection, which would make it a beautiful place to walk in the day and night. It will also be a source of learning for the students about solar energy. Student art projects could also be displayed and housed under the shaded areas to provide a public venue for the schools to demonstrate their talent and public value.

S4 Fellows look forward to working with the school stakeholders to bring 2-3 project concepts to planning fruition under the grant. The S4 program is excited to collaborate on the Canalscape initiative, and will have representatives present at upcoming meetings.

\_\_ End of Report \_\_

## PROJECT PLANNING FORM<sup>2</sup>

Project title: \_\_\_\_\_

\_\_\_\_\_

Teacher(s): \_\_\_\_\_

\_\_\_\_\_

School: \_\_\_\_\_

\_\_\_\_\_

Grade level(s): \_\_\_\_\_

\_\_\_\_\_

Subjects: \_\_\_\_\_

\_\_\_\_\_

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<sup>1</sup> <http://www.bie.org/>

<sup>2</sup> Adapted by GK-12 Sustainable Schools project at Arizona State University to include sustainability and teamwork questions, and to meet the needs of a school-wide project.

## ***Individual Teacher's Plan for Student Learning***

Identify the content standard that students will learn in your part of the project (2-3 ).

Identify key skills students will learn in your part of the project.  
List only those skills you plan to assess (2-4).

Explain how this is a sustainability project. In what ways are environmental, social and economics issues built into the project?

## ***Individual Teacher's Plan for Assessment***

<b>Step 2: State the criteria for exemplary performance for each of your products:</b>
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Product:
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Criteria:
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Product:
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Criteria:
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Product:
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Criteria:
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## ***Individual Teacher's Plan* for Managing Team Dynamics**

**Will students be working in teams for any part of the project? If so,**

How will you teach the team skills they need to be successful?

How will you insure individual accountability? What will constitute the evidence that all students participated and all students learned?



## Individual Teacher's Plan for Managing the Process

List preparations necessary to address needs for differentiated instruction for ESL students, special-needs students, or students with diverse learning styles.

How will you and your students reflect on and evaluate the project?

- ☐ Class discussion
- ☐ Student-facilitated formal debrief
- ☐ Teacher-led formal debrief
- ☐ Individual evaluations
- ☐ Group evaluations

☐ \_\_\_\_\_

☐ \_\_\_\_\_

*What do you expect to learn from this project?*

## Individual Teacher's Map of Your Part of the Project

What do students need to know and be able to do to complete the tasks successfully? How and when will they learn the necessary knowledge and skills? Look at one major product for the project and analyze the tasks necessary to produce a high-quality product.

**Product:**

KNOWLEDGE AND SKILLS NEEDED	ALREADY HAVE LEARNED	TAUGHT BEFORE PROJECT	TAUGHT DURING PROJECT
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

What project tools will you use? <input type="checkbox"/> Know/need to know lists <input type="checkbox"/> Daily goal sheet <input type="checkbox"/> Journals <input type="checkbox"/> Briefs <input type="checkbox"/> Task lists <input type="checkbox"/> Problem logs <input type="checkbox"/> Peer evaluations	<input type="checkbox"/> <hr/> <input type="checkbox"/> <hr/> <input type="checkbox"/> <hr/> <input type="checkbox"/> <hr/>
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*Do the products and tasks give all students the opportunity to demonstrate what they have learned?*



## **The Grand Central Project - Educational Framework Planning Process**

### **Meeting Minutes #3– May 29, 2013**

#### **Welcome and Introductions**

Diane began with welcomes to this, the third of the Educational Framework Project meetings under the NFWF grant. Introductions were made around the table and the sign-in sheet was passed for the attendance tally (see attached).

#### **Project Management issues**

Project Manager, Lynette Pollari began this section by clarifying that this early part of every meeting is intended to allow project participants to bring all Grant Central project administrative, curricular, staff and project-based issues to light for discussion and resolution. Stakeholders should be encouraged to bring all issues to the table at this meeting, in order to collaborate on a shared and approved process and products. Lynette said that stakeholders should feel free to email or call her with any ideas and concerns before and after meetings.

Issues discussed included:

- Summer schedule: the next meeting is scheduled for June 26<sup>th</sup>, with July off for summer. Location for meeting to be confirmed.
- Review of planned deliverables and schedule under NFWF Grant:
  - Deliverables include development of the Educational Framework, update of the Development Plan site concept plan, and development of a minimum of (2) sustainability project plans that can be utilized by all the schools for fall projects.
  - The potential for the February 22, 2014 School / Public event was discussed in great detail. A public event can be utilized as a target and focus to support development of two sustainability projects under the grant. Multiple project ideas are already starting to rise to the surface around the “Event” concept, so there should be no problem in exceeding NFWF grant expectations for the two learning projects.
  - Grant work and NFWF report to be complete by end of Year; additional work on the February 22<sup>nd</sup> Public Event will continue through early 2014.

- The NFWF Final Report is intended to be of value to all the schools and to be a model for community-based educational planning initiatives.
- Partnership building activities: because the Grand Central project has the potential to be a broad “anchor” for multiple planning activities that are going on within the City of Phoenix and metro area, it will be important to track parallel and related projects and planning initiatives including the Reinvent Phoenix HUD project, the City of Phoenix Growth Plan, and the CAPLTER project over at ASU to gather together as much synergy and energy as possible around Canal planning initiatives. Lynette will be responsible for coordination activities between related initiatives including:
  - Coordination with Reinvent Public meeting in October (i.e. specific presentation by the Grand Central team to be scheduled)
  - CAPLTER may be looking for an opportunity to connect with the Grand Central project for a fall public outreach initiative and/or event
  - Focusing in on early fall pre-event may be of value, to build excitement leading to the February 2014 big school / public event
- Core Project Teams for fall sustainability projects : teams will continue to be built for maximum teacher and student involvement in the two (2) fall projects and in planning for the February 2014 public event
  - GIOS Sustainable schools Fellows will be back for Fall work to assist teachers with the sustainability projects
- Student Flyer for project “visioning” and input:
  - The flyer in its current form (see attached) was used by Julia Perry’s Central High classes; new data from Central High was received at this meeting, with two different data sets provided to-date (thanks Central!)
    - Student input is generally focused on creation of a more comfortable, inviting and interesting environment for learning and recreation; want benches, shade, trees, more fish and reduction in fencing
  - Flyer can be revised; input on design and content welcome
  - Data requested as possible from Xavier, St. Francis and Brophy with an early Fall date projected for receipt of data
  - Data analysis will be ongoing with final reporting through the NFWF Final Report, Fall 2013

### **Sustainability project(s)**

- **Event Plan review and input:** Diane Brossart and Heidi Curiel of Arizona Forward provided an overview of a draft Event Plan (see attached) that was developed during the last couple weeks for general review and input by school stakeholders. Diane said that the event plan is provided as a first rough pass, to create discussion around goals for the February 22<sup>nd</sup> Public Event which can be aimed at celebration of the Canalscape Initiative and work accomplished on the Grand Central Learning Center Project under the NFWF grant. The following issues were discussed:

- The background to development of the draft Event Plan was discussed, with an overview of a couple coordination meetings with SRP and the City of Scottsdale Public Art that were held to brainstorm the potential for relocation of Canal Confluence artwork from Scottsdale to the Grand Central location to create excitement about the project. The meetings have built excitement around the idea of the Public Event that can be a “coming out party” for the Arizona Forward Canalscape initiative, a celebration of work completed by AZF and Schools team under the NFWF grant, and also become an initiative to spur investment in real brick and mortar improvements to this important section of the Grand Canal for the benefit of the schools and larger community.
- Everyone agreed that a Public Event in February of 2014 is a good idea for community building between the schools and larger community, for sustainability project development and curriculum development, and for building awareness of the canal system and active canal proponents including Arizona Forward, SRP and the City of Phoenix.
- Craig Coppola of Brophy said that he believes all school stakeholders will be able to get behind the “event” as long as it is “educational” and “school driven”. The group agreed that the primary audience should be the students and their families.
- It was agreed that February 22<sup>nd</sup> should be the target date, and that the focus will be on the core “audience” of the schools and their community.
- Jim Duncan said that SRP is very excited about the Grand Central Project and the February 2014 event, and has an entire team assigned to begin working with AZF and the schools to make it happen. Jim said that he knows that this can be a special project and that the 2014 event will become shaped over time by positive involvement of interested partners. He said he knows that it is the “process” that is important and that the Event can be a wonderful anchor for the summer and fall planning process. He thinks the only problem is that we’ll collectively have too many good ideas, and it will be hard work to pare all ideas down to a clear set of concepts and a concise event plan.
- Diane Brossart said that the plan will be to organize into two teams working on the project starting in the fall, including the current “school team” working on completing the Educational Framework and NFWF grant products + Report, and a separate “event team” working on Event planning for February’s Public Event.
- Concepts for the February Public Event were discussed:
  - Include a kick-off event like a fun run or bike; Craig Coppola suggested the theme of “human powered” transportation
  - The particular challenges of pulling off a safe bike/run event through town was discussed, and it was agreed that all activities like this can stay “on site” through connection to Steele Indian School Park and the creation of an “on-site loop” traveling north/south between Central Avenue and 7<sup>th</sup> Street

- Primary involvement of school choirs, bands, music groups and performing arts groups is desired; no need for outside musicians or dancers, as the schools have their own!
- Stress involvement of school clubs; science experiments on display
- Concept of creation of a “outdoor classroom” environment, both for the event and as a major learning space/place/environment that will be developed in the future
- The idea of a student environmental art competition in the Fall, with artwork displayed along the canal for the February Event (an “art show”); some of the artwork could even been installed for longer periods of time
- Installation of art within the canal at the site of the future bridge, whether it is student art or relocated art from the Scottsdale Canal Convergence project, or both
- The potential for an early Fall event, with positioning of “art work “ on both sides of the future bridge site to create public interest leading to the February 2014 event

○ **Student project potentials:**

- Development of artwork with sustainability themes (water, heat/shade) and re-use of materials found in the canals during cleanup was discussed as the potential focus for student projects for fall.
- Development of project plans for (2) sustainability projects is required under the NFWF grant. It makes sense to focus during summer and fall to create project plans and run the projects with students to create displays and artwork that can be displayed at the February 2014 event, and be documented as the sustainability projects for the grant and for curriculum materials for the schools.
- The August meeting can be scheduled to focus on creating “plans” for the two (2) sustainability projects.

### **Stakeholder Session #3: *Learning Organization and Environment***

Because there were only 15 minutes left in meeting time, it was decided to adjourn early and focus at the next June meeting (4<sup>th</sup> meeting of six) on brainstorming the Grand Central “learning organization” concepts. This session will provide wrap-up for spring sessions, with the fall sessions focusing on Learning Environment, Learning Partnerships and the (2) shared Learning Projects / Products. A hand-out on “learning organization” (see attached) was distributed for review, with the follow topics to be brainstormed on June 26<sup>th</sup> at the next meeting before the summer break.

Groups for Learning – what types of groups (variety, special needs, etc.)

Learning Process – characteristics (interdisciplinary, PBL, etc.)

Learning Time – hours of use

Learning Tools – technology issues, hands-on tools, etc.

Learning Settings – types / range of settings within future Learning Center site, and within Canal right of way limits

Lynette thanked everyone for the good input received at this meeting, and said that minutes will be forthcoming along with an invite to the next June 26<sup>th</sup> meeting.

*- - - End of Minutes - - -*

#### **Attachments:**

- Sign in sheet
- DRAFT Event Plan
- Student Flyer
- “Design Down” Learning Process / section of example report



# The Grand Central Learning Center Project - Meeting #3, May 29, 2013

## SIGN IN SHEET:

	Name	Organization	Email	Phone
1	Joe Helm	Brophy College Prep	jhelm@brophyprep.org	602-264-5281
2	Julia Perry	Central HS	jperry@phoenixunion.org	602-50
3	MARY Musgrove	St FRANCIS	mary.musgrove@SFXPHX.org	7439
4	PAUL RUSSO	SFX	PAUL.RUSSO@SFXPHX.ORG	602-708-9441
5	Jim Duncan	SRP	jim.duncan@srpnet.com	602-236-5380
6	LEEANN SPANOS	SRP	leeann.spanos@srpnet.com	(602) 236-3416
7				
8	LYNNE POLLAK	A2F / TPS		
9	Stephen THOMPSON	A2F / TPS		
10	Diane BRUSSART	A2F		
11	Heidi Curiel	A2F		
12	Billie HANSON	A2F		
13				
14	Craig Coppola	Xavier		602-9543762
15	Elizabeth Toledo	Central		
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17				
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# ARIZONA FORWARD

## The Grand Central Learning Center Project Proposed Canalscape Event: Saturday, February 15, 2014

### **Proposed Concept:**

Commemorate Canalscape through a public event triggering increased foot traffic and awareness of our Valley's canal system and its future potential.

### **Theme:**

Position the Grand Canal as a public domain for learning and community life for professionals and students. Spur interest through the unveiling of the Learning Center Program and garner further engagement in Canalscape projects.

### **Target Audience:**

Partner Schools – students, teachers, administrative staff, parents  
Neighborhood + general public  
Community at large  
Tribal community + farmer's market community  
AZF membership  
Other project partners – see list  
Media

### **Goals & Objectives:**

- Position Arizona Forward as the leading champion of Canalscape, embracing the canal system as gathering spaces for recreation, connectivity and sustainable development
- Build public knowledge of the canal system and its role in supplying water to the Valley and its potential to serve as a vital urban hub
- Commemorate the future site of the Grand Central Learning Center
- Install environmental art in the Grand Canal at the location of the future "learning bridge"
- Grow support for a future (2014) ROW improvement project supported by City of Phoenix aesthetic funds
- Serve as a sustainability project deliverable under the National Fish and Wildlife Foundation grant; engage students in experiential projects focusing on the canal system – its benefits and contributions to healthy, sustainable lifestyles

### **Venue:**

The Grand Canal future "learning bridge" site, just east of Seventh Street

**Proposed Event Details and Activities:**

9 a.m.-1:30 p.m., Saturday, February 15

- Event kickoff featuring a fun bike tour or run/walk along the canal from Scottsdale Waterfront to the Grand Central site to emphasize regional connections
- Educational booths and displays from appropriate community organizations
- Farmers market vendors and food carts
- AIA Canalscape Competition Boards on display
- Tribal themed music
- Potential giveaways
- Art installation as program centerpiece

**Project Partners:**

Arizona Forward

ASU GIOS + Sustainable Schools + Ecology Explorers + CAPLTER

Central High School, St. Francis, Xavier and Brophy

SRP

Maricopa Flood Control District

City of Phoenix (art contract issues)

City of Scottsdale Public Art

Maricopa County Flood Control District

Local farmers markets and growers

Native American Connections

Local business community

**City of Phoenix Role:**

- Representation on Event Planning Committee
- Symbolic ribbon cutting event with key speakers (Mayor Stanton, principals from the education community, Arizona Forward)
- Event promotion through communication vehicles
- Event management support (logistics)
- In-kind contributions

**Budget & Financing:**

Once an event plan is finalized a budget will be developed and sponsors/in-kind contributions solicited. Arizona Forward will serve as project manager in this regard.

**PRE-Event Teaser:**

September 2013 – place Art pieces on north and south sides of the Grand Canal at future “learning bridge” location to create spatial “link” and “axial connection” across the Canal. Begin to create awareness of Canalscape and a future project/initiative.



**PLEASE SHARE YOUR IDEAS**  
**For the**  
**Canalscape Grand Central Learning Center Planning Project**



Have you noticed the canal behind your school? Have you ever thought about it as a place to learn? Or gather with your friends? What would make the canal a more inviting place?

Arizona Forward, a local organization promoting sustainable and livable communities in the Phoenix area is interested in getting your ideas as they formulate a plan to re-energize a segment of the Phoenix Grand Canal that is adjacent your schools (between 7<sup>th</sup> Street and Central Avenue). Arizona Forward has already connected with teachers and administrators from Central, Brophy, Xavier & St. Francis Xavier about their ideas, but we think your ideas are just as important. Please share your thoughts with our planning team!

**What features and amenities would bring you to this future learning center and canal section along the banks of the Grand Canal?**

**What features might bring your parents and family to this section of the Grand Canal?**

## PHASE 4 LEARNING ORGANIZATION



As new educational programs and facilities are developed, designers have to make numerous decisions about the *organization* of the learners, the learning process (that is, the curriculum, instruction, and assessment strategies), time, staff, technology, settings, and the decision making. Although there are many ways to organize learning, the Design Team recommends that the following series of design specifications should guide decisions about the program and the facility.

At this time, the team believes that students at the Downtown School could best achieve the most important educational outcomes using the learning processes (described above) if we organize along the following guidelines.

### Organizing the Learners

Learners should be organized in ways that give a feeling that students, staff, and community partners are all a part of one school. In order to accomplish this, the school design should:

- use a variety of criteria of grouping (e.g., age, interests, grade levels)
- X ■ provide for flexible size groups
- include a range of abilities in groups (e.g., gifted, special needs)
- create groups of *nurturable* sizes (e.g., teams)
- indicate that there is planned interaction among levels

### Organizing the Learning Process

The learning process described above is designed to help students achieve the goals of education. Therefore, the Design Team recommends that the learning processes be organized in ways that:

- give connections over time and across subject matter areas
- reflect current events and use teachable moments
- expose learners to the same concept in different settings
- provide for individual and group instruction
- listening, reading, writing, viewing, and speaking are taught together
- involve families and students in setting the learning goals
- can be measured and reported in multiple ways
- reflect multicultural learning strategies

### Organizing the Learning Time

The Design Team also wanted to make certain that learning time was organized to allow all learners to take advantage of the educational program. Organization of time should:

- ✕ ■ provide structured and flexible learning time (e.g., parts of day, developmental level)
- ✕ ■ be *family friendly*
- extend school to be year long
- support students' efforts to achieve the school's outcomes through demonstration of their knowledge and proficiency
- ✕ ■ give students the responsibility to learn time management
- ✕ ■ allow students and staff, individually and together, to reflect and plan (i.e., common time)

### Organizing the Staff

The organization of staff for the Downtown School should help to bring about the kinds of learning that the team proposed for the school. As the staffing patterns are developed they should:

- use variety in the staff teams (e.g., age, grade levels, subject matter)
- create a feeling of community
- focus on students as well as subject matter
- foster long term commitment to the school and the school's philosophy
- contribute to building a strong school culture
- represent the diversity and interests of the nine cooperating districts

The issues of staffing the Downtown School were of special importance to the Design Team. Further ideas about the staff and staff development that go beyond the organization of staff are developed in phase six.

### **Organizing the Technology**

When the Design Team was asked whether it would make any changes to the earlier ideas developed by the 1992 Downtown Task Force, state-of-the-art learning technologies were discussed. The Downtown School should pay much more attention to the revolution in learning brought about as a result of new technologies. Therefore, technology in the school should be organized to be:

- both consolidated (e.g., labs) and dispersed
- state-of-the-art (T1 today) access
- provided for everyone, (e.g., computers, phones, video)
- networked internally and for distance learning
- used effectively by all staff (have training and technical support)
- used as a learning tool

The potential impact of learning technologies on voluntary school integration and academic achievement is so great that the WMEP leaders



asked the technology coordinators in their districts to create a five year vision for the Interdistrict Downtown School, that would be in support of the work of the Design Team. The vision was one of the whole WMEP community working together to improve academic achievement of all students by creating accessible learning technologies and support.

The technology group also prepared a proposal for a federal Technology Challenge Grant entitled *Rebuilding the Village*. With or without the federal funds, teachers and technology representatives from all nine WMEP districts are moving forward to begin to build the human and technology networks necessary to support new interdistrict learning processes. The district representatives are planning to pilot new curriculum for the Downtown School, beginning with an Internet-based curriculum linked to *Journey North*.

### **Organizing the Learning Settings**

The Design Team recognizes that the type of learning that they envision for the Downtown School can not happen without careful attention to the organization of the learning settings. They recommend that the learning settings should:

- be designed to be flexible, accessible, safe, and comfortable
- encourage interdisciplinary teaching
- include lab spaces (in & out of school) for experiential learning
- create a sense of ownership
- include attention to *home* as a learning place and encourage parents to be involved (e.g., phone, parent resource center)
- attend to the needs of students and staff

In addition, the Design Team recommends that the primary learning site should be organized in ways that:

- provides access to playground, gym, athletic fields, theater
- provides alternatives to traditional classrooms
- provide eating places that are comfortable and relaxed

More information on the specifications for the learning setting are in phase seven on learning environment.

### **Organizing the Decision making**

Decision making for a school that is cooperatively designed and owned by nine school districts also needs to be in keeping with the overall design criteria. *The Guidelines for Cooperative Interdistrict Integration Project* provided background to the Team's discussions, as did the member's experience with site-based decision making. The Design Team acknowledges the importance of a decision making model that is aligned with WMEP's purposes as well as needs of the Downtown School. Therefore, they recommend that decision making should be organized in ways that:

- support the School's mission
- encourage collaboration, but once decisions are made by the consensus process they are supported by all
- encourage participation by stakeholders (e.g., school, community, parents, business)
- use an open and clear decision process
- give a good balance to participation by cooperating school districts
- use a deliberate process
- model good communication



## **The Grand Central Project - Educational Framework Planning Process**

### **Meeting #4 Minutes – June 26, 2013**

#### **Welcome and Introductions**

Lynette Pollari started the meeting with introductions and the sign-out sheet was forwarded around the table. New participants include Sharon May from Central High School, John Harlow from the Reinvent Phoenix Project, Stephan Earl from the ASU GIOS CAPTER project, and Laure Molek and Ann Brown from SRP. See attached sign in sheet for full roster.

#### **1. Project Management issues**

A range of project management issues were discussed, with a note that the large samples of flyer survey data received to date from Central High and Xavier College Prep are much appreciated. Student input is still welcome from St. Francis and Brophy, with a plan for fall data analysis (this issue was not on the agenda).

- a. *Update on grant programs:* the AZF Canalscape team is in the process of looking for future grants for funding design work and construction work for comprehensive improvements along the Canal right of way (ROW) from Central Avenue to 7<sup>th</sup> Street. A quick effort over the last week and ½ was taken to put together a draft application for the MAG 2014 Design Assistance grant to look at ROW improvements and the Learning Bridge. Across a flurry of work and two meetings with the City of Phoenix, it was determined that the MAG 2014 Design Assistance grant is not the right grant for the project at this time. This is based on constraints in school stakeholder integration under the grant, and the need to develop strong School and City Council support for the project before moving into further implementation.

The plan for the summer is to meet with MAG to discuss potentials for the Fall Transportation Alternatives funding program that might be matched by SRP Aesthetic Funds (focus on the Learning Bridge), and bring back information to the school leadership for discussion. The potential collaboration with the Reinvent Phoenix Project on planning activities for the Grand Central precinct was cited as a strategic move towards support of planning work aimed at the Grand Central Project. Detailed analysis and comprehensive planning for the entire ROW is required and should be addressed through all possible means including partnering with

Reinvent. There is also the need to develop a plan for gaining City Council support for the project as soon as possible.

- b. *NFWF grant status:* the meeting today is meeting #4, with a total of six “educational” meetings under the grant. Meetings #5 and #6 are scheduled for September 11 (mtg #5) and October 16 (mtg #6). Steady progress is being made on development of the shared Educational Framework, with today’s session on brainstorming Learning Organization + more Learning Environment concepts coming at a good time before the July break, and to provide data for work on update of the site concept plan. Work on planning for the (2) sustainability projects will take front seat through July, in order to develop project plans that can be integrated in a timely manner with Fall curriculum in all the schools. The strategy of “environmental art” appears to be key to the project plans, with the need to develop two primary themes to guide project development and Event planning. The educational projects meeting date is set for July 24<sup>th</sup> at noon at AZF Offices. Joan Baron, a local environmental artist and art educator on the Canalscape Committee will be available to work with the NFWF team and the schools on the sustainability (art) projects, and for fall event planning as appropriate. Joan’s resume was provided to the group (*see attached resume*). Consensus was that involvement by an art educator in the sustainability projects will be welcome.
- c. *February 22, 2014 Event Plan update:* an update to the Event Plan (*see attached update*) was reviewed by Heidi Curiel, with a discussion of revisions that have been drafted to create a stronger focus on the schools and students as the primary audience. It is important for leadership at each school to review the Event Plan and provide input on what types of activities, events and displays that their school can commit to the Event. A separate Event Planning team will be organized, to start work on event planning starting in July. Jim Duncan of SRP stressed the need to develop a concrete event plan that can be put into motion through the fall.

Ann Brown of SRP suggested that an interactive family event, like an environmental “scavenger hunt” is a good way to anchor the event and time span (morning hours). Kim Cavnar suggested that the idea of student art competitions relating to the event should move towards support of “collaborative” student projects, versus competitions per se. There was agreement that “interactive events” and development of “collaborative student projects” are both sound strategies. “Fun things for kids to do” at the event should be explored, with the idea of a solar-powered boat contest on the canal falling into this category. The bringing together of different ages of kids to do something together is key.

It was agreed that there is the need to start event planning in July, parallel with work on the Sustainability Projects. The desire to develop primary themes and concepts for the (2) Sustainability Projects can create the framework for the Event, so that will be the focus for the July 24<sup>th</sup> meeting. See attached list of people that have signed up for the Event planning team as of meeting, with the desire and need for representation from Brophy and Xavier Prep on the committee.

- D. *Coordination with project partners:* coordination work with partners is ongoing and growing, with the network of overlap between complimentary projects becoming clearer. The Reinvent Phoenix Project is very interested in collaborating with the Grand Central Project, and John Harlow was at the meeting to voice that support. John will keep Lynette up to date on fall Reinvent activities, with an April 2014 date for a major urban planning workshop for the Uptown District, with the Duany Plater Zyberk team in residence for that workshop. Lynette said that fall will bring the opportunity for involvement by an ASU GIOS Sustainable Schools fellow on development of the sustainability projects and curriculum, working with the teachers.

## 2. **Learning Organization programming session**

The second half of the meeting was dedicated to brainstorming of Grand Central **Learning Organization** concepts through idea generation around learning settings, places and activities. The entire group engaged in an interactive exercise where each participant was given (6) dots, upon which each participant wrote the name of a place, setting or activity, and located the dots on the large base map of the site area relating to the proposed positions. After 15 minutes of activity, reporting out by all participants uncovered some interesting new ideas for settings/places + activities (see below), along with showing strong support for previous anchoring concepts relating to the future Learning Center, Learning Bridge, desired connection to Steele Indian School Park, the Farmers Market, and serious need for shade structures. Some new concepts include:

- Art garden
- Watershed activities
- Water testing center
- Tohono ramadas
- Coded xeriscapes by type; linear biotic community ; native plants
- Demonstration gardens, student gardens, community gardens; from edible to succulent for birds
- Cooking demonstrations; native foods
- Secret garden; place for kids to play in water
- Arborist program settings
- Winding shady path, in bubble of nature
- Stormwater collection systems; “where does all the water go” type activities
- (Farmers market) as a case study for business classes
- A bike share program
- Skate park, that can also be multifunctional and act as a stormwater detention feature
- Work out space
- Cantilevered decks over canal
- Lots of interactive signage

- 
- N33°30'18.72"
- W112°04'17.76"
- W112°03'5"
- Events**
- Central Places**
- Learning Center**
- Community Garden**
- Food**
- Farmer's Market**
- Linear Elements**

Additional work will be accomplished to analyze data from the exercise, with preliminary organizational categories for “learning setting / environment” concepts including:

- Central Places
- Learning Center settings
- (Community) Garden settings
- Food settings
- Farmer's Market settings
- Linear elements and paths

*Next meetings:*

- *July 24<sup>th</sup> - Educational Planning project meeting at Arizona Forward Offices*
- *September 11<sup>th</sup> – meeting #5*
- *October 16<sup>th</sup> – meeting #6*

***--- End of Minutes ---***

**Attachments:**

- Sign in sheet
- Joan Baron resume
- Updated Event Plan
- Draft Event Planning team list from sign-up



The Grand Central Learning Center Project - Meeting #4, June 26, 2013

SIGN IN SHEET:

Name	Organization	Email	Phone
1. Lynette Poulton	TPS / A2P	poulton.ctrp@phx10.com	
2. Laure Molek	SRP	laure.molek@srpnet.com	602-236-2101
3. Jim Duncan	SRP	jim.duncan@srpnet.com	602-236-5380
4. Kim Carnar	SFX	kim.carnar@sfxphx.org	
5. Sharon May	Central	smay@phoenixunion.org	480-276-4310
6. Sharon For	CSRT - ASU - GIOS	sharon.for@asu.edu	480-965-2919
7. Heidi Cuellar	AZF	<del>heidi.cuellar@azf.org</del>	831-516-3299
8. Ann Brown	SRP	ann.brown@srpnet.com	602-236-3511
9. John Harlow	ASU - Keruent Phoenix	johnharlow7@gmail.com	480-217-6333
10. Cindy Fernandez	SFX	cindy.fernandez@sfxphx.org	
11. Lauren Yacue	SRP	lauren.yacue@srpnet.com	602-236-3416
12. Julia Perry	Central	jpercy@phoenixunion.org	602-510-7439
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

NEW INFO

**JOAN BARON**  
**BARON STUDIO**



Baron Studio takes basic environmental principles and integrates them with art and design. This approach treats all projects with the ecology and culture of place and space that respects the end user and all sustainable practices to ensure long term success.

The studio is well known for innovative design and fabrication solutions to tile and mosaic works, site specific installations, art in public and private development, edible landscape design/consultation, hospital healing spaces, school campus aesthetics, community center design challenges & neighborhood enhancement projects. Pop-up art and landscape installations bring inspiration and excitement that bring cultural experiences to all.

Baron Studio seeks to bring a renewed awareness to urban sustainability through the arts. A water harvesting cistern is introduced as a sculptural element in the landscape. Reclaimed onyx tile becomes a light transmitter in a steel gate. Mosaic tile brings new language to a neighborhood culvert. Vegetables are invited to grow along an earth plaster wall and herbs from the garden are served from handmade ceramic bowls and platters.

Joan served on the Green Building Advisory Committee for the City of Scottsdale for many years and was a key co-producer of the Green Building Expo. Her focus was bringing in keynote speakers such as David Orr, Ed Mazria, Sue Roaf, Paula Baker-Laporte & Robert Laporte.

As a educator, Joan brings her passion for clean, energy efficient design into a variety of consulting roles on residential and commercial projects. The Edible Landscape Project in south Scottsdale serves as a working laboratory for her ideas and concepts regarding sustainable neighborhoods and offers the property for tours, workshops and gatherings.

Baron Studio actively works with architects, landscape architects, designers, developers, builders and community leaders to bring a rich vocabulary of aesthetics to their projects.

## **EXPERIENCE**

### **CONCEPTUAL DESIGNER/DEVELOPER**

#### **Food in the Alley**

2010 – Present (3 years) Food in the Alley Initiative explores communal space that has traditionally been ignored and avoided. By carefully preparing a narrow stretch of land (approx 60' x 18" ), a beautiful, food producing element has been introduced into a once desolate area. Neighbors meet one another when taking out there trash and now mingle to enjoy the mammoth sunflowers, daisies, hollyhock, lemongrass, swiss chard, romaine lettuces, snap peas, kale, arrugula, artichokes, loofah and much more! Recycling bins, book exchange, seating and other interactive amenities are in the plans.

### **DEVELOPER**

#### **The Edible Landscape Project**

January 1989 – Present (24 years 6 months)

Demonstration gardens for vegetables & flowers. Passive solar techniques using trees, rain water harvesting structures with vines, outdoor living spaces, gray water design, unique bench & seating solutions, raising chickens.

Locally produced food = healthy lifestyle... eventually, everything connects.

### **ARTISTIC DIRECTOR, CREATIVE CONSULTANT**

#### **Baron Studio**

January 1980 – Present (33 years 6 months) South Scottsdale, Arizona

Baron Studio and The Edible Landscape Project explore, consult, design and fabricate a myriad of artistic solutions for a wide range of projects for public spaces and private residences.

We provide consultation, direction, over-view projects to identify and implement necessary changes that can improve the functionality and profile of any size project. This may include the inclusion of custom tile, mosaics & murals, site specific art installations, edible gardens, seating & landscape design. An Ecology of Place & Space guides our aesthetic approach. We are urban design thinkers & creative solution consultants with an emphasis on art in the environment, long term wellness integration & issues of density in cities, food resources & neighborhood enhancements.



**The Grand Central Learning Center Project**  
**Proposed Canalscape Event: Saturday, February 22, 2014**

**Proposed Concept:**

Commemorate Canalscape through a public educational event triggering increased foot traffic and awareness of our Valley's canal system and its future potential as a destination for transit, recreation and education.

**Theme:**

Position the Grand Canal as a public domain for learning and community life for students and professionals. Spur interest through the unveiling of the Learning Center Program and Learning Bridge concept design, and garner further engagement in Canalscape projects.

**Target Audience:**

Partner Schools (Students, Teachers, Administrative Staff and Parents)  
Neighborhood  
Educational Community

**Goals & Objectives:**

- Position Arizona Forward as the leading champion of Canalscape, embracing the canal system as gathering spaces for recreation and education, connectivity and sustainable development
- Build public knowledge of the canal system and its role in supplying water to the Valley and its potential to serve as a vital urban hub (SRP to help drive/facilitate discussions)
- Commemorate the future site of the Grand Central Learning Center
- Install environmental art in the Grand Canal at the location of the future "Learning Bridge"
- Grow support for future ROW improvement projects and entitlement & funding of the Learning Center
- Serve as a sustainability project deliverable under the National Fish and Wildlife Foundation grant; engage students in experiential projects focusing on the canal system – its benefits and contributions to healthy, sustainable lifestyles

**Venue:**

The Grand Canal future "Learning Bridge" site, just east of Seventh Street

**Proposed Event Details and Activities:**

9 a.m.-1:30 p.m., Saturday, February 22nd

- Kickoff featuring "human-powered transportation" themed event using entire ROW with link to Steele Indian School Park and park environment
- Educational booths and displays from the schools:
  - School clubs

- Music and performance groups
- Art classes
- Display of environmentally-themed student artwork
- Farmers market vendors and food carts
- AIA Canalscape Competition Boards on display
- Musical events featured by the schools: choirs, bands, orchestras
- Potential giveaways
- Art installation as program centerpiece

**Project Partners:**

Arizona Forward

ASU GIOS + Sustainable Schools + Ecology Explorers + CAPLTER

Central High School, St. Francis Xavier School, Xavier College Preparatory and Brophy College Preparatory

Salt River Project

Maricopa Flood Control District

City of Phoenix Planning and Transportation Departments

Reinvent Phoenix Project team

City of Scottsdale Public Art

Maricopa County Flood Control District

**City of Phoenix Role:**

- Representation on Event Planning Committee
- Leverage Reinvent Phoenix project/activities to boost Canalscape awareness
- Symbolic ribbon cutting event with key speakers (Mayor Stanton, principals from the school stakeholder community, Arizona Forward)
- Event promotion through communication vehicles
- Event management support (logistics)
- In-kind contributions

**Budget & Financing:**

Once an event plan is finalized a budget will be developed and sponsors/in-kind contributions solicited. Arizona Forward will serve as project manager in this regard.

**PRE-Event Teaser (Fall 2013):**

Initiate environmental art creation or competition amongst students on how they envision the past, present and future of Canalscape to further build excitement around Canalscape. Student art will be displayed at the Spring 2014 event.

Place art pieces on north and south sides of the Grand Canal at future “Learning Bridge” location to create spatial “link” and “axial connection” across the Canal. Build buzz around Canalscape and a future project/initiative.



ARIZONA  
FORWARD

**CANALSCAPE EVENT TEAM**

**LAURE MOLEK**

SRP

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SRP

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**CINDY FERNANDEZ**

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## **The Grand Central Project - Educational Framework Planning Process**

### **Minutes - Sustainability Project(s) Meeting #1 – July 24, 2013**

#### **Welcome and Introductions:**

Introductions around the table were initiated by Diane Brossart with a broad, representative group present for the project planning meeting from the St. Francis, Central High, Brophy College Prep, Arizona Forward, SRP and GIOS organizations:

#### Attendance

Joe Helm, Brophy  
Kim Cavnar, St. Francis  
Cindy Fernandez, St. Francis  
Julia Perry, Central High School  
Joan Baron  
Jim Duncan, SRP  
Leeann Yacuel, SRP  
Erin Blevins, SRP intern  
Diane Brossart, AZF  
Heidi Curiel, AZF  
Christie Silverstein, AZF  
Stephen Thompson, AZF + TPS  
Lynette Pollari, AZF + TPS + GIOS  
Mady Tyson, GIOS Fellow  
Matt Cohen, GIOS Fellow

## Sustainability Projects / Meeting Overview:

The purpose of the meeting was introduced by Lynette Pollari:

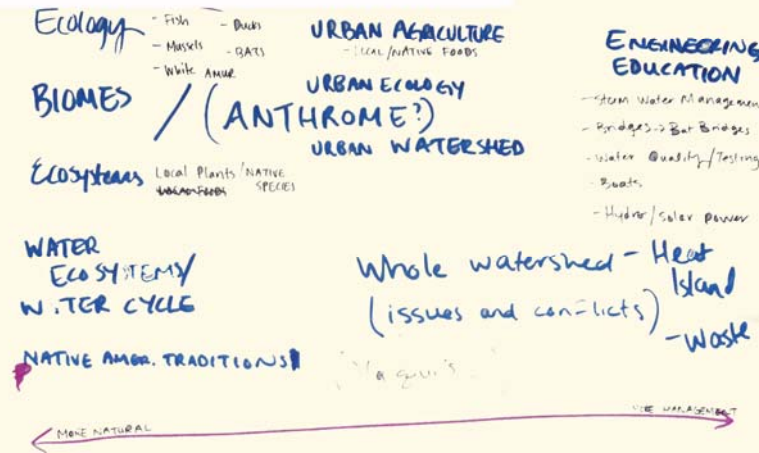
- To confirm specific sustainability projects for fall initiation across the schools, with outcomes of the projects aimed at demonstration during the spring 2014, School / Public Event on February 22<sup>nd</sup>.
- The purpose of the meeting was also to allow a separate project / curriculum planning committee to move forward separately from an Event planning team and the Educational Framework / NFWF grant team, with all working groups operating under the same conceptual framework(s) through the fall.
- Lynette said that across the first four Educational Framework planning meetings, many concepts and ideas have been generated for the Grand Central Learning Center Project relating to sustainability projects, curriculum content and delivery methods, learning center design features, school and community partnerships, and the February 2014 event. Within the breath of information and ideas, there are also broad themes for the project that are beginning to be built. She said that there was not the need to develop new ideas for this meeting, but to focus on organizing all the great information that exists to arrive at specific project ideas to drive the Sustainability Projects and Event planning for fall.
- Lynette explained that to get ready for this meeting, work was accomplished with the GIOS Sustainable Schools Fellows to broadly analyze all the data and organize in appropriate thematic frameworks under the Wiggins and McTighe “backward design” curriculum design template categories that include: Goals, Understandings, Essential Questions, Performance Tasks and Evidence. This is the textbook that the Sustainable Schools course utilizes for training new fellows.
- Over the weekend and through a planning meeting on Tuesday, the GIOS Sustainable Schools Fellows took the first pass at building “frameworks” for Grand Central curriculum according to the “backward design” process for review and confirmation at today’s meeting. This was in order to set conceptual frameworks for sustainability project development that can link with Event Planning and concept site plan update work.
- It was further explained that an additional goal of the “frameworks” is to set a shared structure for curriculum development that the schools can utilize far into the future.
- Through analysis of the data (published in meeting minutes from meetings #1-#4), the fellows found that the majority of data generated by the stakeholder group falls under understandings (themes, topics) that appear to bundle under two essential questions conceptually framed as:
  - ***What is nature and how do we manage it?***
  - ***How should the canals connect us?***

*Note: See the next two pages for the Frameworks reviewed at the meeting.*



# What is Nature and How Do We Manage It?

## Understanding Themes and Topics:



## PERFORMANCE TASKS

- K-12 contexts (Design) collaborative across grades + schools
- You tube Video
- Parent Display
- Environmental Scavenger Hunt
- Solar Powered Boat
- Cooking Demonstrations (Native Foods)

NATURE ← → MANAGEMENT

## EVIDENCE: COLLABORATIVE OUTCOMES

Learning Center: 3 section biotic ~~landscape~~ Landscape

- ↳ Biome Garden

## Learning GARDEN:

Community / Demonstration / Native / Keroscape

E-I

WATER TESTING SITE

BAT BRIDGE

INTERPRETIVE SIGNAGE / WALKS

FARMERS MARKET

## Humans

## GOALS:

CLASSES / DISCIPLINES / LEARNING NEEDS

## How should the Canal Connect Us?

UNDERSTANDING: THEMES / BIG IDEAS / TOPICS

WATER WAYS: HISTORY, LANDMARKS  
HOW THEY WORK  
WATER CONSERVATION  
WHAT IS WATER USED FOR?

HISTORICAL TRADITION: Native American: SACRED SPACE  
(CONNECTION THROUGH TIME)

PATHWAYS: BRIDGES, Connection to Park/Fences

RECREATION/EXERCISE

ART BRINGS PEOPLE TOGETHER

Civic Engagement

PERFORMANCE TASKS: PROJECT ACTIVITIES

BRING SCHOOLS TOGETHER - LEARNING CENTER

PARTNERSHIPS: CITY, SCOTTSDALE, BIKE SHARE,  
K-12 CONTESTS - DESIGN COMMUNITY MEMBERS, Walton,  
YOUTUBE VIDEO — Earth Fest, Sci tech Fest

PARENT DISPLAY

FARMERS MARKET

X promotion

EVIDENCE CONCRETE COLLABORATIVE OUTCOMES

ART DESIGN - ENVIRONMENTAL

- WASTE ART - FOUND IN CANAL

- Permanent (Fence) / Functional

TIME CAPSULES

→ shade

FARMERS MARKET

TAKE DOWN FENCING/

SHADE STRUCTURES, LIGHTING

LEARNING CENTER

RECREATION EQUIP. - BIKE SHARE PROGRAM

HUMAN POWERED-~~RACE~~ COMPETITION  
RACE

GOALS:

## Summary of “frameworks” and reviews:

- Under those two “essential questions”, most of the findings fall under the categories of “understandings”, “performance tasks” and “evidence”. The topics areas of “goals” and “classes and disciplines” are less clearly found in the data.
- Mady Tyson presented the two “frameworks”, describing the range of findings that have been organized under each. It was agreed by the group that the “frameworks” are sound and that they see that many projects and lessons can be developed across time according to the frameworks and their multiple themes and understandings. In addition, more frameworks can be developed in the future.
- Joan Barron floated several good ideas of how art as a theme and performance strategy (environmental art) can drive the projects, and how she can work with AZF, GIOS and the schools and students across the entire year on the sustainability projects.
- Kim Cavnar said that the core concepts of “stewardship” and “sustainability” should drive the frameworks, the curriculum projects and the Grand Central Learning Center project as a whole. She stressed that collective efforts of the stakeholder group across time aimed at growing and sustaining the Grand Central project and partnerships is critical. Kim suggested that with the momentum growing around the Grand Central project, it is critical to start considering ownership and stewardship of the project and site. Julia Perry suggested that school clubs are the perfect organizations to start “owning” this stretch of the Canal, and everyone agreed.
- After much discussion about the frameworks and project ideas, the range of themes for project ideas were narrowed down to 1) shade structures, 2) bridging, 3) water / watershed/management/demonstration concepts and 4) native plants/agave. From this bundle of four themes, the group narrowed down again to two primary themes for the projects including “shade” and “bridge”. Both themes have great potential for multiple project and lesson development efforts. It is agreed that while they are both broad in scope, they are also specific to the Grand Central Learning Center Project.

**Summary:**

- The two “essential question” frameworks are approved; more “essential questions” and related “frameworks” can be developed across time
- The two main themes of “shade” and “bridge” will be pursued for the 2013\_2014 school year’s sustainability projects
- While the two themes can fall under both frameworks / essential questions:
  - **“Bridge”** may be best organized under *“How should the canals connect us?”*
  - **“Shade”** organized under *“What is nature?”*
- August 14<sup>th</sup> at 3:30pm has been set for the next meeting date for the “sustainability projects” team at the Central High School Library; Julia Perry will confirm availability of the space
- Formation of the Event Committee and scheduling of the first event planning meeting will happen after the August 14<sup>th</sup> projects meeting; a primary leader from each school is requested for the Event team
- Kim Cavnar will connect with Sister Joan at Xavier for teachers to join the August meeting
- Joe Helm will connect with Brophy teachers for attendance at the August meeting

- - - *End of Minutes* - - -

**Attachments:**

- NA



## **The Grand Central Project - Educational Framework Planning Process**

### **Sustainability Projects Meeting #2 - Minutes – August 14, 2013**

#### **Attendance:**

Paul Bonnett, Central High teacher  
Julia Perry, Central High teacher  
Sharon May, Central High teacher  
Roxie May, Central High teacher  
Joe Helm, Brophy Board Member  
Cindy Fernandez, St. Francis Xavier teacher  
Abbey Aspen, St. Francis Xavier teacher  
Mary Musgrove, St. Francis Xavier Admissions  
Kim Cavner, St. Francis Xavier Principal  
Joan Baron, Public Artist and Educator  
Kevin Rolf, SRP Education Services  
Heidi Curiel, AZF Event Planner  
Matt Cohen, ASU GIOS Sustainable Schools Fellow  
Mady Tyson, ASU GIOS Sustainable Schools Fellow  
Lynette Pollari, AZF, GIOS and TPS  
Stephen Thompson, AZF and TPS

#### **Welcome and Introductions**

Lynette Pollari initiated the meeting with introductions around the table, and with a brief overview of the progress that has been forged across the four Grand Central Educational Framework planning meetings accomplished through spring and early summer of 2013. The meeting moved from the introductions into a working review of two draft sustainability project planning forms, a fifteen minute breakout work session on the planning forms, a reporting-out session by the two working groups and a quick recap session addressing plans for the next meeting with students.

During the introduction section of the meeting, Lynette explained that meetings in the past have created a wide range of ideas and concepts for improvements to the Canal right of way, development of the future Learning Center site, concepts for curriculum development, sustainability project implementation and planning for the February 2014 Public Event that can celebrate the broad work accomplished on this project. Input from these meetings has fueled development of the two sustainability project “conceptual frameworks” that were created by the Sustainable Schools Fellow. Mady explained that the two “conceptual frameworks” have grown out of input from the Grand Central

stakeholder group, and were created to help move sustainability projects into the classrooms for fall and early spring work, culminating in presentations at the February 22, 2014 Public Event. The two framework structures posit two essential questions including “What is Nature and how do we manage it?” and “How do the canals connect us?” It was explained that the sub-themes of SHADE and BRIDGE were identified for sustainability projects below those two essential questions during the first project planning meeting on July 24, 2013.

### **Review of draft Project Planning Sheets**

Two draft project planning sheets for the SHADE and BRIDGE themes suggested at the July meeting were reviewed by the group, with suggestions for additions and improvements including:

- What can the sustainability project teams be? Not just from individual schools or classes, but also including students from clubs and other school groups from music, art, engineering, social action, etc.
- How do we emphasize not having school competitions? The group would like the student teams to include students across the schools, to help build collaboration and mentorship across campuses and school cultures.
- Water and water quality is missing as a project idea, and Central teachers are involved in this content area and would like to integrate a water-based sustainability project into the “classroom”. It was agreed that a water project will be added.
- All three of the themes should be expanded out to allow for flexibility of project development; desired expansions include:
  - WATER , to include *Watershed*
  - SHADE, to include *Heat Relief*
  - BRIDGE, to include *Bridging*

### **Small Group Brainstorming Session**

The group broke-down into two planning teams to brainstorm the Sustainability Projects and some Event issues, with one group focusing on the SHADE theme and the other on the BRIDGE / WATER themes. Results from this break-out session include:

#### **Group “A “: SHADE**

1. One idea mentioned was to combine the shade and bridge into a single thematic project in which the bridge has shade and this could possibly have plants growing on or up the side. Students would need to figure out the angle of the sun at the hottest time of the day. Along bridge, videos could be played of kids talking about how they imagine and dream about the canal in the future.
2. A main idea is to get the collaboration and creativity going, and it should start with the kids. Getting kids together will create many ideas to get this going. Monitors could display videos of

kids talking about their ideas and dreams could cycle through many different vignettes. It would be great if high school students could take footage, as they are very good at using smart phones to make videos.

3. A temporary fence structure could provide shade via a ramada and the use of ocotillo as a living fence. Using a material like palm fronds or bamboo screens which can be rolled out could make a quick shade structure and provide a place to view student dreams.
4. A second focus was on creating a *visceral experience*. Several ideas for getting at this include getting a fountain and pump to teach kids about how the water lower is colder. This might be a great link with the CAP resources that are available.
5. Another learning activity could be a Native American musical performance:
  - a. circle dance with music
  - b. connect with histories and stories
  - c. feel/touch/taste
  - d. create visceral experience
6. Animal habitats → how do animals use shade? Can these be used as a something to experience and inspire shade structures? Can kids go in them? Create visceral experience.
7. Plants such as bamboo shoots or other small plants would make a nice event giveaway.

#### **Group B: BRIDGE and WATER**

1. Want cross-school collaboration! Cross promotion at schools means they need a neutral site that all students can go to, and that kids need motivation. This means creative of a culture of collaboration with fun experiences to bring kids together, such as a student driven visioning workshop.
2. Use the concept of bridge to facilitate both a literal and figurative bridge between the schools. The literal is a physical design of bridges, and the figurative is the idea of bringing the schools together to create a unified learning community around the canal.
3. The students need to understand what the canal is already used for.
4. Students can research plants and landscape design.
5. Students can do bridge design.

## **Project Planning Session for Fall Schedule**

After reporting out from the small group brainstorming sessions, the group focused on identifying how the projects can move forward productively through the fall, with the following:

- **Six students are needed from each school:** each school should select a team of six (6) students to be involved in the sustainability projects.
- **Up to four Sustainability Project Teams will be developed:** blended teams are desired with students from different schools on the same team as possible. Project teams will be created with six (6) students per team.
- **The goal is to develop three total projects, that the students can choose from at the next meeting; the planned projects include:**
  - WATER and Watershed
  - SHADE and Heat Relief
  - BRIDGE and Bridging
- **The students will attend the next project meeting:** on September 18<sup>th</sup> at 3:15pm at the St. Francis Library. They should be prepared for a 1.5 hour meeting.
- **Project meetings through fall will be scheduled monthly,** on or around the same day each month.

### **Attachments:**

- Sign in sheet



# The Grand Central Learning Center Project - Sustainability Projects Meeting #2, August 14, 2013

## SIGN IN SHEET:

	Name	Organization	Email	Phone
1	Joe Helm	Brophy	jhelm@brophyphx.org	602-264-5291 Ext 6130
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3	Kevin Rolfe	SRP	kevin.rolfe@srpnet.com	402-236-2778
4	STEVE THOMPSON	THOMPSON POLLARI STUDIO		
5	Kim Cavar	SFX	kim.cavar@sfxphx.org	
6	Mary Musgrove		mary.musgrove@sfxphx.org	
7	Cindy Fernandez		cindy.fernandez@sfxphx.org	
8	Abby Aspen		abigail.aspen@sfxphx.org	
9	Sharon May	Central High School	smay@phoenixunion.org	480.276.4310
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11	Paul Bonnett	Central Hg	bonnett@PUHSD.org	
12	Roxie May	Central	may-thayer@phoenixunion.org	
13	Lynette Pollari	AZF + TPS	pollari@TP-STUDIO.COM	
14			LYNETTE.POLLARI@ASU.EDU	
15				
16				
17				
18				
19				
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## **The Grand Central Learning Center Project**

### **September 2013 Meetings (3) Report**

The following minutes provide record of three different meetings that were held during the month of September for the Canalscape Grand Central Learning Center Project. The meetings address different work areas under the project and NFWF Grant including planning for the **Public Event**, work on completing the **Educational Framework** and work with student teams on **Sustainability Projects** through fall and early 2014. The goal is for event planning and sustainability project work with the students to run parallel through fall with monthly team meetings, to culmination in the Public Event. One more Framework meeting will be scheduled in November, with a final report on the project to be completed before the Public Event.

#### **Public Event Planning Meeting #1**

**September 6<sup>th</sup>**

##### *Attendance:*

Chris Jones, Principal, Central High School

Elizabeth Toledo, Assistant Principal for Student Opportunities, Central High School

Pat Prince, PUHSD

Lynette Pollari, AZF, GIOS and TPS

Stephen Thompson, AZF and TPS

Heidi Curiel, Arizona Forward (AZF)

The meeting was held to review draft Event site plan staging concepts, and to ensure that the PUHSD District and Central High School leadership are comfortable with the direction staging is proposed for the District's and Central High School's property. It was consensus within the group that the Public Event is important and that the PUHSD and Central High is excited to provide the Event setting and support. The overall site plan and staging concept was reviewed with the following input:

- The +/- 60 space dirt parking lot just west of the Central Football Field can be utilized for supplementary parking; it was also suggested that the 80 space Steele Indian School Park lot just south of the Doggy Park should be scheduled for staff and supporter parking, with the main lot scheduled for VIP parking
- The main Brophy and Central lots just east of Central will be the primary public parking lots, with the use of pedi-cabs for routing people from the lots to the Event site as a fun and fitting idea. It was suggested that the parking lot west of Central Avenue and Brophy might also be secured for overflow parking for the Event
- The Central parking lot just south of the Theatre can also serve as overflow parking with a pedestrian access path through campus to the site
- The grassy field just north of the football field and south of the Canal can be utilized for large vehicle and bus parking
- Temporary removal of fencing fabric for access to the baseball field and the south banks of the Canal is possible, with the need to plan for removal and re-installation in a timely and professional manner
- Access to the baseball field for the Event (with temporary fencing fabric removal) is allowable, but the District would like to limit wear and tear on the field; temporary fencing can be used to section off the east field area adjacent the parking lot for use with the rest protected

- Dust control across the field and parking areas may be required
- Security planning is required; Central will plan to assign from 3-4 campus security guards to the Event and AZF will secure the additional security personnel
- Porta-potties will be provided, and Central can also offer use of the public toilets and drinking fountains that service their football field
- The First Aid Station can be located in the building just south of the PUHSD Facilities building
- Temporary power from a generator(s) may be required; this will need to be explored in more detail as Event planning proceeds and exhibitor types are confirmed
- The idea of creating a special 'ground surface' on the Main (Exhibit Street) was discussed; Pat Prince suggested that washable pavement painting might be possible
- The concept of the symbolic "bridge" was discussed; potential contacts for bringing in a temporary structural element may be the Army Corp of Engineers or the National Guard; ideas for temporary features like a balloon "arch" will also be pursued
- Food carts and booths were discussed; each school may have clubs requesting booths for food activities



**Event Parking Analysis**

## Framework Planning Meeting #5

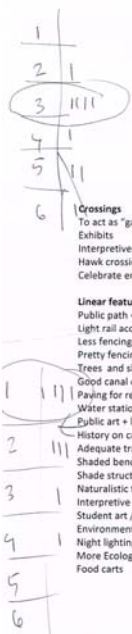
September 11<sup>th</sup>


### Attendance:

Chris Jones, Principal, Central High School  
 Pat Prince, PUHSD  
 Kim Cavnar, St. Francis Xavier  
 Cindy Fernandez, St. Francis Xavier  
 Mady Tyson, ASU GIOS Sustainable Schools Fellow  
 Matthew Cohen, ASU GIOS Sustainable Schools Fellow  
 Monica Elser, ASU GIOS Education Manager  
 Lynette Pollari, AZF, GIOS and TPS  
 Stephen Thompson, AZF and TPS  
 Christie Silverstein, Arizona Forward

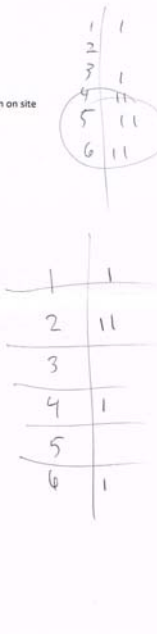
At this meeting, the 5<sup>th</sup> of six total working meetings for development of the Educational Framework for the Grand Central Learning Center project, participants brainstormed site plan concepts for “bricks and mortar” improvements to the Canal right of way. Everyone was asked to review the list of site plan program concepts by topic categories that have been developed during Framework meetings #1 through #4, and to rate each category in relationship to which should come first to structure future, phased construction projects. Under each rating category, participants entered subtopics that they chose as most important from the lists. Through this rating activity, it was determined that projects relating to *linear features* and the *learning bridge* should come first, with *crossings* next, *community gardens/agriculture/farmers markets* in fourth place and the future *learning center* in fifth place.

This program reiteration and rating activity was very valuable because it lent consensus and credibility to programming efforts through the year, and sets up the team for discussions with the City, MAG and SRP for potential funding programs for phased ROW and adjacent land improvements.





The Grand Central Learning Center Project  
 Site Plan Program  
 from input gathered at meetings #1 through #4



**Crossings**

- To act as “gateways”
- Exhibits
- Interpretive signage
- Hawk crossing / safe crossings
- Celebrate entries to area

**Linear features**

- Public path + greenspace
- Light rail access
- Less fencing
- Pretty fencing with art
- Trees and shade
- Good canal edge like Scottsdale
- Paving for recreation, territoriality
- Water stations
- Public art + landmarks
- History on canal banks
- Adequate trash cans
- Shaded benches + seating
- Shade structures
- Naturalistic trails
- Interpretive signage
- Student art / community art
- Environmental outdoor art
- Night lighting
- More Ecology in the canal
- Food carts

**Learning Bridge**

- Connection to park
- Bat Bridge
- Bridge as “park”
- Canal overlooks
- Water testing site
- Outdoor classroom
- Collaborative bridge
- Bring the schools together

**Learning Center**

- Shared Ed Facilities
- Outdoor Learning Center
- Outdoor classrooms
- (Storm) water / cycle demonstration
- Green houses + ecology
- Play center with water, water park
- Child gateway to learning
- Bird sanctuary
- Quiet spaces, spiritual reflection
- Native American center
- Experiential pathways
- Outdoor theatre
- Sustainable buildings
- Hydro, solar power demonstrations
- Time capsule
- Athletics – (basketball court, skateboard area, public batting cages)

**Community Gardens + Agriculture**

- Farmers Market
- Community gardens
- Student gardens
- Biotic community demonstration
- Giving garden like Glendale
- Cooking areas for classes; use veggies grown on site
- Native plants
- Flowers + wildflowers
- Local native veggies
- Grassy walls kids can play on
- Urban agriculture
- Farmers market run by schools
- Urban market

**Build Connections**

- Between schools – curriculum / events
- Between schools – less chain link fencing
- With local businesses and community
- Phoenix Bike Share program
- Paths to Steele Indian School Park

## **Student Projects Meeting #3 – first student gathering**

**September 18<sup>th</sup>**

*Attendance: see attached sign in sheets*

Kim Cavnar, St. Francis Xavier

Cindy Fernandez, St. Francis Xavier

*Students: Charlie Regester, Anais Gutierrez, Tatiana Rosales, Mira Briestensky, Tatum Riley*

Julia Perry, Central High

*Students: Lisa Moreno, Penelope Ramos, Dakota Norling, Joseph Cruz, Marmet sa Lin, Si Mar Bi*

Joe Helm, Brophy Prep

*Students: Matthew Bureson, John Sittu, Scally Star Gonzalez, Will Olesiewicz,*

Janet Mambrino, Xavier Prep

*Students: Kate Randolph, Mallory Miller*

Other:

Mady Tyson, ASU GIOS Sustainable Schools Fellow

Matthew Cohen, ASU GIOS Sustainable Schools Fellow

Adrian Cavada, BioScience Student Intern for Canalscape Project

Lynette Pollari, AZF, GIOS and TPS

Stephen Thompson, AZF and TPS

Joan Baron, Artist and Art Educator

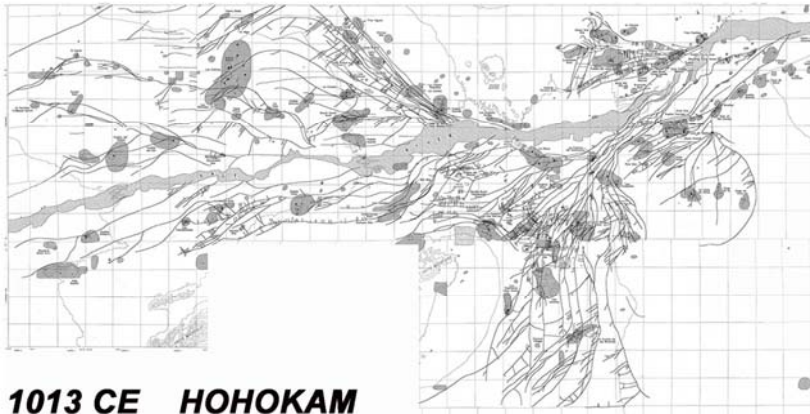
Heidi Curiel, Arizona Forward

The first of five meetings with students from the four schools was held on September 18<sup>th</sup> at the St. Francis Library space, with a total of 17 students in attendance. Introductions to the Arizona Forward, ASU GIOS and SRP Grand Central Project team members started the session. Mady Tyson and Matthew Cohen, the ASU Sustainable Schools Fellows gave introductory presentations to the students and engaged them with questions and their genuine enthusiasm for the project

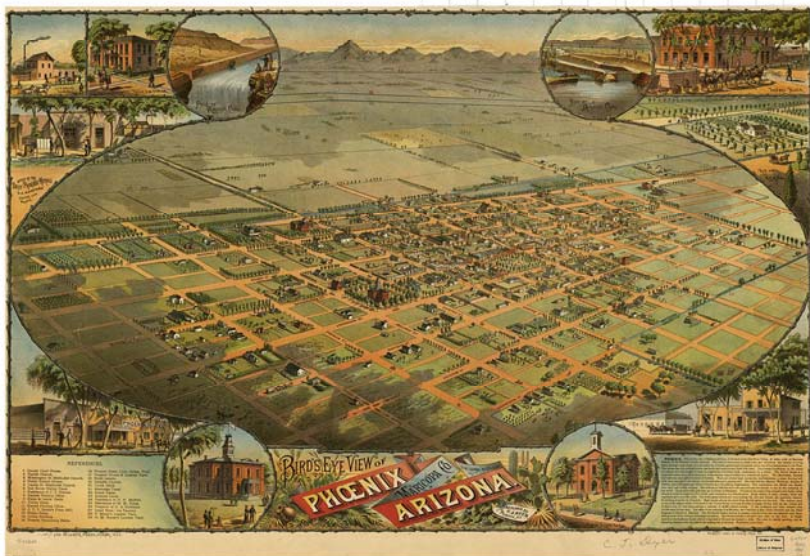
The majority of the 1.5 hour meeting schedule was dedicated to collaborative Canalscape visioning exercises with the student . During the two student work sessions, artist Joan Baron, and fellows Mady and Matt engaged with the students to assist, encourage and advise as they prepared their individual ideas and subsequent team ideas in both words and through illustrations. The exercise included two primary activity sessions with the first allowing each student to individually brainstorm their individual concepts for canal improvements, with diagramming and note taking on a site plan sheet. Before the start of the second interactive session, Stephen Thompson presented a quick history on the canal system, from the early indigenous canals utilized by Native American groups to modern engineering improvements that moved the canals into a period of urban water productivity during the 20<sup>th</sup> and 21<sup>st</sup> centuries. After this short primer on canal history, the second session moved forward with students being organized into five different teams to talk within their groups and arrive at the three (3) most important concepts or features that their collective “team” believes should be included in development plans for the Canal ROW. From reporting out from each team, Mady Tyson cited an emerging focus for student project concepts and team formation around three major concept categories including Environmental Art, Infrastructure projects and amenities, and Shade conditions.

The meeting was concluded by presentation of the draft Project Schedule with proposed meeting dates scheduled through Fall and early winter up to the February 2014 Public Event. Students were also given a copy of the project commitment form (*see attached*) that each student and their parent(s) should sign and return to their school’s project leader as soon as possible. Heidi Curiel of Arizona Forward provided a brief update on Event planning activities, and the meeting was adjourned on time at 5pm.





**1013 CE HOHOKAM**



**1885 PHOENIX**

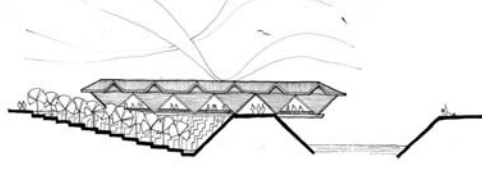
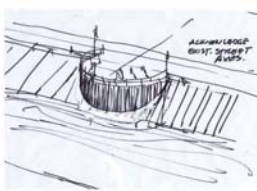
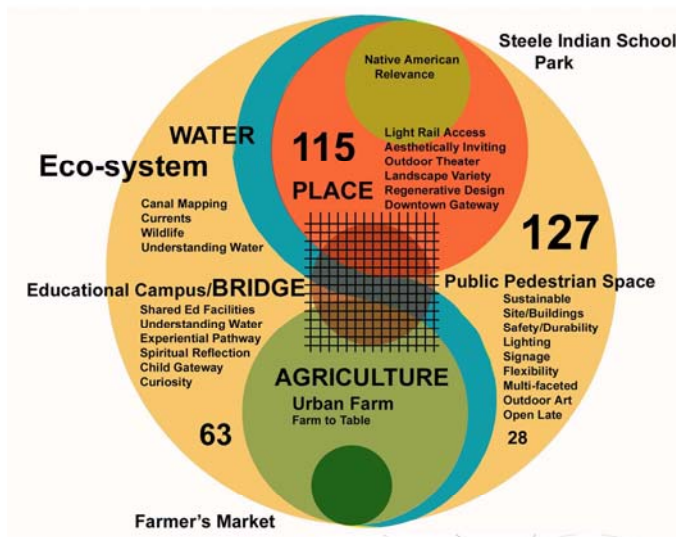


**1881 RAILROAD EXPANSION**



**Canal History Board**





## Grand Central Site Development History Board

### Attachments:

- Sign in sheets for September 18<sup>th</sup> Student Projects meeting
- Project Commitment Form

The Grand Central Learning Center Project -  
Sustainability Projects Meeting #3, September 18, 2013

SIGN IN SHEET:

	Name	School / Organization	Lead Teacher(s)
1	Tatiana Rosales	St. Francis Xavier	Mrs. Carnar
2	Anais Gutierrez	St. Francis Xavier	Mrs. Carnar
3	Tatum M. Riley	St. Francis Xavier	Mrs. Carnar
4	Mira Briestensky	St. Francis Xavier	Mrs. Carnar
5	Will Olesiewicz	Brophy Prep	Mr. Helm
6	Matthew Burleson	Brophy Prep.	Mr. Helm
7	John Sittu	Brophy Prep	Mr. Helm
8	Charlie Regester	St. Francis Xavier	Ms. Carnar
9	Kate Randolph	xavier Prep	Mrs. Mambriño
10	Mallory Miller	xavier Prep	Mrs. Mambriño
11	Penelope Ramos	Central highschool	ms. perry
12	Dakota Norling	Central highschool	Mrs. Perry
13	Lisa Moreno	Central high school	Mrs. Perry
14	Si Mar Bi	Central high school	Mrs. Perry
15	Sally "Star" Gonzalez	Central High School	Mrs. Perry
16	Joseph Cruz	Central High	Ms. Perry
17	Marbet Sa Lin	Central high	Ms. perry
18			
19			
20			



**The Grand Central Learning Center Project -  
Sustainability Projects Meeting #3, September 18, 2013**

**SIGN IN SHEET:**

	Name	School / Organization	Lead Teacher(s)
1	Joe Helm	Brookline	Joe
2	HEIDI CURIEL	AZ FORWARD	
3	Matt Cohen	ASU	
4	Adrian Cavada II	BioScience HS	
5	Jane Mambino	Xavier	
6	Lynette Puller	AZFT + GIOS	
7	Stephen Thompson	AZFT TPS	
8			
9	JOAN ARON		
10			
11			
12			
13			
14			
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20			



**ARIZONA  
FORWARD**



**National Fish and Wildlife Foundation Grant**

**Grand Central Learning Center Project**

**Fall 2013 Sustainability Projects**

**Commitment Form:**

**STUDENT:**

I commit to regular attendance at the monthly project meetings and to collaboration with my Project team for development of a Sustainability Project to be displayed at the Canalscape Grand Central Project's Public Event on February 22, 2014.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**PARENT:**

I agree to my child's regular attendance at the monthly project meetings and to collaboration with their Project team for development of a Sustainability Project to be displayed at the Canalscape Grand Central Project's Public Event on February 22, 2014.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**Exhibit E and F –**

Student Flyer

And

Short Report by Intern



**PLEASE SHARE YOUR IDEAS**  
**For the**  
**Canalscape Grand Central Learning Center Planning Project**



Have you noticed the canal behind your school? Have you ever thought about it as a place to learn? Or gather with your friends? What would make the canal a more inviting place?

Arizona Forward, a local organization promoting sustainable and livable communities in the Phoenix area is interested in getting your ideas as they formulate a plan to re-energize a segment of the Phoenix Grand Canal that is adjacent your schools (between 7<sup>th</sup> Street and Central Avenue). Arizona Forward has already connected with teachers and administrators from Central, Brophy, Xavier & St. Francis Xavier about their ideas, but we think your ideas are just as important. Please share your thoughts with our planning team!

**What features and amenities would bring you to this future learning center and canal section along the banks of the Grand Canal?**

**What features might bring your parents and family to this section of the Grand Canal?**

## **Exhibit F –**

### Student Data Analysis Report

# CANALSCAPE REPORT

Adrian Cavada II and Matt Cohen

December 17, 2013

## Information Gathering Results

More than 900 students from Central High School and Xavier College Preparatory responded to an informational survey inquiring about their preferences for development along the canal between Central Ave and Seventh St. The survey asked two questions:

1. What features and amenities would bring you to this future learning center and canal section along the banks of the Grand Canal?
2. What features might bring your parents and family to this section of the Grand Canal?

Survey responses were recorded into a database and coded by keywords. Responses were categorized into ten different themes that represent the most commonly identified student preferences. Table 1 provides the ten themes with examples taken directly from survey responses.

**TABLE 1: STUDENT PREFERENCE THEMES FROM CANALSCAPE SURVEY**

Theme	Examples
1. Recreation	Playgrounds, Parks, Outdoor Activities
2. Aesthetics	Cleaner, Pretty Scenery, Better Landscape
3. Shade	Trees, Shade Structure, Gazebos
4. Water	Water Fountains, Misters, Clean Water
5. Walkability	Walkways, Pavement, Smoother Ground
6. Safety	Railing Around Canal, More Security, Lighting
7. Vegetation	Plants, Greenery, Flowers
8. Food	Snack Shacks, Restaurants, Local Venders
9. Bike/Skateboard	Bike Trails, Boardwalks, Skate Parks
10. Seating	Seating Areas, Benches, Relaxing Areas to Sit

Table 2 tells how many students mentioned each thematic area as well as what percentage of the total population mentioned each theme. Some survey responses included mentions of multiple themes. For instance a respondent may discuss recreation, safety, and food in answer to one survey question.

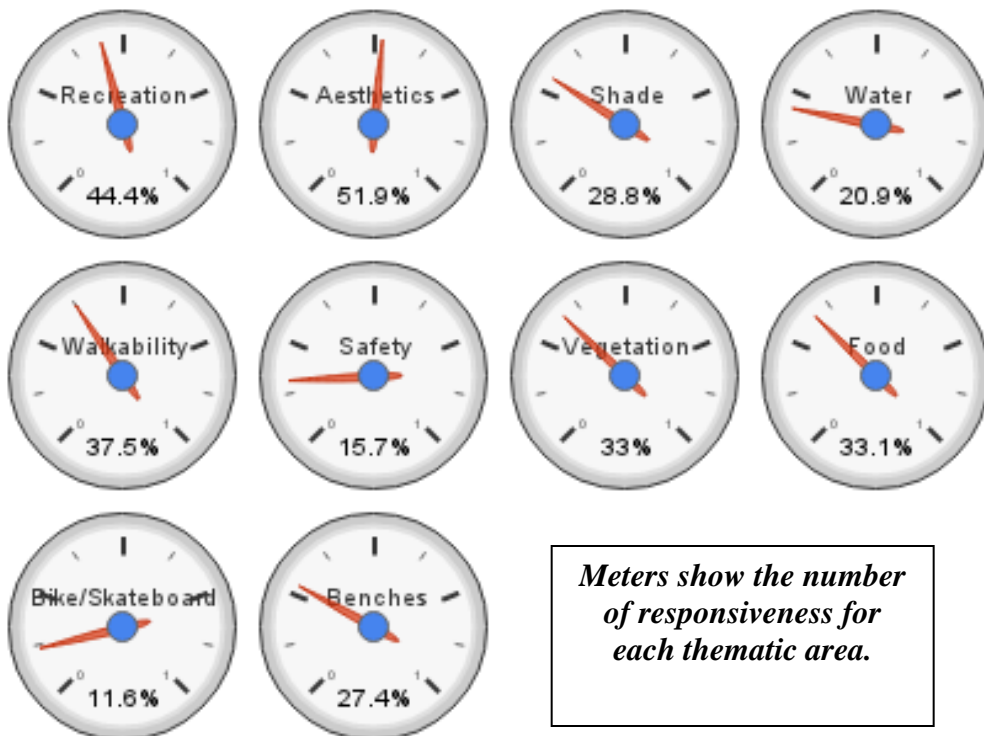
**TABLE 2: TOTAL RESPONSES PER THEMATIC AREA (n=910)**

<b>Theme</b>	<b>Number of Times Mentioned by Respondents</b>	<b>Percentage of Total Respondents</b>
1. Recreation	404	44.4%
2. Aesthetics	472	51.9%
3. Shade	262	28.8%
4. Water	190	20.9%
5. Walkability	341	37.5%
6. Safety	143	15.7%
7. Vegetation	300	33.0%
8. Food	301	33.0%
9. Bike/Skateboard	106	11.6%
10. Seating	249	27.4%

Aesthetics and Recreation opportunities were the two most issues concerning the students surveyed. 472 students (51.9% of total respondents) asked for improved aesthetics in their survey responses. 404 students (44.4% of total respondents) called for recreation opportunities along the canal.

The top priority of high school students is that the canal be made into a site where they can gather and have fun. As it currently stands, students don't view the canal as a place that they would spend time. However, if the corridor were beautified and featured recreational activities, then students could see themselves and their families spending time there.





## **Experience the Canal**

Picture this: walk along a vibrant canal bank colored by flowers, grass, trees, and public art. The aesthetic appeal attracts people to play and relax while native plants attract birds and other wildlife. Local kids are participating in an outdoor study course, while a family is enjoying a break from their sunny walk on a shaded bench under a tree.

There is a park nearby where kids of all ages swing and play on a jungle gym. You can hear the sound of children laughing as they enjoy their new park. Down the way a local band is performing a free concert for the community. This public space hosts of all sorts of events from musical performance to art walks to public movie nights and more.

A smooth, safe walking path leads further along the canal. Cyclists ride by on a designated bike path and teenagers on their way to the new skate park go by on their skate boards. In the afternoons, high school cross country teams run on the path for training.

As you continue on down the path, an aroma of food is in the air. Vendors have set up an impromptu outdoor dining area where they serve foods that have been grown locally. Some of the food is even grown in the garden beds that are dotted along the canal right of way.

What was once a thoroughway for bike and pedestrian traffic, the canal has become a destination in itself.

**Exhibit G –**  
Student Project Framework Sheets

# What is Nature and How Do We Manage It?

## Understanding Themes and Topics:

Ecology

- Fish
- Ducks
- Mussels
- BATS
- White AMUR

URBAN AGRICULTURE

- LOCAL/NATIVE FOODS

BIOMES

URBAN ECOLOGY

(ANTHROPE?)

URBAN WATERSHED

ENGINEERING  
EDUCATION

- Storm Water Management
- Bridges -> Bat Bridges
- Water Quality/Testing
- Boats
- Hydro/Solar power

Ecosystems

- Local Plants/NATIVE SPECIES
- Native Foods

WATER  
ECOSYSTEMS/  
WATER CYCLE

Whole watershed - Heat Island  
(issues and conflicts)  
- Waste

NATIVE AMER. TRADITIONS

(Vagabonds)

← MORE NATURAL

→ MORE MANAGEMENT

## PERFORMANCE TASKS

- K-12 Contests (Design) Collaborative across grades + schools
- You tube Videos
- Parent Display
- Environmental Scavenger Hunt
- Solar Powered Boat
- Cooking Demonstrations (Native Foods)

NATURE

MANAGEMENT

## EVIDENCE: COLLABORATIVE OUTCOMES

Learning Center: 3 section biotic ~~landscape~~ Landscape  
↳ Biome Garden

~~Biome~~ GARDEN:

Community / Demonstration / Native / Keroscape  
E1306

WATER TESTING SITE

BAT BRIDGE

INTERPRETIVE SIGNAGE / WALKS

FARMERS MARKET

## How should the Canal Connect Us?

UNDERSTANDINGS: THEMES / BIG IDEAS / TOPICS  
WATER WAYS: HISTORY, LANDMARKS  
HOW THEY WORK

WATER CONSERVATION  
WHAT IS WATER USED FOR?

HISTORICAL TRADITION: Native American: SACRED  
(CONNECTION THROUGH TIME) SPACE

PATHWAYS: BRIDGES, Connection to Park / Fences

RECREATION / EXERCISE

ART BRINGS PEOPLE TOGETHER

Civic Engagement

PERFORMANCE TASKS: PROJECT ACTIVITIES

BRING SCHOOLS TOGETHER - LEARNING CENTER

PARTNERSHIPS: CITY, SCOTTSDALE, BIKE SHARE,

K-12 CONTESTS - DESIGN COMMUNITY MEMBERS, Walton,  
YouTube VIDEO Earth Fest, Sci tech  
Fest

PARENT DISPLAY

FARMERS MARKET

X promotion

EVIDENCE: CONCRETE COLLABORATIVE OUTCOMES

ART DESIGN - ENVIRONMENTAL

- WASTE ART - FOUND IN CANAL

- Permanent (fence) / Functional

**Exhibit H –**  
Project Planning Sheets (3)



## **National Fish and Wildlife Foundation Grant**

### **Sustainability Project #2– BRIDGE and Bridging**

---

**ISSUED:** September 18, 2013

#### **DUE DATES:**

October meeting – present project concept and research requirements

November meeting – interim review

December meeting – interim review with guest critics; present concept for Event presentation

January meeting – review draft products for event; critique by Event Team for final production

February 22, 2013 Event deadline

#### **PROJECT ideas:**

1) What types of bridges have been built across the Canals over time? What is your vision for a new bridge at the new location, and what should the bridge accomplish and how can the bridge design relate to sustainability ? Build a model of your bridge.

2) What type of edge or barrier does the Canal between your schools create? What are the range of impacts of this edge or barrier? How should this barrier be bridged? Suggest civic level solutions.

#### **READINGS AND RESEARCH:**

*TBD*

#### **OBJECTIVES:**

Gain an understanding of the role the Canals have in delivering water to Phoenix and what impacts this delivery has on the environment, society and economy, plus understand what the Canals are already used for. Develop skills in team work, research and testing, design thinking and artwork production, and understanding of sustainability at the civic scale.

#### **PROJECT REQUIREMENTS:**

Coordination with overall Video production

Create Video to represent work on your Team Project

#### **LEARNING PRODUCTS FOR FEBRUARY 2014 EVENT:**

Banner or artwork for fencing display

Run interactive booth at event with displays



National Fish and Wildlife Foundation Grant

## **Sustainability Project #2– BRIDGE and Bridging**

### Project Planning Outline

Goals:

---

Understandings / Themes:

---

- *Big ideas, concepts, topic; explain how this is a sustainability project; how are the three pillars addressed (social, environmental, economic)*

## **BRIDGE**

Essential Questions:

---

- *Provocative question that will drive inquiry; define project content and outcomes, provide a central focus; consider all the educational, social, civic and environmental dimensions of this question.*

## **How should the Canals connect us?**

**BRIDGE:** What should the future “Learning Bridge” look like, and what should it accomplish and provide space for? How can design and construction of the “Learning Bridge” do for building community?



### Stakeholders:

---

*Who are the stakeholders? What persons or groups will be affected or have interest in this project? How will they be included?*

**Primary goal for teams to include students from other schools, to build bridges between the schools through interaction of students and teachers and administrators**

### Performance Tasks:

---

- *Authentic performance tasks, project activities*
- *Key skills students will learn, habits of mind to be practiced*
- *List preparations for special needs students with diverse learning styles*

### Skills:

**On-line research (history of bridge design nationally, history of canal development and engineering, sustainable engineering concepts, water quality issues, watershed issues, etc.)**

**Local case study research and site visits**

**Design thinking. Critical thinking and problem solving**

**Journaling**

**Environmental artwork with re-purposed materials**

**Model building**

**Oral project presentation / defense**

**Video design and production**

### Reflective means:

**Class discussions**

**Student facilitated formal debriefs**

**Group evaluations with guest critics from AZF, SRP, etc.**

Evidence: \_\_\_\_\_

*Journals, presentations, demonstrations, models, environmental artwork – collaborative project outcomes and PRODUCTS to be displayed at Public Event*

**Project presentations at the Event**

**Physical, to scale models to display at the Event (one booth per school, 4 models per school)**

**Artwork / banners on the fencing at the Event**

Project title: \_\_\_\_\_

List of Schools involved: \_\_\_\_\_

Classes / clubs/ groups: \_\_\_\_\_

Grade Levels: \_\_\_\_\_

Content Standards: \_\_\_\_\_



## **National Fish and Wildlife Foundation Grant**

### **Sustainability Project #1 – SHADE and Heat Relief**

---

**ISSUED:** September 18, 2013

#### **DUE DATES:**

October meeting – present project concept and research requirements

November meeting – interim review

December meeting – interim review with guest critics; present concept for Event presentation

January meeting – review draft products for event; critique by Event Team for final production

February 22, 2013 Event deadline

#### **PROJECT ideas:**

1) Design shade ramadas that will include use of living materials, keeping in mind how Native Americans created shade along the canals?. Create a model of a shade structure relating to this question.

2) Investigate how animals use and create shade; can strategies like these be used to create shade for humans along the canal? Create a model of a shade structure relating to this question.

#### **READINGS AND RESEARCH:**

*TBD*

#### **OBJECTIVES:**

Gain an understanding of the role the Canals have in delivering water to Phoenix and what impacts this delivery has on the environment, society and economy, plus understand what the Canal are already used for. Develop skills in team work, research and testing, design thinking and artwork production, and understanding of sustainability at the civic scale.

#### **PROJECT REQUIREMENTS:**

Coordination with overall Video production

Create Video to represent work on your Team Project

#### **LEARNING PRODUCTS FOR FEBRUARY 2014 EVENT:**

Banner or artwork for fencing display

Run interactive booth at event with displays

Prepare one large public presentation for the Event



National Fish and Wildlife Foundation Grant

## **Sustainability Project #1 – SHADE**

### Project Planning Outline

Goals:

---

Understandings / Themes:

---

- *Big ideas, concepts, topics; explain how this is a sustainability project; how are the three pillars addressed (social, environmental, economic)*

## **SHADE and Heat Relief**

Essential Question:

---

- *Provocative question that will drive inquiry; define project content and outcomes, provide a central focus*

## **What is Nature and how do we manage it?**

**What should future shade structures or elements or landscape systems that provide shade and heat relief along the Canal look like? What should they accomplish and provide space for?**

Stakeholders:

---

*Who are the stakeholders? What persons or groups will be affected or have interest in this project? How will they be included?*

**Primary goal for teams to include students from other schools, to build bridges between the schools through interaction of students and teachers and administrators**

Performance Tasks:

---

- *Authentic performance tasks, project activities*
- *Key skills students will learn, habits of mind to be practiced*
- *List preparations for special needs students with diverse learning styles*

Skills:

**On-line research (solar cycles, urban heat island issues, renewable energy issues, history of shade systems along the canal across time, etc.)**

**Local case study research and site visits**

**Design thinking, critical thinking and problem solving**

**Sketching and painting**

**Model building**

**Performance art**

**Video design and production**

Reflective means:

**Class discussions**

**Student facilitated formal debriefs**

**Group evaluations with guest critics from AZF, SRP, etc.**

Evidence: \_\_\_\_\_

*Journals, presentations, demonstrations, models, environmental artwork – collaborative project outcomes and PRODUCTS to be displayed at Public Event*

**Performance art event (repeat several times during the Event)**

**Physical, to scale models to display at the Event (one booth per school, 4 models per school)**

**Artwork / banners on the fencing at the Event**

Project title: \_\_\_\_\_

List of Schools involved: \_\_\_\_\_

Classes / clubs/ groups: \_\_\_\_\_

Grade Levels: \_\_\_\_\_

Content Standards: \_\_\_\_\_



## **National Fish and Wildlife Foundation Grant**

### **Sustainability Project #3– WATER and Water Quality**

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**ISSUED:** September 18, 2013

#### **DUE DATES:**

October meeting – present project concept and research requirements

November meeting – interim review

December meeting – interim review with guest critics; present concept for Event presentation

January meeting – review draft products for event; critique by Event Team for final production

February 22, 2013 Event deadline

#### **PROJECT ideas:**

1) Test water in the Canal across three month period to detect changes in water quality; project why the changes are happening, and what these changes in water quality will have impact on.

2) Test water in the Canal across three month period to determine how the water temperature changes with relative height in the canal; project why this occurs and what this has impact on.

#### **READINGS AND RESEARCH:**

*TBD*

#### **OBJECTIVES:**

Gain an understanding of the role the Canals have in delivering water to Phoenix and what impacts this delivery has on the environment, society and economy, plus understand what the Canals are already used for. Develop skills in team work, research and testing, design thinking and artwork production, and understanding of sustainability at the civic scale.

#### **PROJECT REQUIREMENTS:**

Coordination with overall Video production

Create Video to represent work on your Team Project

#### **LEARNING PRODUCTS FOR FEBRUARY 2014 EVENT:**

Banner or artwork for fencing display

Run interactive booth at event with displays

Prepare one large public presentation for the Event



## **National Fish and Wildlife Foundation Grant**

### **Sustainability Project #3– WATER and Water Quality**

#### **Project Planning Outline**

Goals:

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Understandings / Themes:

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- *Big ideas, concepts, topic; explain how this is a sustainability project; how are the three pillars addressed (social, environmental, economic)*

#### **WATER and Water Quality**

Essential Questions:

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- *Provocative question that will drive inquiry; define project content and outcomes, provide a central focus; consider all the educational, social, civic and environmental dimensions of this question.*

#### **How should the Canals connect us?**

**WATER:** How does the quality of the water within the Canals, the canal water ecosystem affects, and the actual structure of the canals affect end users on all sides and across the “supply chain”?



Stakeholders:

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*Who are the stakeholders? What persons or groups will be affected or have interest in this project? How will they be included?*

**Primary goal for teams to include students from other schools, to build bridges between the schools though interaction of students and teachers and administrators**

Performance Tasks:

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- *Authentic performance tasks, project activities*
- *Key skills students will learn, habits of mind to be practiced*
- *List preparations for special needs students with diverse learning styles*

Skills:

**On-line research (history of bridge design nationally, history of canal development and engineering, sustainable engineering concepts, water quality issues, watershed issues, etc.)**

**Local case study research and site visits**

**Design thinking, critical thinking and problem solving**

**Journaling**

**Environmental artwork with re-purposed materials**

**Model building**

**Oral project presentation / defense**

**Video design and production**

Reflective means:

**Class discussions**

**Student facilitated formal debriefs**

**Group evaluations with guest critics from AZF, SRP, etc.**

Evidence: \_\_\_\_\_

*Journals, presentations, demonstrations, models, environmental artwork – collaborative project outcomes and PRODUCTS to be displayed at Public Event*

**Project presentations at the Event**

**Physical, to scale models to display at the Event (one booth per school, 4 models per school)**

**Artwork / banners on the fencing at the Event**

Project title: \_\_\_\_\_

List of Schools involved: \_\_\_\_\_

Classes / clubs/ groups: \_\_\_\_\_

Grade Levels: \_\_\_\_\_

Content Standards: \_\_\_\_\_

**Exhibit I—**

**Project Description Sheet**



## **National Fish and Wildlife Foundation Grant**

### **Grand Central Learning Center Project**

### **Fall 2013 Student Sustainability Projects**

**ISSUED:** September 18, 2013

#### **PROJECT DESCRIPTION:**

The project will ask students from Central High, Brophy, Xavier and St. Francis Xavier schools to look at the section of the Grand Canal between Central Avenue and 7<sup>th</sup> Street, and begin to ask questions about how this section of the Grand Canal can be improved to offer an inviting environment for the four schools and larger community. This project will ask student teams to focus on several canal-based sustainability themes to develop their projects and project displays that will be displayed at a Public Event on February 22, 2014. The Event will be staged in the Phoenix Union High School District facilities parking lot, located just West of 7<sup>th</sup> Street and the District's football field.

#### **PROJECT MEETING SCHEDULE (dates to be verified):**

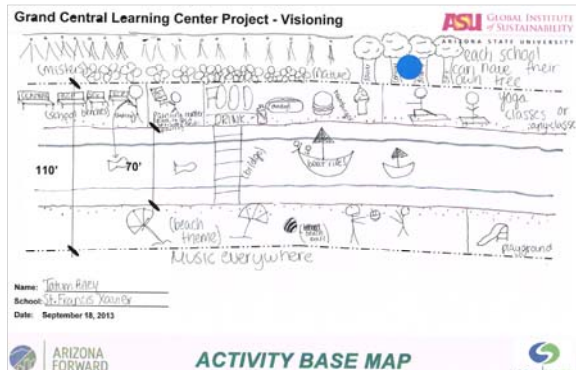
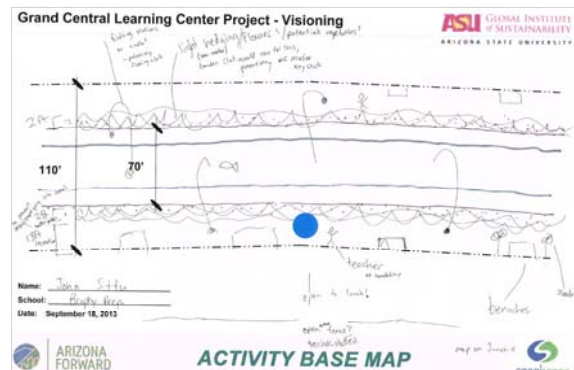
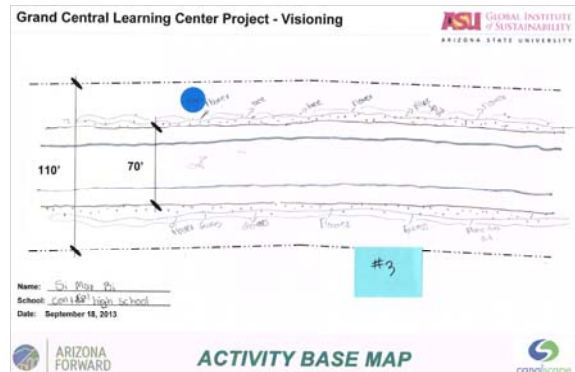
October 16, 2013 - Form Teams and overview Project  
November 20, 2013 - Share and Work Session #1  
December 18, 2013 - Share and Work Session #2 with guests  
January 15, 2014 - Share and Work Session #3 with Event Team  
February 12, 2014 - Coordination meeting with Event Team for set-up & staging  
February 22, 2014 - Public Event from 9 am to 12:30 pm

#### **TEAM REQUIREMENTS FOR THE FEBRUARY 2014 CANALSCAPE GRAND CENTRAL PROJECT EVENT:**

- Run (1) interactive booth at Event with display of your Team's project
- Coordination with other teams for large public presentation at the Public Event; presentation format to be determined
- Creation of a banner on your project, for display on fencing during the Public Event

**Exhibit J –**  
Student Visioning Boards



[illegible]

A hand-drawn site plan titled "Grand Central Learning Center Project - Visioning". The drawing shows a rectangular plot divided into several horizontal sections by dashed lines. On the left side, there are vertical dimension lines labeled "110'" and "70'". A blue circle is drawn near the bottom left corner. In the upper right area, there is a small sketch of a building with a gabled roof, labeled "Small Building". Handwritten notes include "Shade Solar" and "Install 1st phase" written diagonally across the lower right section. Other faint handwritten notes like "Central Building" and "Main Building" are visible. The top of the page has the title "Grand Central Learning Center Project - Visioning" and the ASU Global Institute of Sustainability logo and name. At the bottom, there is a footer with the Arizona Forward logo and the text "ACTIVITY BASE MAP".



**Exhibit K -**  
Student Project Form

## Grand Central Canal Project Title:

**Team Name:**

Team Members:

**Theme (circle one):** Water   Shade   Bridge

**Vision for Changes to the Canal (circle one)**

Infrastructure/Amenities   Ecosystem /Landscape   Art/Communication

### WHAT PRODUCT DO WE WANT TO CONSTRUCT TO EXPLAIN OUR VISION AT THE EVENT?

### THE SUSTAINABILITY ISSUE(S) ADDRESSED IN OUR PROJECT IS:

### WHAT ARE SOME INITIAL STEPS?

What research will we do?

How will the product be displayed?

How will we divide the work?

## Grand Central Canal Project Title:

**Team Name:**

Team Members:

**Theme (circle one):** Water   Shade   Bridge

**Vision for Changes to the Canal (circle one)**

Infrastructure/Amenities   Ecosystem /Landscape   Art/Communication

### WHAT WILL THE AUDIENCE LEARN FROM OUR PRODUCT?

### WHAT DO WE EXPECT TO LEARN FROM CREATING OUR PRODUCT?

### WE NEED THE FOLLOWING RESOURCES TO CREATE OUR PRODUCT

**Exhibit L-**

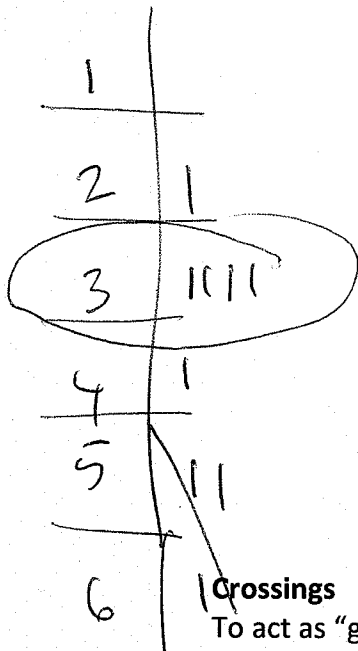
Tallied Site Plan Program Lists



# ARIZONA FORWARD

## The Grand Central Learning Center Project

Site Plan Program  
from input gathered at meetings #1 through #4



### Crossings

To act as "gateways"  
Exhibits  
Interpretive signage  
Hawk crossing / safe crossings  
Celebrate entries to area

### Linear features

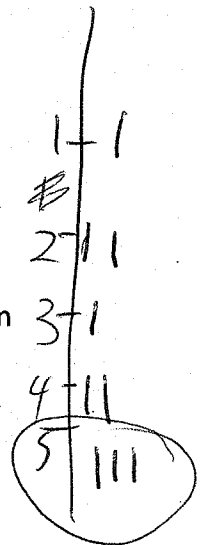
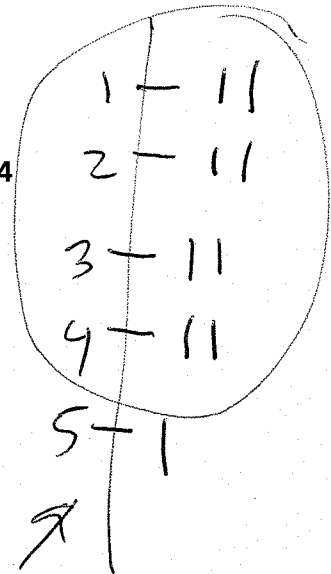
Public path + greenspace  
Light rail access  
Less fencing  
Pretty fencing with art  
Trees and shade  
Good canal edge like Scottsdale  
Paving for recreation, territoriality  
Water stations  
Public art + landmarks  
History on canal banks  
Adequate trash cans  
Shaded benches + seating  
Shade structures  
Naturalistic trails  
Interpretive signage  
Student art / community art  
Environmental outdoor art  
Night lighting  
More Ecology in the canal  
Food carts

### Learning Bridge

Connection to park  
Bat Bridge  
Bridge as "park"  
Canal overlooks  
Water testing site  
Outdoor classroom  
Collaborative bridge  
Bring the schools together

### Learning Center

Shared Ed Facilities  
Outdoor Learning Center  
Outdoor classrooms  
(Storm) water / cycle demonstration  
Green houses + ecology  
Play center with water, water park  
Child gateway to learning  
Bird sanctuary  
Quiet spaces, spiritual reflection  
Native American center  
Experiential pathways  
Outdoor theatre  
Sustainable buildings  
Hydro, solar power demonstrations  
Time capsule  
Athletics – (basketball court, skateboard area, public batting cages)



## Community Gardens + Agriculture

### + Farmers Market

Community gardens

Student gardens

Biotic community demonstration

Giving garden like Glendale

Cooking areas for classes; use veggies grown on site

Native plants

Flowers + wildflowers

Local native veggies

Grassy walls kids can play on

Urban agriculture

Farmers market run by schools

Urban market

1	1
2	
3	1
4	11
5	11
6	11

## Build Connections

Between schools – curriculum / events

Between schools – less chain link fencing

With local businesses and community

Phoenix Bike Share program

Paths to Steele Indian School Park

1	1
2	11
3	
4	1
5	
6	1

## **Exhibit M -**

### Student Project Teams

Canalscape Grand Central Student Teams - Team members, themes, visions for change			
<i>February 12, 2014 final</i>			
<b>Three Student Teams:</b>	<b>School</b>	<b>Commitment Form</b>	<b>Photography / Video Release form</b>
<b>Art / Communication</b>	<b>Theme: BRIDGE, connection between schools, art, canal, community</b>		
	<b>Vision for Change: Art Walls across the canal with night lighting</b>		
<b>Team leader: Tatiana</b>			
Tatiana Rosales	St. Francis	yes	Yes
Penelope Ramos	Central	yes	yes
Joseph Cruz	Central	yes	yes
Anais Gutierrez	St. Francis	yes	yes
Lisa Moreno	Central	yes	yes
<b>Infrastructure / Amenities</b>	<b>Theme: WATER + Bridging Community</b>		
	<b>Vision for Change: Benches, bridge, water fountains, bike path/racks</b>		
<b>Team leader: Kate</b>			
Kate Randolph	Xavier	yes	Yes
Tina Monteith	Xavier	yes	Yes
Mallory Miller	Xavier	yes	Yes
Matthew Burleson	Brophy	yes	yes
Will Olesiewicz	Brophy	yes	yes
Mar Met Sa Lin	Central	yes	yes
Hannah Toledo	Xavier	yes	Yes
Charlie Regester	Xavier	yes	yes
<b>Ecosystem / Landscape</b>	<b>Theme: Planting</b>		
	<b>Vision for Change: Raised garden beds, bushes and trees, create ecosystem</b>		
<b>Team Leader: John</b>			
Dominique Jablonski	St. Francis	Yes	yes
John Sittu	Brophy	yes	yes
Mira Briestensky	St. Francis	Yes	yes
Alex Frankhavser	Brophy		yes
Tatum Riley	St. Francis	yes	yes
Ulysses Sarmiento	Central		yes