EWB: Central Houston Chapter Meeting

December 2013
Agenda

7:00 – 7:02 Meet and Greet
7:02 – 7:05 Regional Conference Report
7:05 – 7:20 Houston Raingarden Project Update
7:20 – 7:30 Spirit Lake Trip Report
7:30 – 7:40 Thailand PIT
7:40 – 7:50 India 2 PIT
7:50 – 7:55 Election Report
7:55 – 7:59 Reflect
8:00 Swear In Officers and Board; Adjourn for a bit of celebratory time together
South Central Regional Conference

• CH Attendees
  - Terry Applegate, Dan Kennedy, Nancy Kralick, Nicole Regobert

• Training Sessions
  - Solar Power, Health & Safety, Cultural Planning, Chapter Relations, PMEL, CAD Modeling, Photo & Video, Mentoring, Soil Classification, Water Testing, Heat Transfer, Chapter Management, Project Documentation, Grant Writing, Lessons Learned, Fundraising

• Networking (Geocaching opportunity lead)

• Recognition
  - Central Houston = Premier Professional Chapter

Links

- Houston Raingarden
- Spirit Lake
- Thailand
- India 2
EWB Rain-garden Project: Demonstrate Low Impact Urban Development Techniques

December 11, 2013
The Effects of Development

Water is retained for the shortest possible time and then released into the surrounding surface waters leading to flooding.
Houston Drainage Problem
Project Charter

- **Demonstrate** Low Impact Urban Development ("LID") solutions including a bioswale, raingarden, permeable pavers, green screens, and solar lighting

- **Educate**: provide signage and educational resources that explain the benefits of LID in the GBRC and how to investigate further
Project Benefits

- **Expand** the deployment of LID solutions in Houston through increased awareness and education
- **Foster Code Revision** for LID techniques within the Houston permitting area.
- **Beautify** one small corner of Houston
Project Partners

• EWB Houston Professional Chapter
• Green Building Resource Center
• City of Houston Permitting Office
• City of Houston Mayor’s Office
• Walter P. Moore, Consulting Engineers
• Asakura Robinson, Landscape Architects
• Pavestone, Landscape Supplier
• Nature’s Way Resources, Soil Scientists
• West U. Rotary
• tbd
Project Site

Aerial view of the Houston Permitting Office, the Green Building Resource Center and terminal; 1002 Washington Ave.
Project Overall

Project Sites (cont.)

1. Rain Garden
2. Plaza Space
3. Amtrak Drop Off
4. Bioswale
5. Pedestrian Crossing
6. Permeable Paver Parking Lot
7. Access to HPC Employee Parking
8. HPC Gardens
9. Screen I-45
10. Screen Power Station
11. Sign/Banner to Gardens
12. Bollards
13. Solar Light Posts
Project Site, Phase 1

Proposed new Bioswale & sidewalk at the Green Building Resource Center; 1002 Washington Ave.
## Budget, Phase 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Owner</th>
<th>Total Value of Service</th>
<th>Cost to Project</th>
<th>Donations</th>
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<tr>
<td>Project Management</td>
<td>EWB Team</td>
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<tr>
<td>Landscape Architect</td>
<td>Asakura Robinson</td>
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<td>Engineering Support</td>
<td>Walter P Moore</td>
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<td>20000</td>
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<td>Primary Bioswale &amp; sidewalk demolition</td>
<td>Houston Permitting Office</td>
<td>2000</td>
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<td>2000</td>
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<td>Primary Bioswale &amp; sidewalk construction</td>
<td>contractor TBD</td>
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<td>Bioswale materials</td>
<td>Nature’s Way</td>
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<td>Pavestone pavers</td>
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<td>2500</td>
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<td>2500</td>
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<td>volunteer labor for planting vegetation</td>
<td>EWB Team</td>
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<tr>
<td></td>
<td>TBD</td>
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<td><strong>20000</strong></td>
<td><strong>60000</strong></td>
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## Project Timeline

<table>
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<tr>
<th>Phase 1: Bioswale on North side of Washington- coordinate with Parking lot overlay.</th>
<th>Target Completion</th>
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<tbody>
<tr>
<td>finalize parking lot layout, bus lane &amp; entrance design</td>
<td>complete 10/19/13</td>
</tr>
<tr>
<td>get final layout approved- delayed</td>
<td>complete 11/15/13</td>
</tr>
<tr>
<td>Prepare permit package for bioswale</td>
<td>in progress</td>
</tr>
<tr>
<td>Submit Permit package to PWE for review</td>
<td>Dec 14, 2013</td>
</tr>
<tr>
<td>Submit Permit package to ATT &amp; Centerpoint for review</td>
<td>Dec 18, 2013</td>
</tr>
<tr>
<td>Respond to comments &amp; submit for final signatures</td>
<td>Jan 11, 2014</td>
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<tr>
<td>permit approved.</td>
<td>Jan 25, 2014</td>
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<tr>
<td>Close on sidewalk design</td>
<td>Jan 11, 2014</td>
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<tr>
<td>Parking Lot Construction begins</td>
<td>Feb 8, 2014</td>
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<tr>
<td>Bioswale Demolition begins</td>
<td>Feb 15, 2014</td>
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Bioswale Cross-section

Bioswale Planting (See Plant List)
3” Fine Shredded Hardwood Mulch
Parking Surface by Others

Bioswale Soil Mix
Specifications:
70% Sharp Sand
20% Compost
10% Sandy Loam

Note:
1. bioswale elevation shall be 6’-8” min. below the lowest adjacent elevation.
2. bioswales shall not be constructed until all contributing drainage areas have been stabilized.
3. coordinate perforated pipe underdrain system with civil drawings.

1”-2” dia. Recycle concrete
Non-Woven Filter fabric @ sides & bottom only. Fabric should be with the flow rate of 120 gpm/sf. Gravel pocket top to remain unwarped. Fabric shall have a high flow rate.

15”-3” dia. Crushed recycled concrete w/ water-permeable filter fabric & steel edging. Provide 4” gaps in steel edging every 6’-8” o.c. to allow drainage.
Bioswale

Benefits:

• Decrease Runoff
• Increase Quality
• “Slow it down, Spread it out, Soak it in”
• Minimize imperviousness
• Promote natural movement of water
Permeable Pavers

Benefits:

• Improve storm water percolation to the soil

• Improve quality of water through pollutant filtration
Back- Up Slides
Solar Lightning
Screens
Sponsorship Benefits

We look forward to partnering with our sponsors by offering these benefits:

- Signage inside and outside the GRBC
- Publicity in the EWB website
- Publicity in the GRBC website
- Publicity during the kick off meeting with the Mayor/Deputy Mayor
SPIRIT LAKE, ND
Assessment Trip

November 2013
Vatanyoo Vichitrananda
Nicole Regobert
Paul Gordon
Joseph Sabio
Spirit Lake Nation

• Native American
• 4,300 enrolled members living on reservation
• Reservation is located east – central North Dakota on the southern shores of Devils Lake.

• http://www.youtube.com/watch?v=jU5_S7WQYvc
Project Information

- Engineering Design for Tokio Food Pantry in North Dakota.
- New metal structure
- 40 ft x 60 ft
- Multipurpose building, church services, meeting room, offices, kitchen, daycare and storage

http://www.gh-training.org/north-dakota/
Site Visit

- Dimension and design of exiting structure
- Utilities
- Elevation
- Soil conditions
- Community discussions
Layout

- Church (demolished)
- Warehouse
- Playground
- Gymnasium + Post Office
- Proposed Area of New Building
Layout

140 ft x 200 ft
Site Assessments
Warehouse

- Metal Building
- Building still in good conditions
- Food Storage
- Roof Leakage

Supplier:
- Building: Anderson Steel
  (http://www.andersonsteel.com/)
- Door: SteelCraft
  (http://www.steel-craft.ca)
Warehouse
Community Center
End Users

- Food pantry serve 200 families with up to 10 person per family
- Food supply by 18-wheel truckin monthly basis
- Operate by volunteers
- Basic equipment
- Easy to use
Community Discussions
Fort Totten Office
Conceptual Design

- **Meeting room**
  - (50 ppl max)
  - Church service on Sunday
- **2 Offices**
- **Daycare**
- **Kitchen** (Fridge, stove, etc.)
  - Cooking Class
- **Restrooms**
- **Storage room** (non food storage such as, dish soap, etc.)
- **Janitor room** (washer/dryer)
Scope of service

**Work includes:**
- Engineering design of new building
- Design of new parking lot
- Renovate of existing building

**Work excludes:**
- Site preparation
- Heating and Air conditioning system
- Construction
- Sanitary System
Budget & Schedule

- $150k for building structure (to be confirmed)
- No heavy equipment access in winter (road damage)
- Construction in Spring-Summer
Community College
Community Life
Handicraft
ENGINEERS
WITHOUT
BORDERS

THAILAND PROJECT
Thailand: Yom Maejanoi

THE PROJECT

- **Project Name**: Water Containment and Distribution
- **Community Name**: Yom Maejanoi
- **Location**: Maehongson Region, North Thailand
- **Requirement**: The community of Yom Maejanoi is in need of a system to collect water and distribute for both drinking and irrigation.
- **Purpose**: To provide drinking water to small communities located outside of the city of Maehongson with hopes to develop an irrigation system.
- **Outcome**: The people hope to enhance quality of life along with farming capabilities which would lead to a self sustaining community.
- **Partnering NGO**: Life Encounter Asia Foundations (LEAF)
Thailand: Yom Maeianoi

LOCATION

• 950km from the city of Bangkok

• North Thailand near Myanmar border

• People migrated from mountains and settled in these communities
Local Community - Maejanoi

- 100 people
- CBO - “Maejanoi boek baan”
- Karen Church Community
- Community Leader – Mrs. “Bee”

Extended Community

- Chagnaam – 22 households
- Huaipongnai – 33 households
- Huaipongnoak – 43 households
- Phadeng – 22 households
STATUS:

- Application submitted 11/30/13
  - Review by Application Review Committee
    » Response by 12/30/13

NEXT STEPS:

- 502 Chapter Application
  - End of January

- Pre Assessment Documentation
  - Part 1 Administrative Information (521)
  - Part 2 Technical Information (521)
  - Health and Safety Plan (600)
    » Form 606 – Emergency Contact Information
    » Minimum of 2 Health and safety officers are required for each trip
  - Planning Monitoring, Evaluation and Learning Plan (900)
    » Project Monitoring Indicators (901)
    » Project Agreement (902)
    » PMEL Lead (904): PMEL Lead Qualifications
  - Resume of Professional Mentor
  - QA/QC Cost Allocation

- Assessment Trip (April 2014)
TEAM MEMBERS WANTED!!

- Design
- Health and Safety
- Logistics
- Grant Writing
- Marketing
- Fundraising
Construction Timeline

5 years

Approval

Assessment
1. Understand community needs
2. Identify community leadership
3. Identify potential vendors

Construction
1. Labor provided by community
2. Material Purchased by EWB
3. Site oversight by volunteers

Monitoring
1. Identify additional scope
2. Monitor previous scope

Close-out
Questions?!?

Contact Information:
grmorini@bechtel.com
Khandoli Village Training Center
Community
Khandoli Village, Eastern India

- Tribal Area
- Khandoli Village, Giridih District, Eastern India, Jharkhand State, India
- Poor education facilities
- Very low income in the region
- Mostly dependent on agriculture
- Inadequate industrial skills
Vision and Commitment by Ekal Vidyalaya

• This Project has been made possible only by Ekal’s continuous support and vision in advancement of the communities left behind.

• Ekal Vidyalaya is one of the largest NGO in India supported by Indians overseas committed to make a positive change in the lives of the rural communities.

• Ekal has already made a difference in the lives of millions of children by providing early education.

• Ekal is now taking measures to improve the lives of people by providing industrial skills and agricultural skills to adults; men and women.

• Mr. Ramesh Shah President of Ekal USA is in Houston to provide any information we may need.
Outline

• Agricultural training in organic gardens
• Fruit Trees plantation
• Vegetable plantation
• Marketing agricultural produce
• Industrial training – Electrical, Plumbing, Solar lighting, computer training
• Food processing
• Health protection and nutrition training
Progress to-date

- 501 application submitted to EWB
- Purchased over 10 acres of land
- Three sides of land fenced
- Vegetables and fruit trees planted on part of the land
- A storage shed to store materials built
- Two deep well boring completed
- 100 Nutritional garden work are done at the farmers land
- Program for 1000 village people meeting planned for December 27th.
Work to complete

• To finalize the plan for the training center based upon the number of training programs
• Design the building
• Hire the training head for future planning of staff requirement and training materials
• Obtain funding for materials, construction and hiring of training personnel
• Design and construct the training center
• Prepare for student admission procedures and the follow-up activities
• This would make a positive change in the life of 3,000 - 10,000 people
2014 Election Report

- **2014 Officers**
  - President – Dan Kennedy
  - Vice President – John Ngunjiri
  - Secretary – Laura Styles
  - Treasurer – Ruth Alkons – Wolinsky
  - Fundraising Chair – Andrew Gabris

- **2014 Committee Chairpersons**
  - University Liaison – Rich Koenig
  - Communications Officer – Travis Rushing
  - Membership Coordinator – Nicole Regobert
  - Outreach Chair – Po Ho
  - Program Coordinator – Checking
  - QA/Training Program Chair – Open
  - Technology Team Lead – Checking
Reflect

• Context:
  – I am very goal oriented.
  – I set no goals for the chapter for 2013.
  – Basic desire = Leave chapter better than I found it.

• We’ve come a long way!
  – Program pipeline is full to overflowing.
  – Financial strength is still intact.
  – Fully functioning board and program teams.
  – Premier chapter recognition.
  – Transition to a new team for 2014 progressing well.
More Reflecting

• We’ve still a long way to go.
  - Program pipeline needs management and smoothing.
  - Financial strength is vulnerable.
  - Limiting factors for teams need addressed.
  - We need to spend some time on our people pipeline.
  - We need to fill our role in the organizational ecosystem.

• The results are worth the work!
Our Vision
Our vision is a world in which the communities we serve have the capacity to sustainably meet their basic human needs, and that our members have enriched global perspectives through the innovative professional educational opportunities that the EWB-USA program provides.

Our Mission
EWB-USA supports community-driven development programs worldwide by collaborating with local partners to design and implement sustainable engineering projects, while creating transformative experiences and responsible leaders.