



Competition Rules & Submission Requirements

Memphis-Shelby County Office of Sustainability in partnership with the City of Memphis Stormwater Program, Shelby County Engineering, ULI Memphis, Tennessee Chapter of the American Society of Landscape Architects (TNASLA), Tennessee American Planning Association (TAPA), West Tennessee Branch-American Society of Civil Engineers (West TN ASCE), and Memphis Urban Area Metropolitan Planning Organization present Memphis-Shelby County Low Impact Development Design Competition. The competition funds are provided by a grant from the Tennessee Department of Environment and Conservation (TDEC), Tennessee Stormwater Association (TNSA), Tennessee Valley Authority (TVA), and Tennessee Department of Transportation (TDOT).

A competition is an innovative way to encourage professionals to use Low Impact Development (LID) as a way to treat stormwater on site through natural infiltration. In 2010, the first LID design competition was launched in Houston, Texas on flat, clay land. Over the past few years other cities have followed their lead. Houston's competition entries showed a 5%-30% reduction in development costs and by 2011 the area saw more than 100 LID-based projects submitted for development up from zero the previous year. Firms that participated in the competition then became the leaders in the new LID marketplace, changing their previous way of doing business. Today they continue to foster a long-term collaborative relationship with other team members. If this same result can be extrapolated to the Memphis-Shelby County area, the movement will also trend toward LID designs.

Benefits of Participation

- Winning team receives \$15,000.
- Opportunity to present in a finals event before local developers and leaders.

Competition Calendar

March 17, 2014 Registration opens & competition begins.

April 11, 2014 Registration closes at 3:00 PM CST.

July 18, 2014 Competition ends. Round one submittals must be received by 3:00 PM CST.

August 8, 2014 Finalists announced.

Sept 3, 2014 Round two submittals (foamcore boards & finalists' PowerPoint presentation) must be received by 3:00 CST.

Sept 4, 2014 Finals Event and Awards Program **in the evening at the Dixon Gallery and Gardens.**

Competition Objectives

- Provide a hands-on learning experience through which design, construction and development professionals in the Memphis-Shelby County area will gain meaningful experience in working with Low Impact Development methodologies that can be applied to their everyday practices.
- Demonstrate to local design professionals, and to the development and civic communities, the economic, environmental and marketing benefits that are available to those developers and local governmental entities who adopt and innovate with respect to sustainable site development.

- Encourage through the body of work represented by the entries submitted greater use of these beneficial techniques for sustainable development in our area.
- Recognize the participants and finalist design teams for their creativity, innovation and application of sustainable site design.
- Prepare participants for potential upcoming regulations that will facilitate Low Impact Development techniques by giving them an open forum to explore ideas and design methods that strive to accelerate the implementation of innovative LID technologies.

Eligibility

- Each entry must come from an integrated design team consisting of a minimum of these two licensed participants: ***one licensed Civil Engineer & one licensed Landscape Architect.***
- A team finder has been established to help participants locate potential teammates. [Click here for the team finder.](#)
- There are no limits on the number of individuals from a single firm that may participate in the competition as members of teams. One interdisciplinary firm could theoretically serve as one team if they had a licensed Landscape Architect and Civil Engineer.
- Teams with members who are based outside the Memphis-Shelby County area are welcome, but one licensed professional (either the Civil Engineer or Landscape Architect) must be verifiably Shelby County-based.
- The inclusion of team members from the Architect, Land Planning, Development, Homebuilding and Construction disciplines, and students are encouraged.
- Individuals may not participate on more than one team (e.g. Architect John Doe cannot serve with Team #3 and Team #4).

Design Goals

- Conserve natural resources that provide natural functions associated with controlling and filtering stormwater.
- Use decentralized, small-scale landscape features and LID Integrated Management Practices (IMP) to work as a system to:
 - Reduce the amount of runoff by mimicking the natural hydrologic function of the site and matching pre-development hydrology.
 - Minimize the use of and/or reduce the size of pipe and other centralized control and treatment infrastructure.
 - Lower the total cost of development when compared to traditional infrastructure design.
- Minimize and disconnect impervious surfaces, lengthen time of concentration and promote bio-filtration of runoff to improve the quality of stormwater leaving the site.
- Minimize or eliminate the use of potable water resources needed for irrigation and where practical provide for the reuse of rainwater.
- Use enhanced quality of life values and reduced maintenance costs inherent in LID practices to increase marketability of the development and long-term property values.

Registration

- [Click here for the Registration Form.](#) Registration Forms must be received no later than April 11, 2014 by 3:00 PM CST.

The Design Challenge

The design challenge represents an actual property for which the owner has an interest in developing utilizing the sustainable methods to be showcased in this competition. Available information such as site survey, topo map, zoning and land use, and other available information are provided and represent actual data from the site involved.

- [Click here for the criteria and program for the Design Challenge Site.](#)
- Please do NOT contact the owner of the property. Any questions should be directed to the Memphis-Shelby County LID Design Competition Google Group Forum by [posting here](#). This will insure all questions and answers are available to the teams.

Submission Requirements (Round One)

All entry submissions must be received no later than July 18 at 3:00 CST. Each entry must be submitted as follows:

- If teams have added more members than listed on their original Registration Form, they must submit a revised form with all information and signatures. This should be either a stand-alone pdf emailed to christine.donhardt@memphistn.gov or a hard copy sent through US mail separate from the submission below. If there were no additional team members added, then disregard.
- Competition entries must not have any identifying features or marks which might reveal the identity of any member of the design team or any organization that may be represented by members of the team.
- Competition entries must not infringe the copyright of any other work, either in whole or in part. Do not use images from magazines, books, or websites. If a copyright infringement is found, the entry will be disqualified.
- Design in accordance with the [Memphis-Shelby County UDC](#) & [Nashville's Low Impact Development Stormwater Management Manual](#). The design competition is to serve as a precursor or a catalyst to what might happen in the Memphis region in the future. Right now there is no local design manual published in West TN although many municipalities are developing one. The equations found in the Nashville manual will be the same regardless of municipality. These equations will aid teams in determining which LID technique to use. When site specific numbers are used, the answers will be site specific as well. If applicable, use Nashville's incentives as well when figuring cost. *[During this process if you have any feedback that would be useful for inclusion in a stormwater management manual please provide that separately via email].*
- All projects must utilize LID features as the predominant stormwater infrastructure system. Designs incorporating mechanically "pumped" outfall discharges are highly discouraged. Selected stormwater quality and LID best management practices should be designed to infiltrate, evapotranspire, or harvest and reuse at minimum the first one inch of rain event preceded by 72 hours of no measurable precipitation that falls within the project limits (disturbed area). The first one inch must be 100% managed with no discharge to surface waters, if this cannot be done due to infiltration capacity of the soil, then the remainder of the rainfall must be treated prior to discharge to remove 80% TSS.
- Failure to follow the competition rules and submission requirements will result in disqualification.
- An electronic submission package must be received in PDF format. The submission package should include one completed PDF document with a maximum of 30 pages (suggested package would be 10-15 pages). Submissions will be judged electronically, no paper copy will be judged; therefore any combination of page sizes is acceptable. Various submittal options are:
 - [WeTransfer](#). Please post to both the email addresses: christine.donhardt@memphistn.gov & paul.young@memphistn.gov. Please note there is at least a 15 minute lag time between submitting and receiving.
 - [CD or USB](#). This can be mailed or hand delivered to:
Office of Sustainability
125 N. Main St, Ste 468

Memphis, TN 38103

- Note if hand delivered, materials must be accepted directly by the Office of Sustainability Staff only (Christine Donhardt, Paul Young, or John Zeanah) who will then issue a receipt with the date and time. Please do not drop items off with anyone else.
- The PDF packet will include:
 1. A cover page consisting only of the team's identifying number in large font.
 2. Abstract statement of no more than 150 words.
 3. Narrative of no more than 1,500 words that describes the project, summarizes the design team's concept, articulates the stormwater management strategy, discusses maintainability and marketability, and shows the percentage reduction of stormwater runoff volume, if any. If a variance on a LID technique is required, please note that here.
 4. Full schematic package (no color renderings allowed except colored arrows indicating water flow if necessary):
 - Site Layout
 - Drainage Schematic
 - One section or elevation
 - One detail of a LID feature
 - Landscape Schematic
 - Include how irrigation is addressed. This can be either in text or in schematic form but not a full irrigation plan.
 5. Estimate of the drainage calculations (this is not a full Hydrologic & Hydraulic model). Include an explanation of why certain LID features were chosen and how it affects the calculations (like how many gallons are taken out of the system).
 6. Preliminary Cost Estimate table (estimate of the construction costs in table form).
 7. Using the Cost Estimate and stormwater calculations, determine the ratio of cost per gallon of water remediated.
 8. Green vs. Grey: In a table, compare the costs of the LID-focused design vs. a traditional design for a similar sized development. This is an estimate; teams do not have to submit a second design. For example of a table, see link within the Design Challenge Site document. **[Suggestion: Please use your "best professional judgment" in determining the total costs of Green vs Gray. The table should be legitimate 'ballpark' numbers that you can defend. You can also include information to back up your estimate/judgment to provide context on how you got to that number.]**

Expert Judging (Round One) -- 80%

- The first round of judging will be conducted by a panel of five expert judges with pertinent experience and expertise. These judges are all core founding members of the Houston Land/Water Sustainability Forum (HLWSF), the professionals who established the original LID Design Competition that transformed how development was done in their region. They are experts in their fields and have worked with LID projects for many years. *(In the event of an unforeseen absence, substitutions may be made).*
 - John Blount PE, Deputy Executive Director of Public Infrastructure Department, Harris County
 - Margaret Robinson, ASLA, LEED AP, Partner at Asakura Robinson (past President Texas ASLA)
 - Kathleen English AIA, LEED AP, Owner of English + Associates (past President, AIA Houston)
 - Charlie Penland PE, LEED AP, Senior Principal & Executive Director Civil Engineering at Walter P Moore & Associates
 - Robert Adair, President & Co-Founder of Convergent Water Technologies and Construction EcoServices and Steering Committee Chair of Houston Land/Water Sustainability Forum
- The top finalists (approximately 3) will be determined by the scoring of the expert judges and will represent 80% of the finalist's total final score.

- In addition to addressing how well the proposal meets the overall Submission Requirements as set forth in the section above, these are additional items judges will consider:
 - Does the design avoid incorporating mechanically “pumped” outfall discharges?
 - How well does the design comply with the Memphis-Shelby County UDC & Nashville LID Manual?
 - How well does the design manage the 1st inch of a qualifying rain event with runoff reduction stormwater control measures (SCMs) designed to either: infiltrate, evapotranspire, or capture and reuse?
 - Are the LID features appropriately adapted for our region (i.e. soil conditions, annual rainfall, storm intensity, etc.)?
 - Is there a spirit of innovation and concern for aesthetics in this project?

Submission Requirements (Round Two)

If selected as a finalist, the following must be received no later than **September 3, 2014** at 3:00 CST.

- The drawings at this stage should be color rendered for audience appeal and team names should be included on the material.
- Teams will submit at least one, but no more than two foamcore presentation boards (24”x 36”), on which the team’s key concepts and elements of the design are presented visually, including a summary of the stormwater results. Boards will be displayed with identifying team information at the final event and may be used in a traveling exhibit following the competition.
- All other registered teams, even if they are not selected as finalists are encouraged to produce a foamcore for display during the final event, however this display is not required for them.
- A “Lightning Presentation” will be compiled by finalists to present their design challenge solutions at the final event to a large jury panel. This format is designed to make each presentation short, exciting and to the point, and will allow for participation of a maximum number of finalists.
 - Each finalist team will have up to 7 minutes to make their presentation.
 - A maximum of 20 PowerPoint pages (slides) may be utilized in the presentation.
 - Regardless of the number of pages used, the presentation must be set up on a timed sequencing routine to advance each slide. No remote slide changers will be permitted.
 - PowerPoint files must be submitted to competition coordinators the day before the finals event to check for sequencing.
 - For more information on using fast-paced presentation techniques view this: <http://en.wikipedia.org/wiki/PechaKucha> and for recordings of the Houston presentations view this: <http://bit.ly/1k5Zooq>

Final Event with Jury Presentations (Round Two) -- 20%

- In round two of the competition, finalists will present their entries, verbally and through use of PowerPoint, to a local jury panel made up of influential leaders in the Memphis-Shelby County area from the development, civic and government community. A large audience will include other contestants, development and construction professionals as well as civic and governmental leaders from throughout the area.
- The scores of the jury panel will account for 20% of the total final score for each finalist entry and will be combined with the expert judges scores’ from round one to determine the winners.
- Tabulation of jury panel scores and total final scores, and the determination of winners will take place immediately after the finalists make their presentations.
 - A short intermission (approximately 30 minutes while tabulations are made) will provide attendees with time for networking, viewing of the presentation boards submitted by entrants and conversation.

Awards

- Presentation of awards to the winners will be the highlight and culmination of the final event.
- **Final event will take place September 4, 2014 in the evening at the Dixon Gallery and Gardens.**
- A cash prize in the amount of \$15,000 will be awarded to the winner.
- **A cash prize in an amount TBD will be awarded to the second place team.**

More Information on Low Impact Development

- www.houstonlwsforum.org/designCompetition/LIDLinks.pdf
- www.sustainableselby.com/LIDworkshop

Moderated discussions can be found on our Google Groups pages:

- Looking for a team? [Click here for the team finder.](#)
- Have a question? [Post here.](#)

Partners:

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Special thanks to Houston Land/Water Sustainability Forum (HLWSF) for use of their original competition rules that have been modified above for Memphis-Shelby County.

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