



Clean Water. Healthy Life.

BEST PRACTICES *for* STORMWATER MANAGEMENT IN METROPOLITAN KANSAS CITY

CONSERVATION & LOW IMPACT DEVELOPMENT

Conservation & Low Impact Development, NE 136th & David Road, Kearney, Missouri

Goals

To create a new development that is environmentally friendly. This project will serve as a local model which will highlight the economic and environmental benefits to controlling quantity and improving the quality of stormwater runoff.

Description

Oakbrook is being developed pursuant to the Conservation District (CD) of Clay County Land Development Code. This is a new and innovative zoning classification that permits greater flexibility of land planning and site design than conventional zoning districts. Oakbrook is the direct result of the combination of landscape architectural/engineering skills and concepts, and county government involvement.

Oakbrook was designed from the ground up to completely encompass low impact development (LID) and Best Management Practices (BMPs) techniques that have been proven but never used in residential subdivision design in this area.

A large watershed to the north of the property presented a water management challenge. Large bioretention cells were designed to capture runoff at certain areas of the site. Additional cells were added to all cul-de-sacs and requirements set in place that involves the approved engineering and landscape design of rain gardens integrated with native plants on each lot. These lot requirements and bioretention cells will increase the aesthetics of the subdivision while serving as the first level of a functional water management system.

Community Benefits & Lessons Learned

Much of the success of this project will rely on how to successfully involve each resident of the development and to educate them on how their personal property affects the whole area. Once the general public becomes a little more “aware” of how small parts can affect the whole picture, there may be a visible improvement in future drought/flooding issues. By bringing this type of design to the homeowner and their immediate surroundings, the first step in the educational process is being taken.

Funding Sources and Partnerships

The following provided valuable resources to this project: Larry Coffman-LNSB, LLLC-Stormwater Services-Bowie, MO; City of Kansas City 10,000 Rain Gardens campaign; MARC BMP campaign; Prairie & Wetland Center-Belton, MO; Missouri Dept. of Agriculture-Grow Native campaign; Missouri Dept. of Conservation.

Contact

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Knowing what is on the property prior to development is critical when designing an environmentally friendly development.



In low impact development everything ties together to impact stormwater management practices.



Rain gardens are lot requirements for on-site stormwater management.