

## JCPS Echo Trail Middle School Project Information and Environmental Considerations:

### Stormwater

- Storm water run-off will be contained in a detention basin
- Construction sediment will be contained

### Floodplain

- No development or structures in the Floodplain of Long Run Creek
- No downstream impacts
- MSD will review on behalf of the Kentucky Division of Water

### Water Quality

- The project will meet or exceed MSD's Water Quality requirements
- Stormwater runoff from parking lot will be filtered

### Vegetation

- The building and parking lots were specifically designed and placed in the open and level agricultural areas of the property to minimize the removal of trees

### Ecological

- The impact on Ephemeral Streams and Wetland will be less than the lowest threshold for required mitigation

### Energy Use

- A geothermal system will be used for heating & cooling
- LED lighting will be used throughout the building
- The exterior walls will be Insulated Concrete Form (ICF) for high R-value & continuous air barrier
- The classrooms are oriented with an energy efficient east-west axis

### More Detail:

Stormwater: The plan will adhere to all of MSD's Stormwater and Erosion control requirements by detaining all storm water run-off in a detention basin on the property that will be designed to handle 2, 10, 25, & 100 year storm events. We will contain all construction sediment on site using MSD's Erosion Control requirements while using a combination of sediment basins, skimmers, silt fences, ditch checks, and clean water diversion berms. These devices will prevent sediment laden water from reaching Ephemeral Streams or leaving the site.

Floodplain: The project does not propose any development or structures in the Floodplain of Long Run Creek and any potential for downstream impacts will be handled by the proposed Stormwater Detention Basin. MSD is responsible for reviewing the site on behalf of the Kentucky Division of Water to make sure this and any development in Jefferson County does not propose any negative impacts to the Floodplain or any violations to the Local Floodplain Ordinance.

Water Quality: This development, as all the developments over one acre in Jefferson County, need to treat the "First Flush" of Stormwater Runoff from Impervious Surfaces which contains the oils and heavy metals through a water filtration device either biological, vegetative or mechanical. This project will meet or exceed MSD's Water Quality requirements and we will most likely use a device called a Stormceptor Filtering System to filter the stormwater before it leaves the parking lots. This device allows for easy routine maintenance.

Vegetation: The building footprints and parking lots were specifically designed and placed in the open and level agricultural areas of the property to minimize the removal of Woody Plants and Trees; while there will be a need for some tree removal this project will cause only a slight impact on the existing Tree Canopy.

Ecological: This project has several Ephemeral Streams and one Wetland area which lay mostly in the Wooded portions of the site. We will need to cross some of these areas to gain access to the project site. We are considering a submission to Army Corps of Engineers for a "Nationwide" permit even though the proposed impacts won't meet their lowest threshold for mitigation.

Overall the Middle School's design team has taken every step possible, especially at these early stages of planning, to make sure this project is set up to reduce or mitigate any impacts on our local environment.