

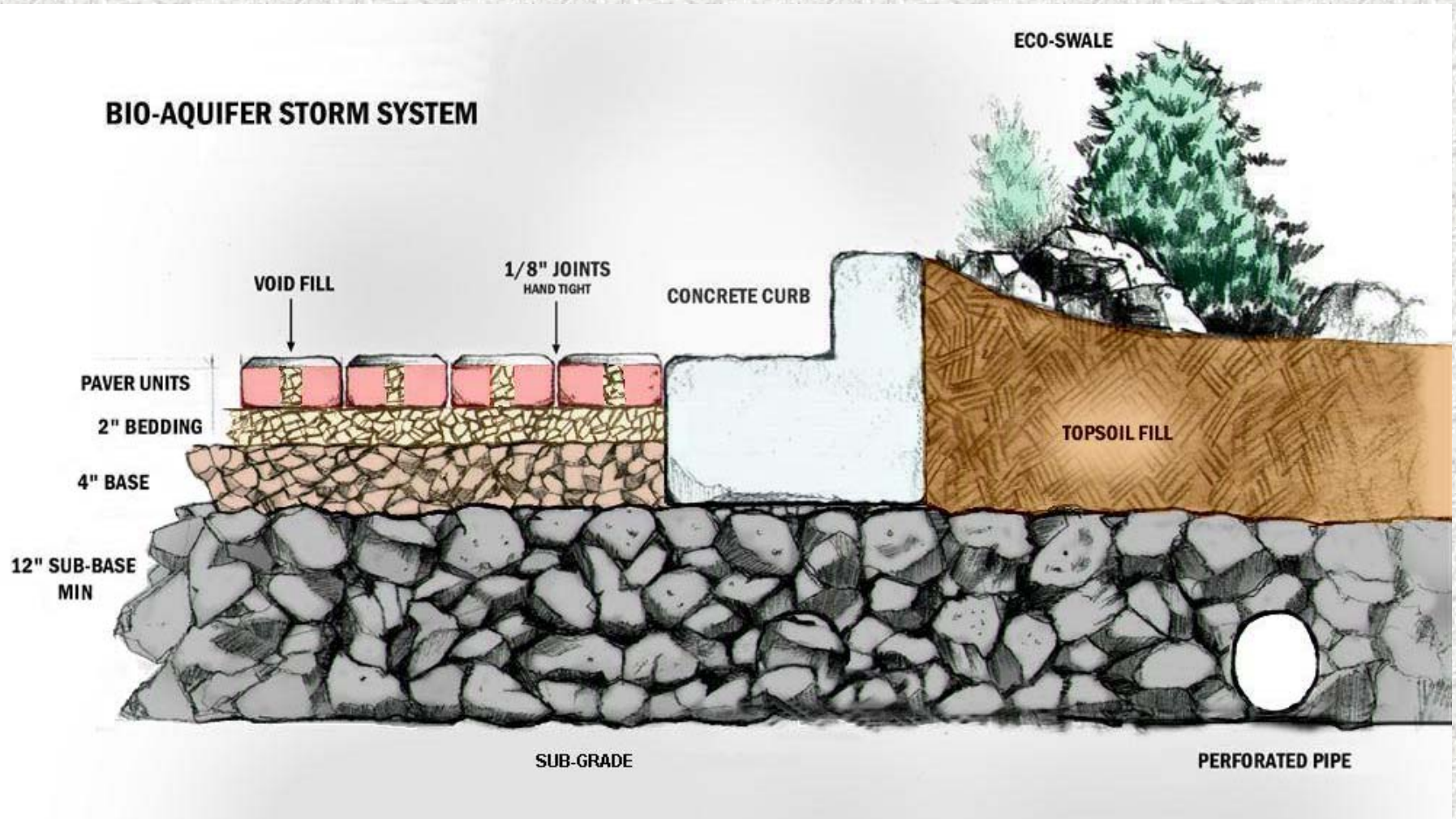
# Warrenville Road Reconstruction

## Permeable Concrete Brick Pavers

### Scope of Project

- Approximately one mile stretch of residential roadway reconstructed from a rural cross section to an urban cross section
- Project construction in three phases over a three year period
- Phase one - 1600 linear feet, completed in 2007
- Phase two - 1300 linear feet, under construction in 2008
- Phase three - 2000 linear feet, to be constructed in 2009
- Estimated total project cost - \$4,700,000.00
- Warrenville road is considered a community collector street

# Cross Section – Permeable Surface



# Storm Sewer Pipe

Note: Perforations for Water to Infiltrate to Drain Stone Sub Base



# Storm Sewer Installation



# Excavation and Stone Base



# Benefits of Permeable Brick System

- Reduced or elimination of Storm Water run off from pavement surface
- Filtration of rain water prior to entering sub drain storm sewer
- Storm water detention
- Road Surface is not susceptible to the freeze thaw cycle of winter
- No ponding of water on the surface
- Traffic Calming
- Charm and Character
- Acceptance by older generation (long time) residents

# Cost Comparison

## Asphalt Versus Permeable Bricks

- Not a black and white answer as the costs can vary significantly from project to project
- Warrenville Road retrofit (urban to rural) was designed with a storm sewer sized to accommodate a 10 year average rainfall event
- Warrenville Road was constructed with a structural number of 3.7
- 15% increase of a project comparison
- 60% increase on a surface to surface comparison

# 1/8" Gaps Between Bricks



# Warrenville Road Before Improvements



# Warrenville Road Before Improvements



# Warrenville Road Completed (Phase One Section)

