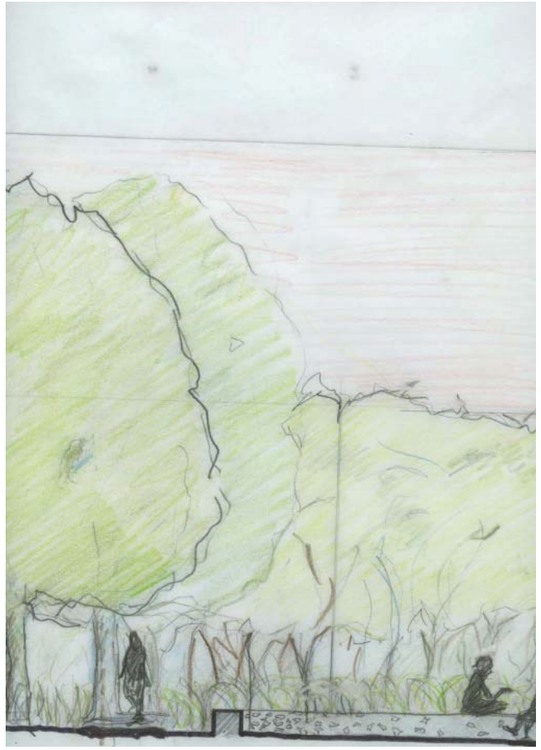
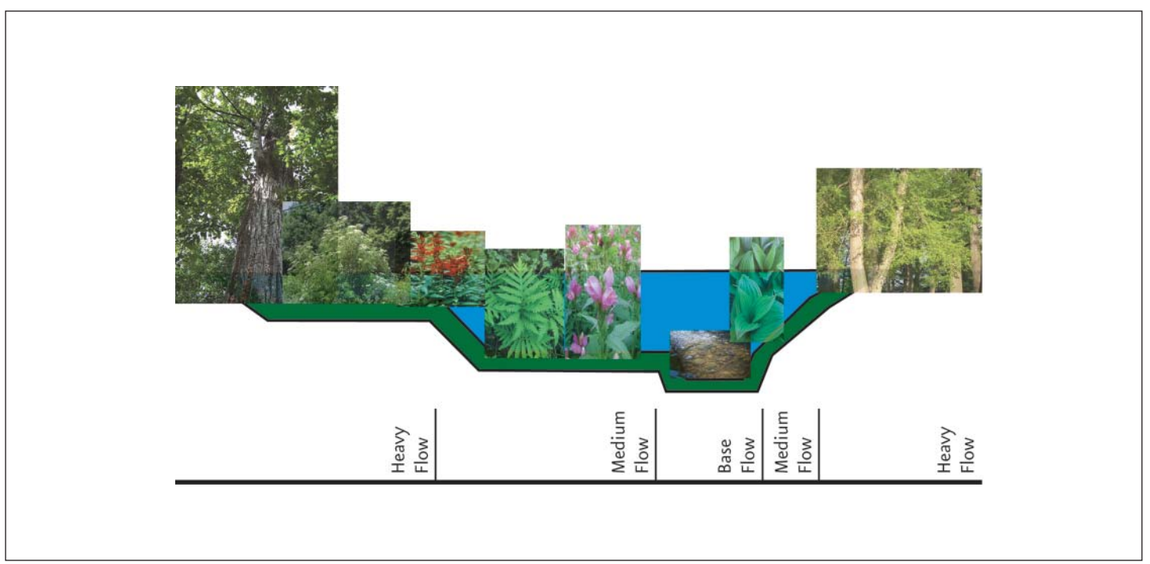
AMHERST REGIONAL HIGH SCHOOL

AMHERST, MA

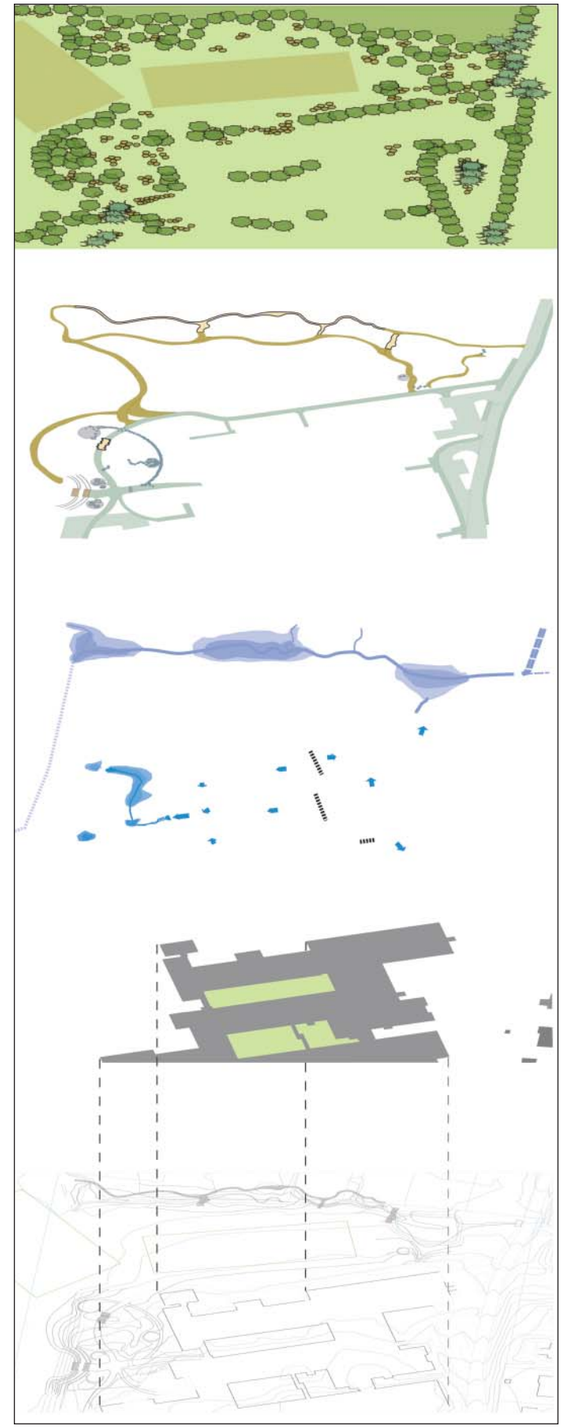
The design for Amherst Regional High School recommends stream restoration, daylighting and innovative stormwater management to support the high school environmental sciences curricula, to improve water quality and to create habitat. These steps are part of an overall vision for the urbanized Tan Brook Watershed in Amherst, MA to become a resilient ecosystem which can sustain ecological, economic and social systems, while serving as a model for other communities to improve their watersheds function. Research and assessment maps have already been used by the town of Amherst, UMass Amherst and Amherst Regional High School to apply for grants to study the Tan Brook Watershed in depth.



POETRY WALK SECTION /ELEVATION DETAIL



CHANNEL DIMENSION SECTION



VEGETATION SYSTEM
The proposed vegetation strategy eliminates invasive plant species and uses native vegetation and plant communities to provide visual references to place and provides connections to the broader ecological context of the site. Using the Watershed gradient model as inspiration, plant community typologies of red maple swamp, emergent wetland and flood plain help to illustrate on a micro scale the experience of traveling through the Tan Brook Watershed and define eco-region according to plant communities.

CIRCULATION SYSTEM
The proposed circulation system provides a clear system for pedestrians and vehicles to move through the site at varying scales of speed and numbers. It links active, passive and learning uses as a comprehensive network. Following the paths of the proposed system, the traveler might experience a lacrosse game, an emergent wetland, a reflective gathering place or a vehicle corridor that can be cordoned off for street parties and gathering at lunch.

HYDROLOGIC SYSTEM
The proposed system creates opportunities for infiltration, interception and storage in ways that pre-development hydrological processes handle flux in water volumes.

BUILDINGS
The existing footprint of the high school.

CONTOURS
The proposed site grading plan.

High School Vision

The Landscape of Amherst Regional High School is a resilient, self sustaining landscape and supports the curriculum of the high school through design of the Tan Brook stream restoration and surrounding landscape.

The High school site is a metaphor for the Tan Brook watershed. Its challenges reflect those in its larger context. Currently, its systems are impaired by an abundance of impervious surfaces, a channelized and culverted stream and lack of definition of spaces outside of the building. It has great potential to be a pilot site for the revitalization of the watershed. Its proximity to the high school, elementary, and junior high schools as well as Amherst College and UMass make it an ideal place to implement and research strategies like stream restoration, water harvesting, and use of bioswales and rain gardens.

This master plan creates a resilient ecosystem that can handle fluxes in people, nutrients and weather. It restores some of the dynamic function of water storage using a combination of man and nature inspired design. Importantly, it is a resource for the community to learn from, be inspired by and to enjoy. Perhaps it may even inspire other communities looking to improve their watersheds.

0 15' 30' 60' 90'

CHRISTOPHER TODD LYNCH | MALD, MLA