A Community Revitalization & Ecological Regeneration Catalyst

1. Site Plan: Overlaid with layers of vegetation, habitats, paths, open spaces, industrial relics, educational areas, and historical references, the designed space enables multiple possibilities, including functioning as a connection between Riverside, Greater Hazelwood, Almono, and Greater Pittsburgh.

Monongahela River

1. Central Gathering Area
2. Vernal Pool Ecosystem
3. Overlook to Vernal Pools
4. Existing Wooded Area / Railroad Path
5. River Access via Under bridge Landform
6. Railroad Bridge & Rainwater Display
7. Small & Non-motorized Boat Dock
8. Boat Launch Parking
9. Phytoremediation Tree Plot (research area) Almono Entrance
10. Phytoremediation Plot (rhizofiltration research)
11. Tecumseh St. Park Entrance
12. Existing Electrical Station
13. Visitor Parking Lot & Drop off
14. Railroad Car Green Houses
15. Courtland St. Park Entrance
16. River Trail to Nine Mile Run Trail
17. River Trail to Connect to Existing Trail
2. **Design Process**: Illustrated above is the design process from which the following work was derived. The large presence of the community is exhibited in the co-authorship of the site design.

- **Community Goals**
  - Seating Areas (Benches)
  - ADA Access
  - Playground (safe site for kids)
  - Vegetation Display
  - Open Fields
  - Park Hours (not 24/7)
  - Parking Lot
  - Greenhouse
  - Seasonality
  - Wildlife Education
  - Education on a Skill for Youth
  - Place to Ice Skate
  - Community Garden to Produce & Sell
  - Lighting (safety)
  - Visibility in Park
  - River Access
  - Use of Recycled Materials
  - Relaxation Areas
  - Park for All Ages
  - "Just Let it Go" Natural Landscape Character
  - "State of the Art" Technologies
  - Skate Park (stormwater display)
  - BMX Park
  - Food Forest
  - Nature Center
  - Buffer Sound of Trains
  - Buffer Electrical and Other Maintenance Areas
  - Boating (Kayak & Canoes)
  - Fishing
  - Pavilion/Stage
  - Event Space
  - Walking & Bike Trails
  - Lengthen Existing River Trail
  - Access for Emergency Vehicles

- **Research**
  - Remediation of Soils
  - Increase Biodiversity
  - Ecological Connectivity
  - Hazelwood Culture & History Display
  - Connectivity not just to Riverside/Hazelwood but Pittsburgh as a whole
  - Honor Riverside's outstanding citizen, Sam Stratti
  - Site Operations that Benefit Local Economy
  - Provide Adequate Space for Festivals/Events

- **Found Goals**

- **Crossroads Park**

- **Outcome**
  - Create a space that allows for various recreational opportunities
  - Provide Ecological Function and Education
  - Present and Display the Uniqueness of the Adjacent Community
  - Act as a Gateway that Connects the Community to Various Entities

**Design Process Diagram**

- Introduction to Project Sites **w/** Stakeholders, Community Members & Penn State Center representatives
- Riverside Tour **w/** Sam Stratti
- Design Charrette **w/** Community
- Open House Presentation **w/** Interested Community Members & Stakeholders
3. **Aerial Perspective:** This perspective depicts the conceptual design of Crossroads Park and its relationship to the neighborhood of Riverside and the Monongahela River.
4. **Site (Designed) Sections:** The constructed landform of the park allows for river access as well as habitat creation and spatial divides.
5. **Program Elements (Central Gathering Area)**: The central gathering area provides seasonal qualities that promote the interaction of park users and allow for various recreational activities, event space, and historical education by means of a cor-ten wall engraved with Hazelwood historic events.
6. Site Dynamics (Community Member Representation): Particularly recognized in the design is the contribution of one Riverside citizen, Sam Stratti. The rail car gardens/greenhouses will serve to educate the community’s youth, provide produce to the organic supermarket (for profit), and act as a theater to honor Sam.
7. Program Elements (Vernal Pools Construction):

To allow for water to pool and stay on the surface a bentonite soil mixture (high clay content) is used instead of a geotextile liner to slow the infiltration rate of water captured in the vernal pool landforms.
8. Program Elements (Vernal Pools): The above perspective presents the vernal pools, which allow for a full life cycle of woodland and scrub-shrub based amphibians, in the fall season to show that the landscape can be aesthetically pleasing in the absence of water.
The site is located adjacent to a point bar on the Monongahela River, which allows for the opportunity to collect naturally occurring sediment deposits as a means of re-establishing the river bank and for the creation of aquatic ecosystems.
10. Program Elements (River Access): The proposed “under bridge” landform allows for such functions as connections to proposed river trails, a boat launch, a look-out, and a connection to the proposed dock.
11. Program Elements (Railroad Bridge): The proposed bridge allows for continued rail line operation and a view of the trains. The “skeleton” construction maximizes passage of light for safety. A gravity-based, rainwater-collection system produces “artificial rain” that provides a unique display and supports plant life.
12. Program Elements (Railroad Bridge): The dimensions/construction of the bridge allow for more light to enter through/under the structure. This was done to create more visibility and provide better safety. Light wells have also been incorporated into the structure of the design to accommodate the needs of the plant life located on the landform underneath the bridge.
13. Program Elements (Railroad Bridge): As a means to provide water to the plant life on the landform underneath the bridge, a rainwater collection system has been designed and attached underneath the bridge’s structure. The gravity-based system allows for “artificial rain” that irrigates the plants and provides a unique display of rainwater design for park users to experience.
14. Program Elements (River Access): Shown above is a perspective view that presents the experience to be had by park users underneath the bridge.