

CONSTANTS

Each scenario was required to accommodate several policies, "constants" which were generally agreed to be necessary in all alternatives.

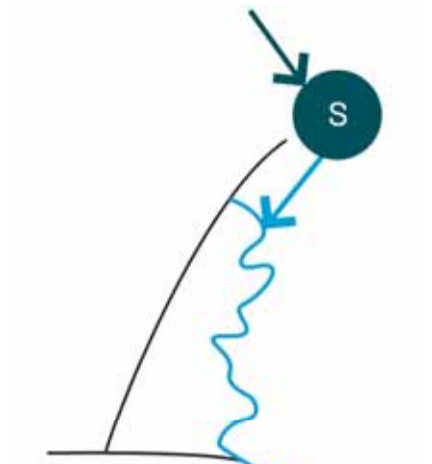
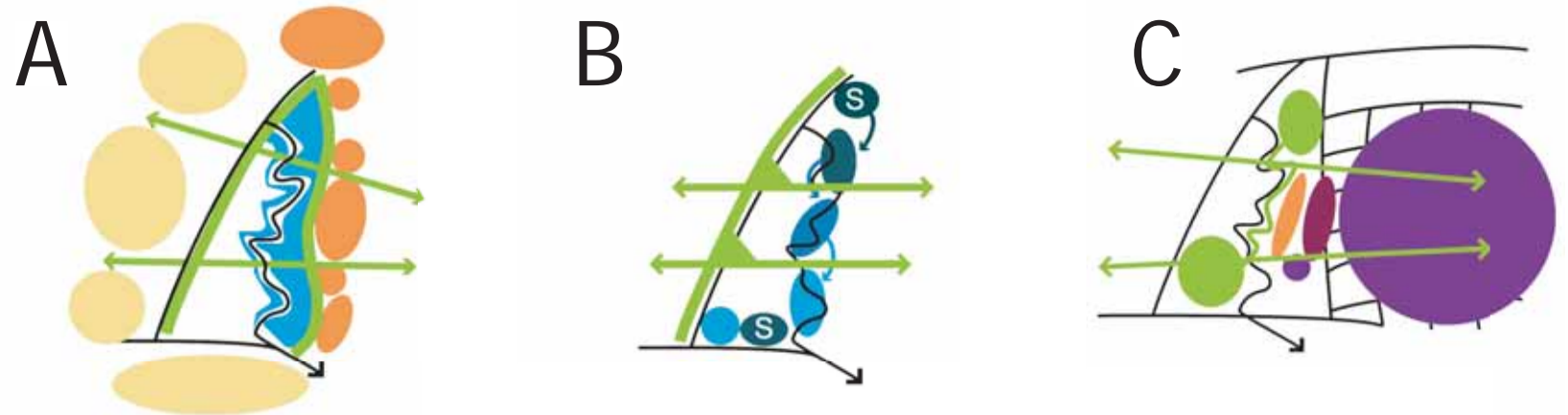
- 1- Wastewater from the northern Padova neighborhood must be cleaned. Each team must designate a location for a new sewage treatment plant.
- 2- Flood storage within the Roncagette Park area must equal or exceed the present volume of water that can be contained within the levees along Roncagette Canal.
- 3- Five (5) historic houses within the area must be preserved. This includes La Scacchieria agriturismo site.
- 4- A minimum of two working tracks of the railroad must be preserved within the current railyard area.
- 5- ZIP's industrial development: each scenario must account for 2 million m² of new development for ZIP and other constituents. The industrial areas of ZIP must be retrofitted in some way to become more "green and sustainable" based on SIAM, the Sustainable Industry Area Model.
- 6- The Roncagette Park area must become part of a link to a north-south regional green corridor, connecting the Brenta River and Roncagette Canal. Views of agriculture and other green spaces must also be preserved and enhanced along highways and primary canals through Padova.

VARIABLES

There were also several important issues about which there was not general agreement. The design options for these "variables" were determined to be flexible, so that each scenario could use a different approach to address each issue. For example, while each scenario was required to include a new sewage treatment plant, there was no fixed location for it. In order to offer a broad variety of options, each scenario was assigned a unique set of variables, or assumptions, that would guide design work and guarantee diversity amongst the designs.

The issues for the variables included the following:

- 1- Improving water quality for stormwater and wastewater
- 2- Improving flood storage capacity
- 3- Improving vehicle access to the park
- 4- Maintaining, exchanging and expanding property: moving or altering the levees and railyard
- 5- New development: within current ZIP properties, within ZIP's proposed southern expansion, and within the park
- 6- Connections to existing and proposed transportation infrastructure

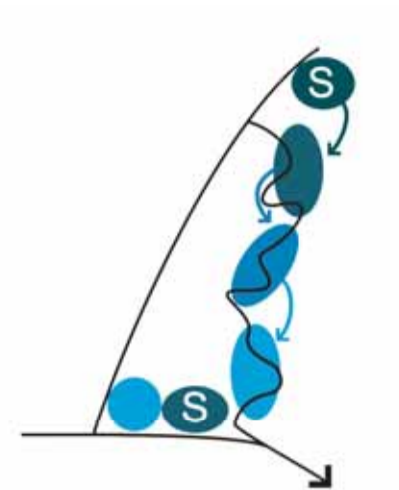


all scenarios must include a sewage treatment plant

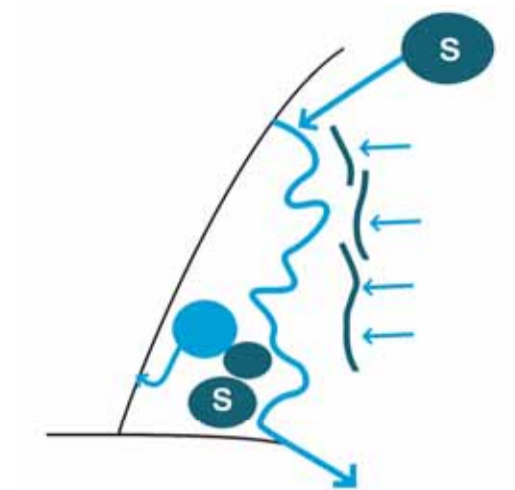
water quality



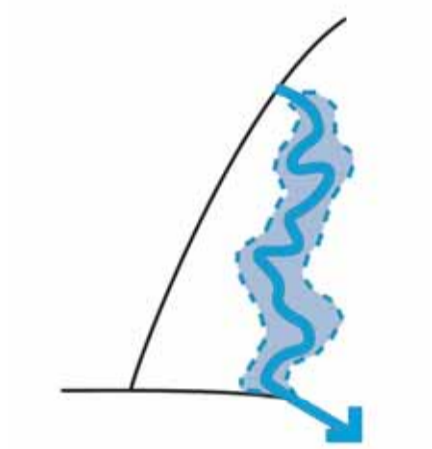
Sewage treatment plant north of ZIP
Stormwater wetlands along Roncagette
Expansion of existing sewage treatment plant



Subterranean sewage treatment plant in northern park
Tertiary wastewater treatment in polishing wetlands
Water is cleaned to level suitable for recreational use

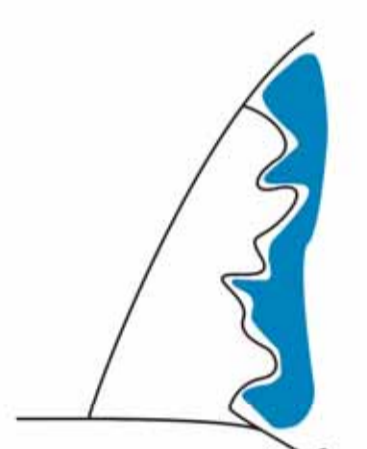


Sewage treatment plant in north ZIP: Existing sewage plant has polishing wetland that provides clean lake water
ZIP stormwater treatment in wetlands and bioswales



all scenarios must provide flood storage equivalent to or better than today's

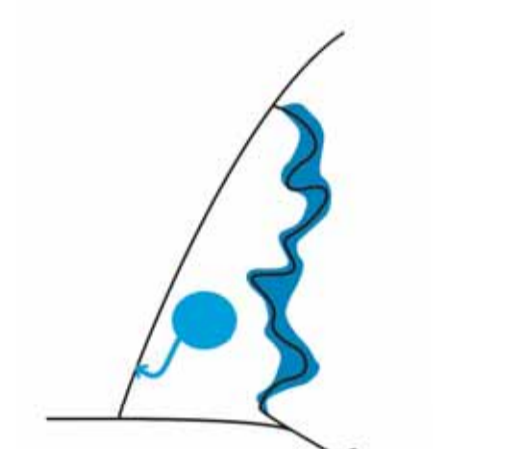
FLOOD STORAGE



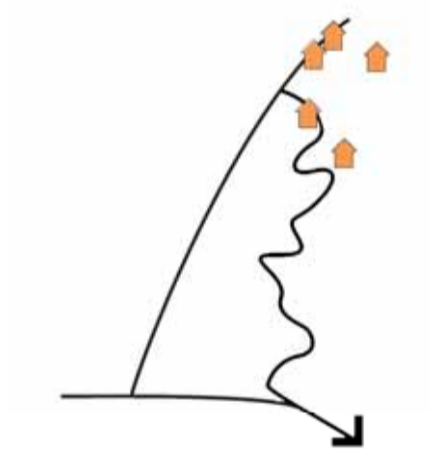
Expanded flood storage in eastern lake



Flood storage in sequence of detention ponds
Forested zone for overflow flooding



Existing capacity of Roncagette Canal is maintained
New lake provides overflow flood storage

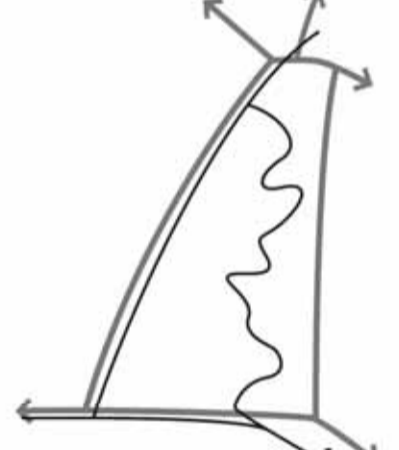


historic buildings must be preserved

road access



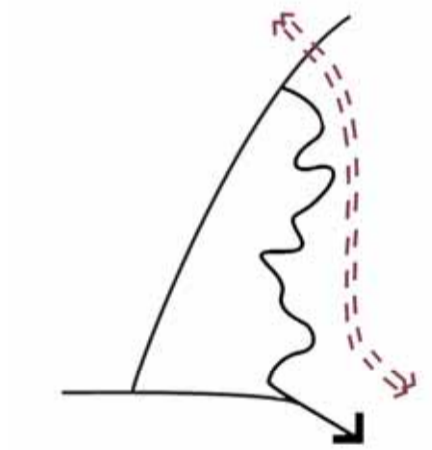
Ring within park
Two east-west roads: bridge to Ponte San Nicolo
North-south road with bridge to north ZIP



Ring road around park with multiple park access points
New bridge to north ZIP

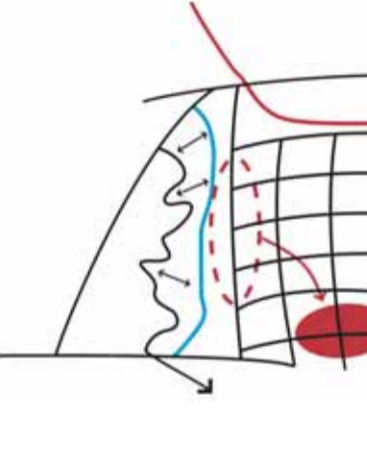


Two east-west roads
North-south road uses railroad right-of-way
Secondary north-south road on west side of park

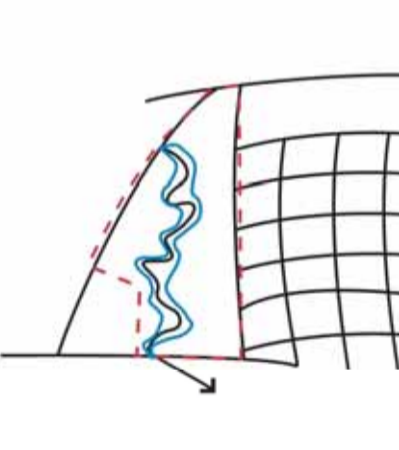


two rail tracks must be maintained

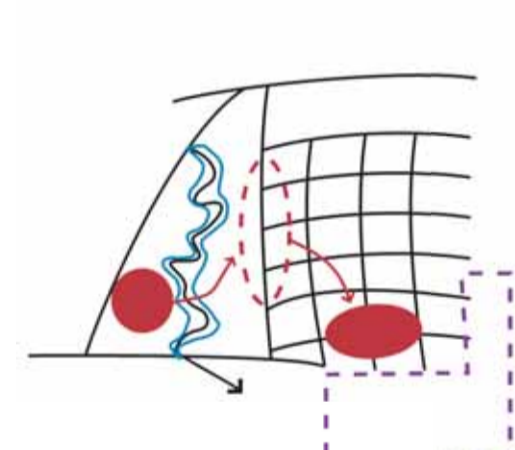
property boundaries & major land uses



Levees moved to create wetland and lake
Railyard moved
Primary rail lines shifted to east side of ZIP



Levees remain in current formation
Railyard remains and maintains current functions
Park development stays within ZIP boundaries



Levees remain in current formation
Railyard moved and expanded near new ZIP development
Land exchange between University, ZIP, and railroad

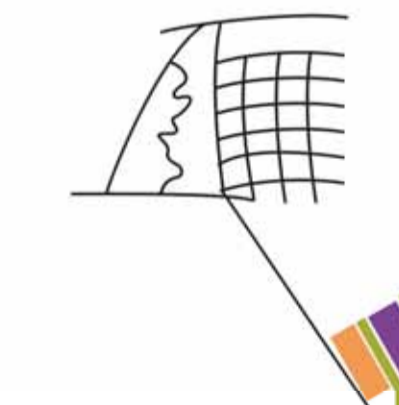


2 million m² of new development is required; current industry must become more sustainable

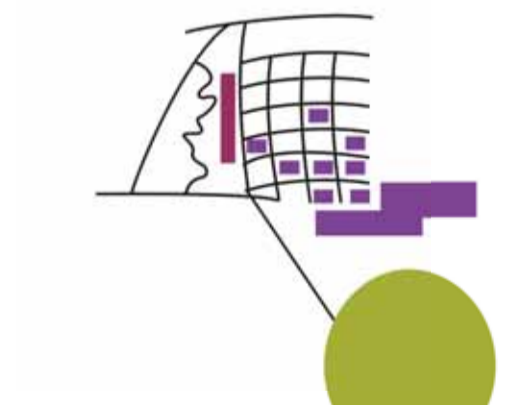
new development



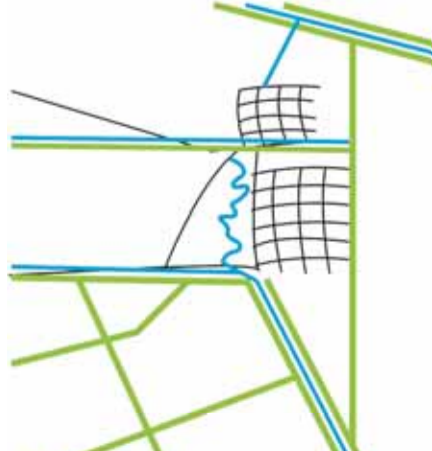
Infill development within ZIP
Partial ZIP southern expansion
University research in park



Full development in proposed southern expansion area
Green conservation corridors within southern expansion

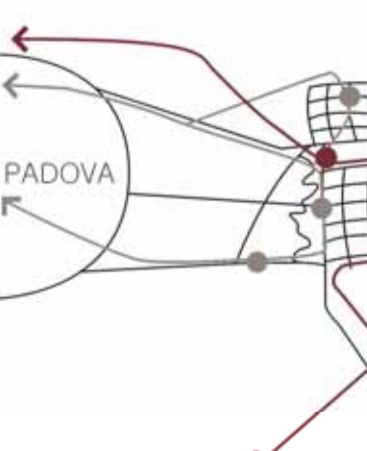


Infill development within ZIP: University adjacent to park
Industrial development adjacent to current ZIP properties
Conservation of existing conditions in southern towns

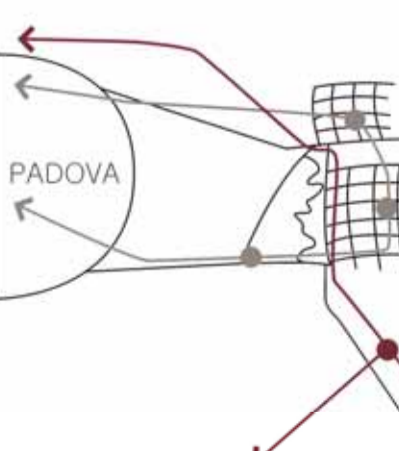


create green connections to Brenta & Roncagette canals and along mainways

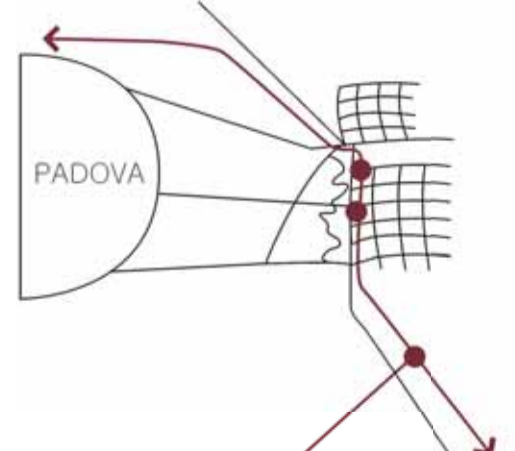
regional transportation



Railroad, tram and road networks expanded
Tram along park with multi-modal transit hub



Railroad, tram and road networks expanded
Tram stops through north and south ZIP



Train and Bus lines expanded
Multi-modal transit hubs