M1

1-foot sea level rise
B1+ 2050   A1FI+ 2050

sea level infiltration
Sea level will rise 1 foot above the 2000 level, at which point 3.5% of the 2000 peninsula footprint will be under water unless protective measures are taken.

order-of-magnitude 1
With sea level 12" higher than 2000 levels, M1 will approach the last point at which the peninsula will be largely as it is today.

issues
ASHLEY SHORELINE: Rising water will encroach on the upper west bank of the peninsula.
STORM EVENTS: Storms and hurricanes will become increasingly severe, dropping more water on the peninsula.

principles
Deter water encroachment due to sea level rise.
MARSHES: Expand breadth and depth of existing marsh frontage; increase marsh protection and nourisment.

Manage stormwater through parks & natural systems.
STORM SEWERS: Expand and improve City's storm infrastructure to deal with increased stormwater and higher tidal flows.
MARSH RENTION: Expand marsh capacity to manage and filter runoff.
PARK RETENTION: Expand stormwater retention capacity through water-parks (after Colonial Lake) and greenspace. Stormwater is held until after the storm, then naturally filtered and drained.

Manage stormwater through pervious pavement & pedestrian malls.
PAVEMENTS: Transform all City streets and parking lots into dual-acting retention tanks through pervious/storage pavements.
MALLS: Convert heavy pedestrian areas, such as the Market, to pedestrian-only malls with pervious/storage pavements.
PARKING DECKS: All parking decks should have green roofs with retention capacity.

M1 peninsula plan
Stormwater and sea level encroachment are managed mostly through natural systems.

cross-town 2007
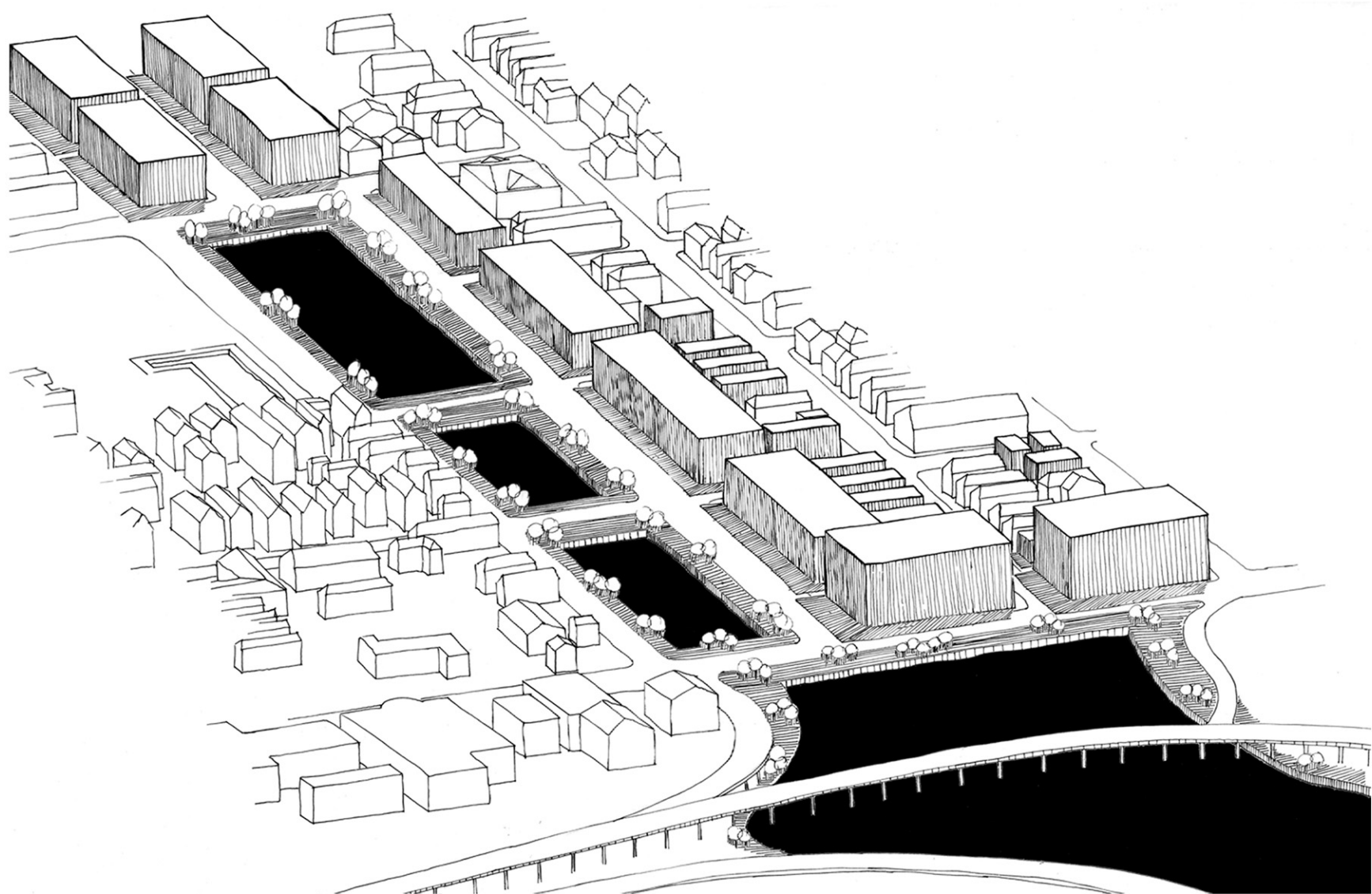Highway 17 @ Interstate 26 as it was in 2007.

cross-town CCDC proposal
The Charleston Civic Design Center's proposal for the legacy of the Cooper River Bridge lands.
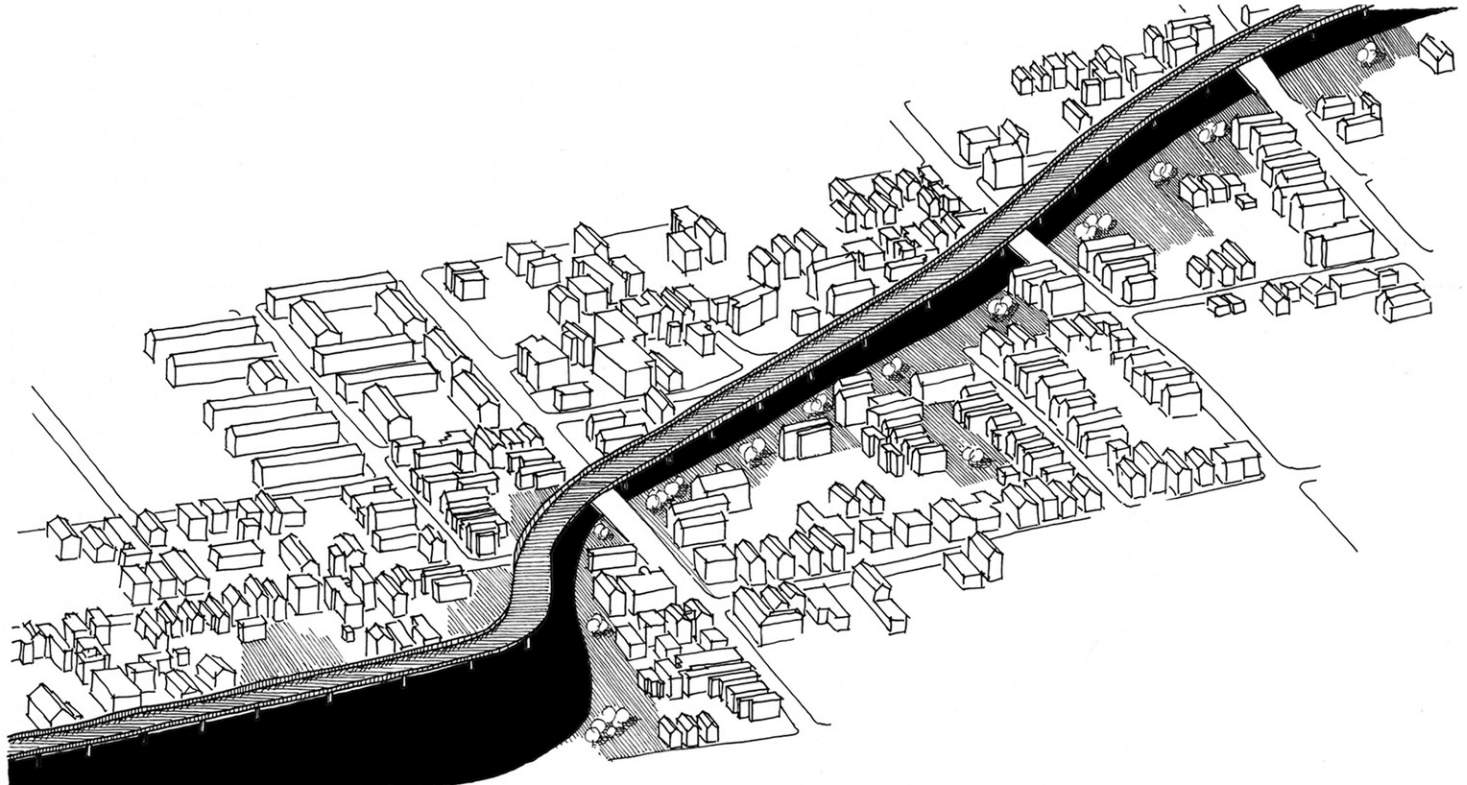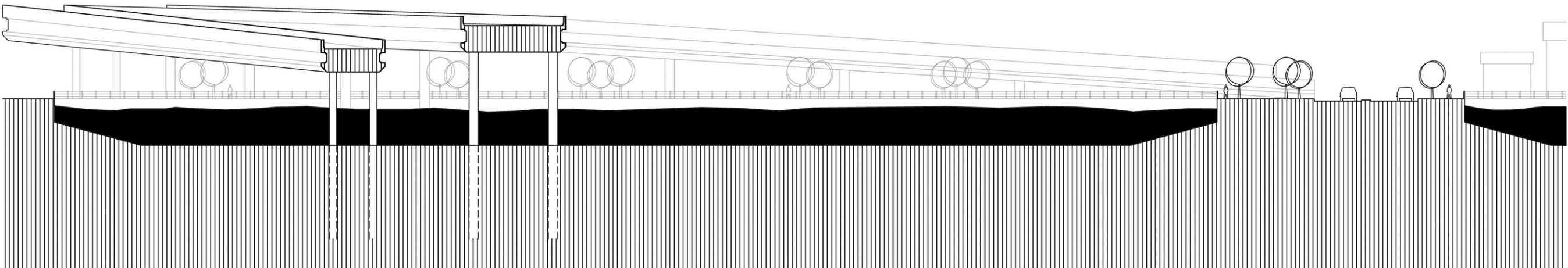

cross-town: retention park

cross-town: retention park
Modify CCDC proposal to include a water retention park; utilize under-freeway areas for expanded water retention park.

cross-town: elevated roadway

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The area of the cross-town is the largest available swath of land on the peninsula that can be utilized for retention and drainage.
The only way to make full use of this vital resource is to raise the Cross-town and make a waterpark below.