

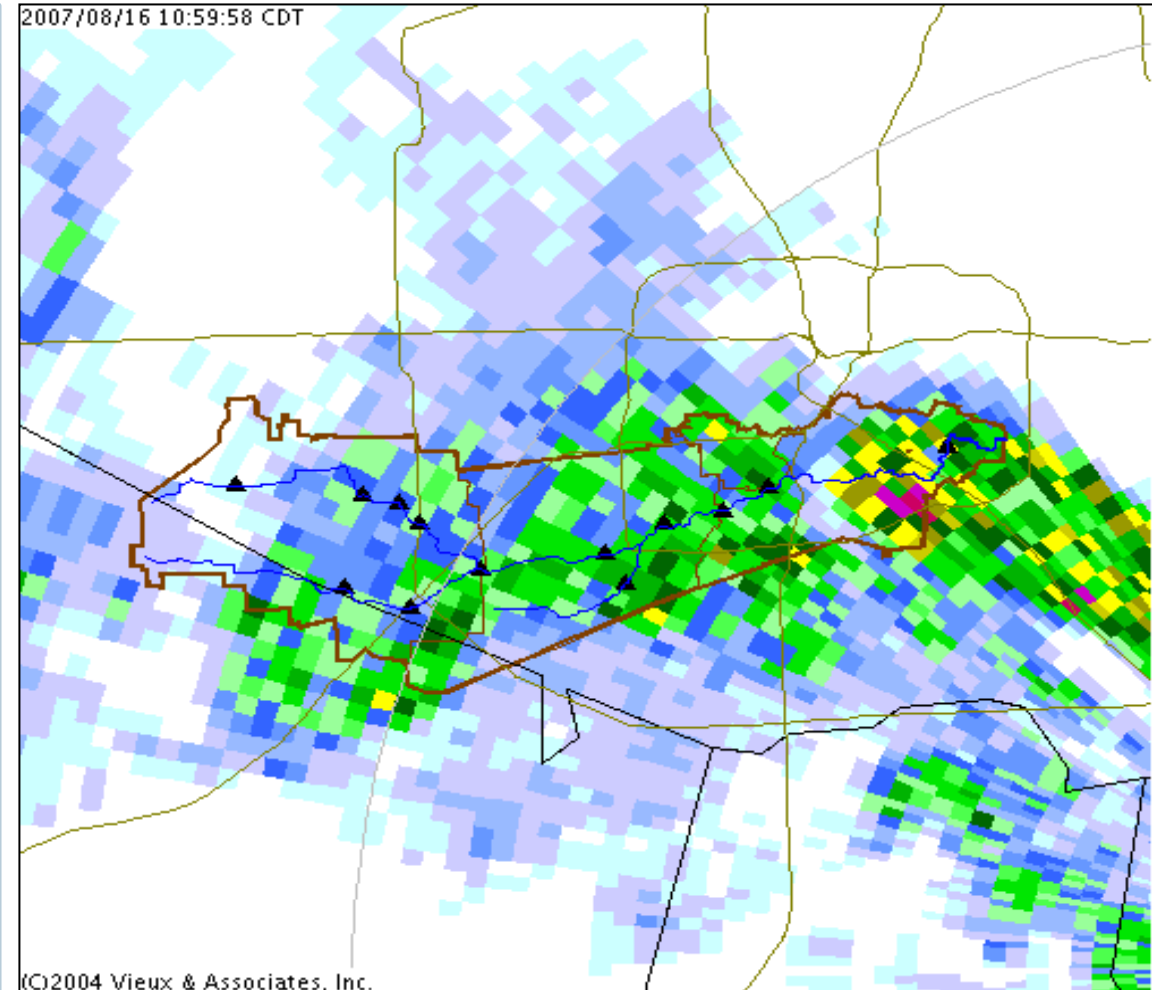
Risk and Flooding In Houston

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Technology for Flood Prediction and Warning

- Radar Rainfall – NEXRAD
- Atlas 14 NOAA in 2018
- GIS and LiDAR data
- Advanced hydrologic flood and surge models
- Web-delivery and Google Map Technology
- Dynamic floodplain models - unsteady state



Hurricane Harvey Flood Damages

Set records for rainfall and flooding
Massive flooding of infrastructure
Over \$125 billion in damages
Over 200,000 homes damaged
100,000 people rescued



Image Source: Houston Chronicle

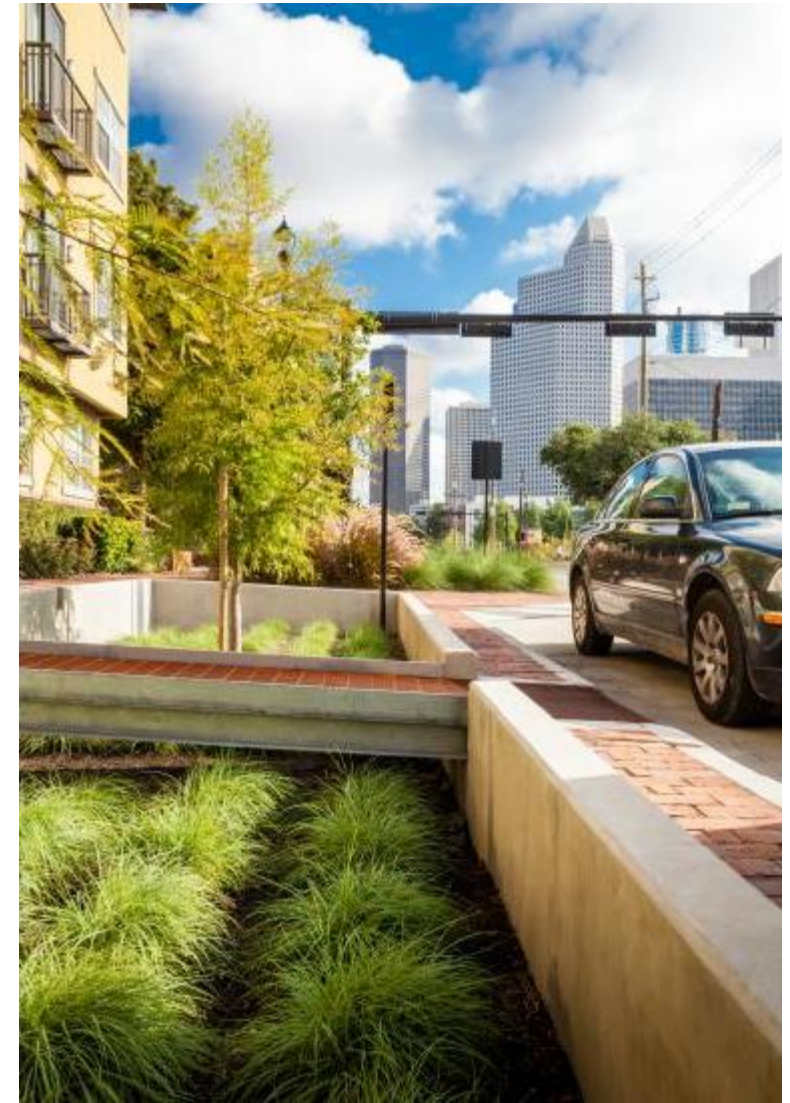
Brays open channel and bridge



Low Impact Development



<http://www.designworkshop.com/projects/bagby.html>



<http://www.walterpmoore.com/projects/bagby-street-reconstruction>



Sugar Land Style

Buffalo Bayou



Climate Change for Future Generations

- Rising temperatures
- Rising sea levels
- Changing jet stream
- Unsustainable water supplies
- Increased frequency and intensity of extreme weather events
- Loss of shoreline