# Heritage Park Flood Control Facility







## Des Plaines River Flooding



- 1986 Flood
  - \$35 Million Estimated Damages
  - 10,000 Homes Flooded
  - 263 Businesses Flooded
- 1987 Flood
  - \$78 Million Estimated Damages
  - O'Hare Airport Closure





#### Levee 37

- Combination Levee / Floodwall
- Apx 8,500 Feet Long
- Swing Gate Closure Structure
- Protects Prospect Heights & Mt. Prospect
- Essentially Complete in 2010
- 600 Foot Long Gap in Place until Compensatory Storage is Provided

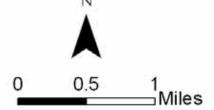






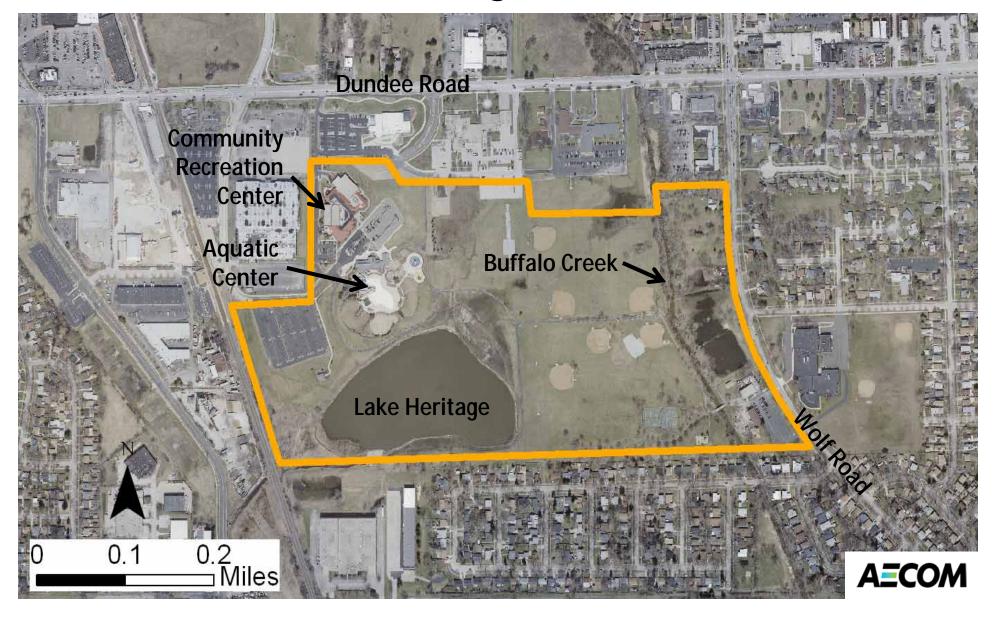
# Levee 37 and Heritage Park







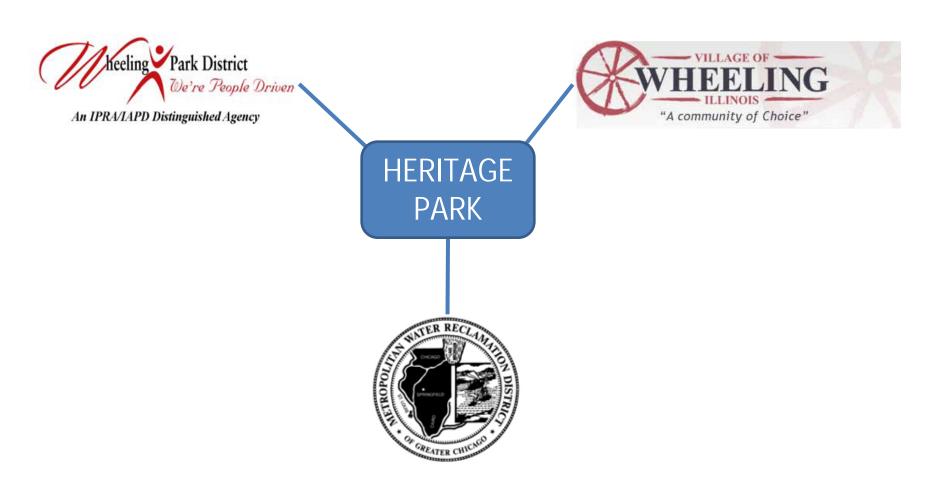
# Heritage Park



# Heritage Park Master Plan



## Heritage Park Partners





#### Stakeholders









An IPRA/IAPD Distinguished Agency











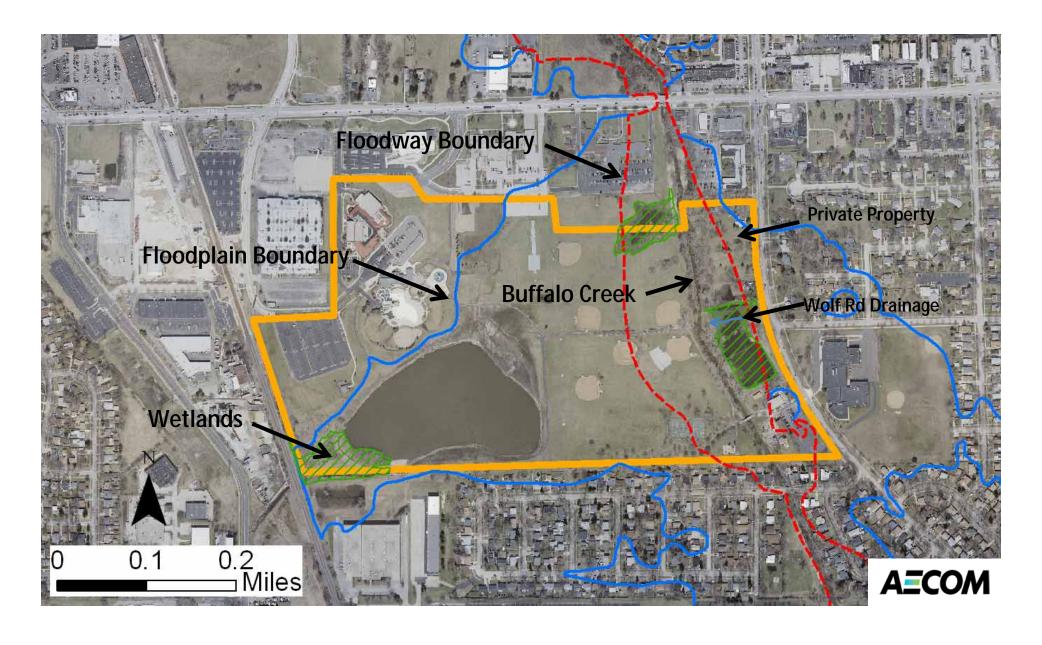








### Site Constraints

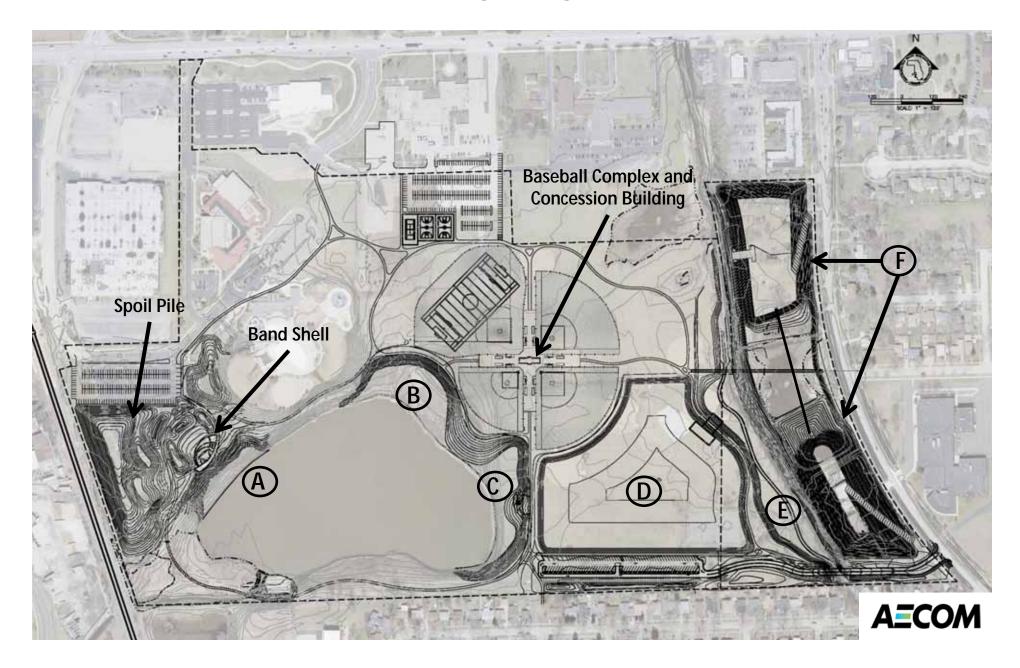


## Plan Summary

- 197 Acre Feet of Storage
- 6 Major Detention Basins
- One Major Pump Station
- Buffalo Creek Expansion and Restoration
- On Site Spoil Area
- Band Shell and Pavilion
- Baseball Complex w/ Concession Building
- Paths, Parking and Bridges
- Sitewide Landscaping

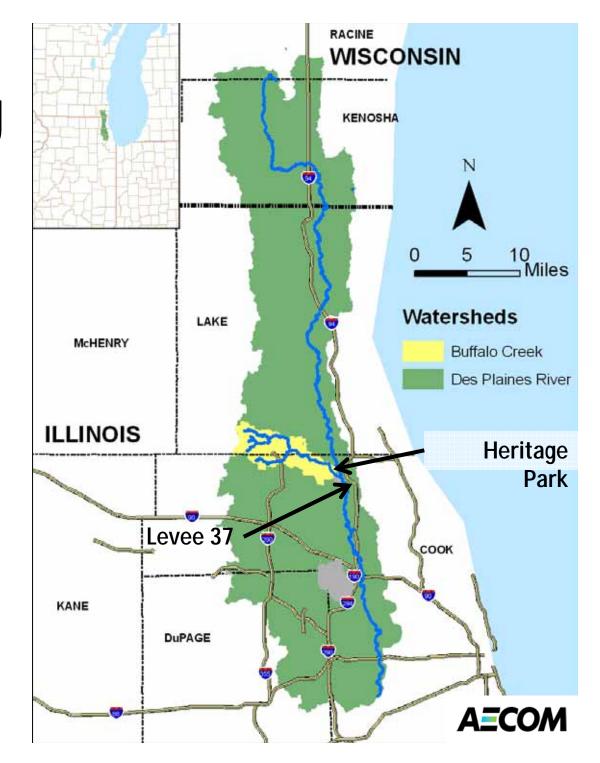


### The Plan

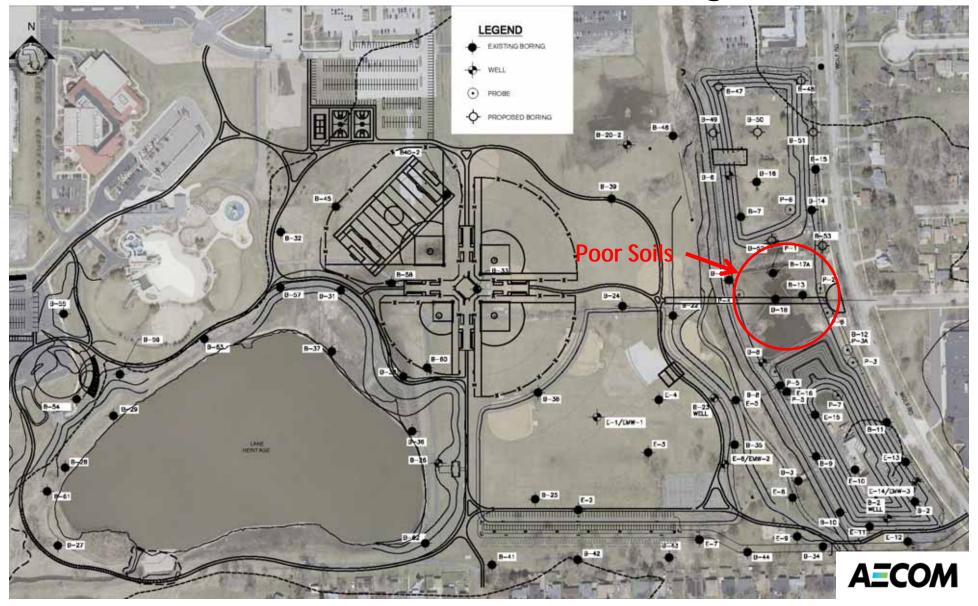


### **H&H Modeling**

- Des Plaines River
  - 630 Square Miles
  - 10 Day Critical Duration
  - HEC-1 / HEC-2
  - Steady State
- Buffalo Creek
  - 27.2 Square Miles
  - 24 Hour Critical Duration
  - HECHMS / HECRAS
  - Unsteady State
- Multiple Storm Events
- Basin Volume / Spillway Elevation Optimization

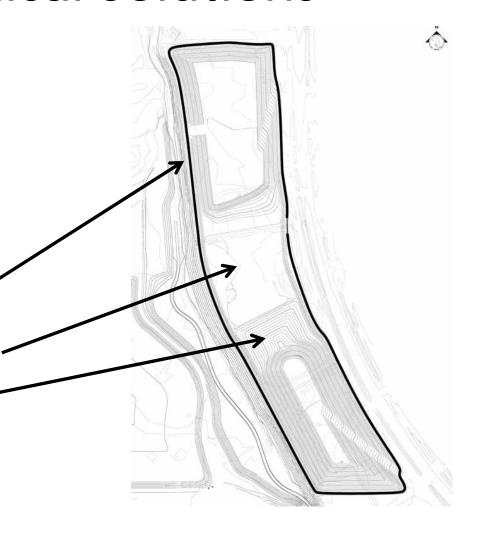


# Geotechnical Challenges



#### **Geotechnical Solutions**

- Avoid Poor Soils to Maximum Extent
- Flatten Side Slopes in areas of weak soils
- Basin D
  - Bottom Elevation Above Groundwater Level
  - Underdrain System
- Basin F
  - Cement Bentonite Groundwater
    Cutoff Wall
  - Leave Central Portion (weak soils) at Grade
  - 8:1 Slopes in some areas



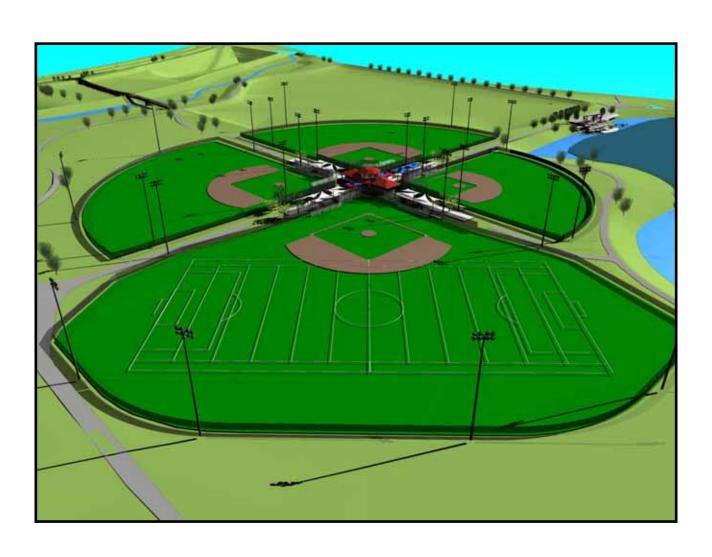


#### Recreational Features

- Baseball Complex w/ Concession Building
- Band Shell & Spoil Pile
- Pavilion
- Paths
- Parking, Roads and Bridges
- Lake Edge Restoration
- Buffalo Creek Restoration
- Park Landscaping

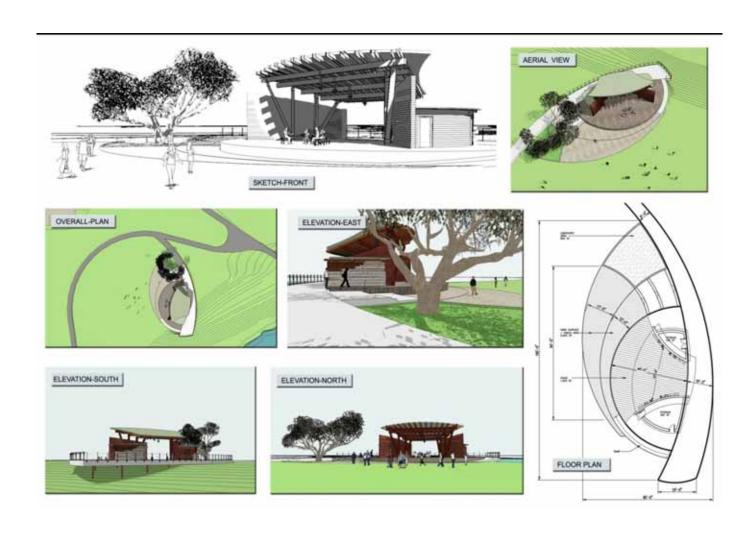


## Baseball Field w/ Concession Bldg



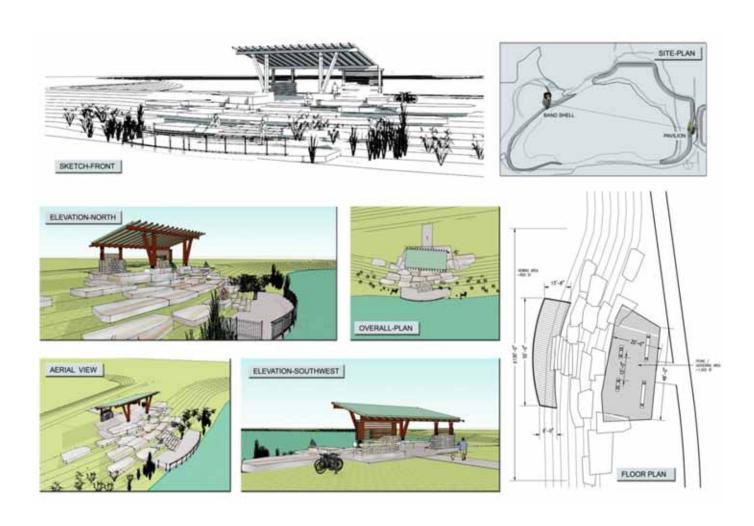


### **Band Shell**





### Pavilion





## Landscape Plan





## Keys to Success

- Vested Interest
- Understanding of Stakeholder Goals & Constraints
- Early Leadership Involvement
- Frequent Communications
- Flexibility



#### **Current Status**

- Preparing Plans and Specifications
- Expected Advertisement: Fall 2011
- Construction Period: ~2 years
- Construction Estimate: \$32 million



#### Questions?

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