West Water Run Restoration and Flood Protection
City of Grove City, OH

Association of State Floodplain Managers Conference
May 21, 2019

Presented by: Mike Boso, CFM, Chief Building Official
City of Grove City
Miles Hebert, PE, CFM
EMH&T
West Water Run Restoration and Flood Protection

• History of Area Flooding
• Redevelopment of the Beulah Park Racetrack
• Providing a Natural Amenity and Flood Protection
• Engineering and Permitting Challenges
• Grant Funding Opportunity
• What’s Next.....
Project Area Overview

Former Beulah Park Racetrack

West Water Run Watershed:
Approx. 2.0 Square Miles

Previous Regional Detention Basin
History of Area Flooding

Demorest Road Regional Detention Basin and City Park

Former Beulah Park Racetrack

West Water Run Floodplain Restudy and LOMR Published in 2013
History of Area Flooding

Residual Neighborhood Flooding Persists
History of Area Flooding

Residual Neighborhood Flooding Persists
History of Area Flooding

Residual Neighborhood Flooding Persists
Redevelopment of the Beulah Park Racetrack

Conceptual Redevelopment Rendering for Former Beulah Park Racetrack
Envisioned a Relocated Stream Channel

Former Beulah Park Racetrack
Relocated Stream Channel
Portion of West Water Run to be Abandoned
Beulah Subdivision
Providing a Natural Amenity and Flood Protection

Concept Plan Developed for Clean Ohio Conservation Fund Grant Application:

- Approx. 4,000 linear feet of stream channel restoration
- 125-ft. wide constructed floodplain
- 160-ft. wide riparian corridor
- 14 acre conservation easement
- Eliminate floodplain in Beulah Subdivision
Channel Relocation and Restoration has Flood Reduction Benefits:

• Removes 10 buildings from the 100-year floodplain
• Protects public streets from flooding
Existing Conditions: at the upstream limit of the project
Providing a Natural Amenity and Flood Protection

Existing Conditions:
moving downstream
Providing a Natural Amenity and Flood Protection

Existing Conditions:
moving downstream
Providing a Natural Amenity and Flood Protection
Providing a Natural Amenity and Flood Protection

Existing Conditions: at the downstream limit of the project
Engineering and Permitting Challenges

Grandstand

Horse Barns/Paddocks
Environmental Site Assessment

• Phase I and Limited Phase II – low level soil contamination

• Asbestos in buildings to be demolished - required remediation plan
Engineering and Permitting Challenges

- Restored Stream Channel in 160-ft wide riparian corridor
- Mass Fill to Reclaim Floodplain for Future Development
- Breaks in Conservation Easement for Future Roadways
- Greenway Trail/Bike path Connecting to Adjacent Neighborhoods and Existing Park
Engineering and Permitting Challenges

- Section 404 Nationwide Permit for stream restoration resulted in questions about the possible historical nature of buildings on the site; cleared through cultural resources investigation.
- Detailed flood hazard impact analysis determined No-Rise and a CLOMR was not required to construct the project.
- Undocumented utilities uncovered during construction.
Grant Funding Opportunity

*Racetrack Redevelopment Grant Funding:*
- Funding allocation by the Ohio Development Services Agency to be applied to the redevelopment of former racetrack properties
- Funding applies toward infrastructure improvements and site demolition/restoration

*Clean Ohio Conservation Fund Grant:*
- Funding allocation through the Ohio Public Works Commission (OPWC)
- Administered locally through NRAC District 17
## Grant Funding Opportunity

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Total Cost</th>
<th>Racetrack Redevelopment Grant Funding</th>
<th>Clean Ohio Conservation Grant Funding</th>
<th>City Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Demolition/Environmental Clearance</td>
<td>$730,000</td>
<td>$730,000</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Beulah Subdivision Channel Enclosure</td>
<td>$181,000</td>
<td>$181,000</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Greenway Trail</td>
<td>$170,000</td>
<td>$170,000</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Stream Restoration</td>
<td>$2.66M</td>
<td>$1.33M</td>
<td>$777,000</td>
<td>$547,000*</td>
</tr>
<tr>
<td><strong>TOTALS =</strong></td>
<td><strong>$3.73M</strong></td>
<td><strong>$2.41M</strong></td>
<td><strong>$777,000</strong></td>
<td><strong>$547,000</strong></td>
</tr>
</tbody>
</table>

*Includes valuation of land donated for conservation easement = $514,000
The New Channel
The New Channel
The New Channel
The New Channel
Letter of Map Revision
What’s Next........

### SITE DATA:

<table>
<thead>
<tr>
<th>Total Site Area</th>
<th>± 212.70 Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial Land</strong></td>
<td></td>
</tr>
<tr>
<td>Sub-Area</td>
<td>Total Area</td>
</tr>
<tr>
<td>'A'</td>
<td>± 14.32 Ac.</td>
</tr>
<tr>
<td>'B'</td>
<td>± 2.59 Ac.</td>
</tr>
<tr>
<td><strong>Gross Residential Land</strong></td>
<td>± 195.87 Acres</td>
</tr>
<tr>
<td>Sub-Area</td>
<td>Total Area</td>
</tr>
<tr>
<td>'C'</td>
<td>± 20.67 Ac.</td>
</tr>
<tr>
<td>'D'</td>
<td>± 17.35 Ac.</td>
</tr>
<tr>
<td>'E'</td>
<td>± 15.86 Ac.</td>
</tr>
<tr>
<td>'F'</td>
<td>± 20.71 Ac.</td>
</tr>
<tr>
<td>'G'</td>
<td>± 10.29 Ac.</td>
</tr>
<tr>
<td>'H'</td>
<td>± 24.08 Ac.</td>
</tr>
<tr>
<td><strong>Total Residential Units</strong></td>
<td>978 du</td>
</tr>
<tr>
<td><strong>Sub-Area</strong></td>
<td>'I'</td>
</tr>
<tr>
<td><strong>Total Open Space Shown</strong></td>
<td></td>
</tr>
<tr>
<td>- Community Park:</td>
<td>± 31.77 Acres</td>
</tr>
<tr>
<td>- Stream &amp; Buffer:</td>
<td>± 22.47 Acres</td>
</tr>
<tr>
<td>- Wooded Preserve:</td>
<td>± 4.30 Acres</td>
</tr>
<tr>
<td><strong>Open Space / Park PT</strong></td>
<td>± 58.54 Acres</td>
</tr>
</tbody>
</table>
West Water Run Restoration and Flood Protection
City of Grove City, OH

Association of State Floodplain Managers Conference
May 21, 2019

Presented by: Mike Boso, CFM, Chief Building Official
City of Grove City
Miles Hebert, PE, CFM
EMH&T
Frederic came, conquered, and left

Area suffers worst flooding since ’59

The Record
Serving Grove City and the Southwestern City School District
GROVE CITY, OHIO THURSDAY, SEPTEMBER 28, 1979

Frederic’s ferocity

The two days of Frederic’s fury over the Grove City Church grounds which was one of the few areas to escape flooding. Police were able to keep everyone away from the flooded streets. The flood waters rose to near the heights of some homes.

Mike’s First Major Flood Event 1979