

An aerial photograph of a suburban area. A river flows through the center, with several baseball fields and green spaces along its banks. Residential streets with houses and some commercial buildings are visible. The text is overlaid on the image.

Hancock County Flood Risk Reduction Program

Hydraulic Improvements (Phase 1) Project 2018 MWCD Annual Meeting Presentation

May 4, 2018

Agenda



Project Overview

- Floodplain Benching & Soil Disposal
- In-River Structure Removal
- Soils Management & Disposal
- Utility Coordination
- Site Restoration

Opinion of Probable Cost

Anticipated Benefits

Project Schedule

Questions & Comments

Project Overview

Floodplain
Bench Widening

Remove Inline
Riffles/Dams

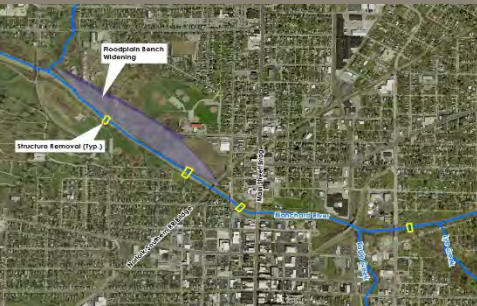
Norfolk-Southern
RR Bridge
Modifications in
Phase 2

Hydraulic Improvements (Phase 1)

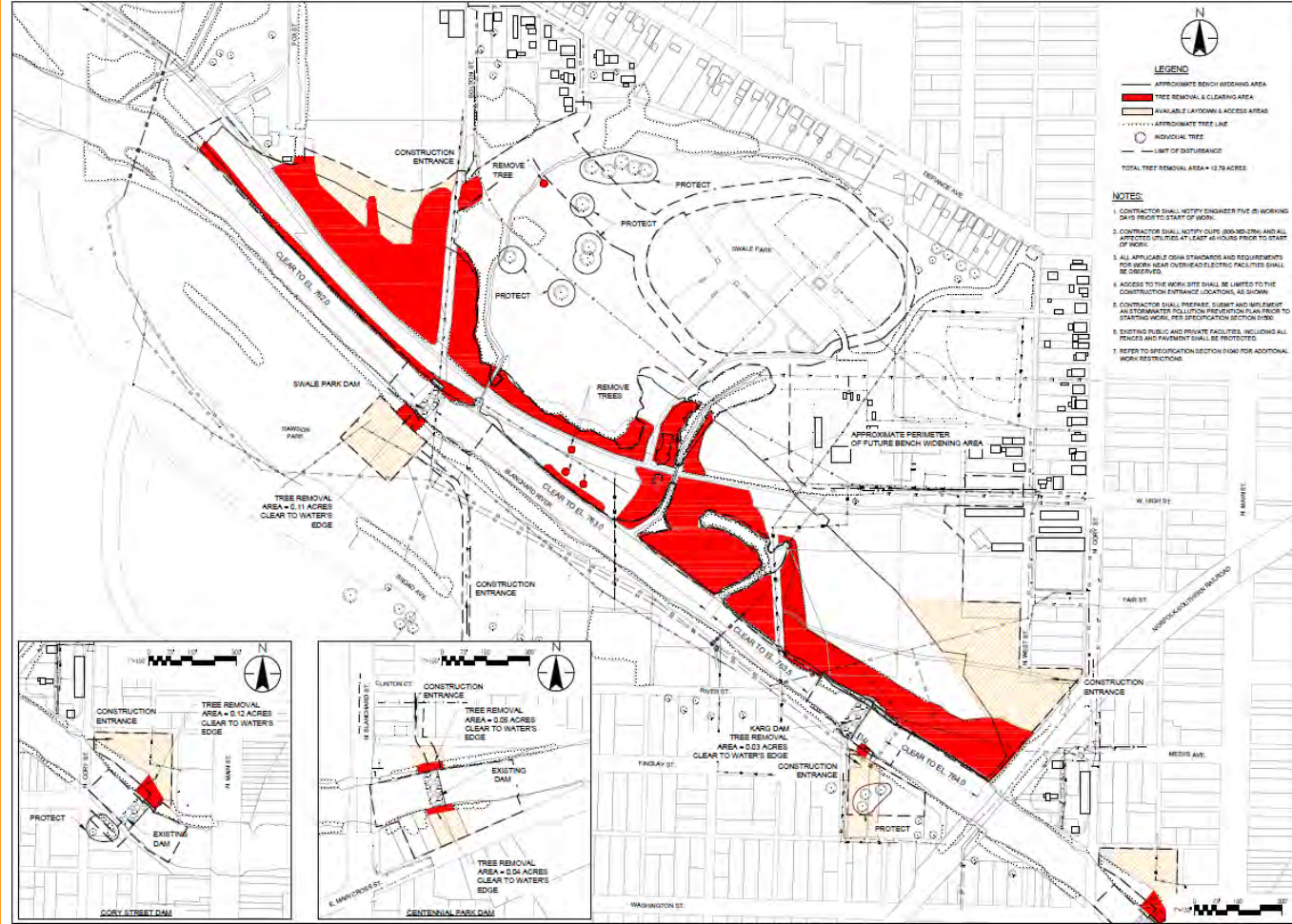


Project Overview

Tree Clearing

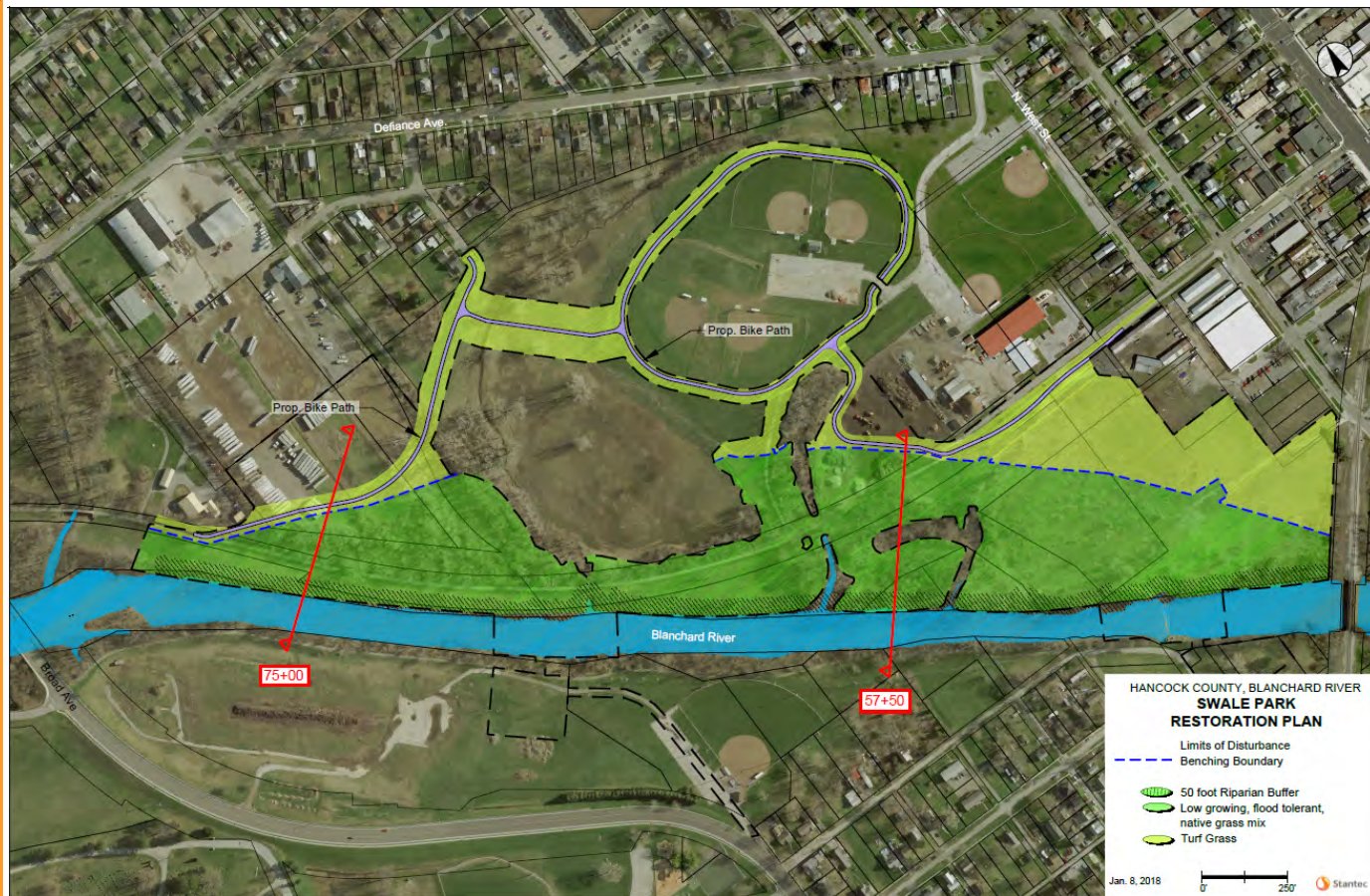
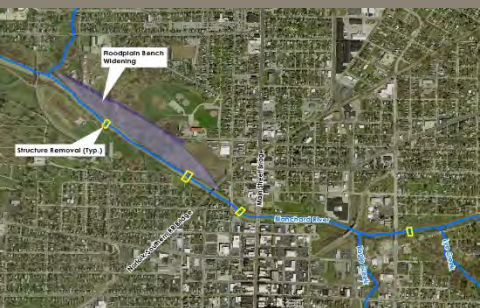


Tree Clearing
Completed
March 31, 2018



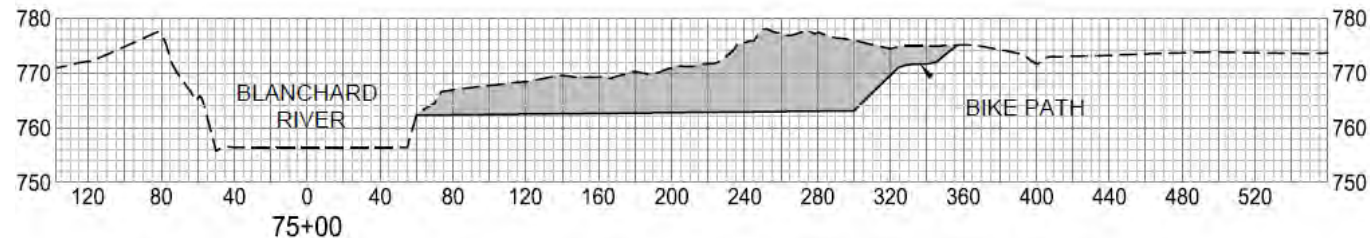
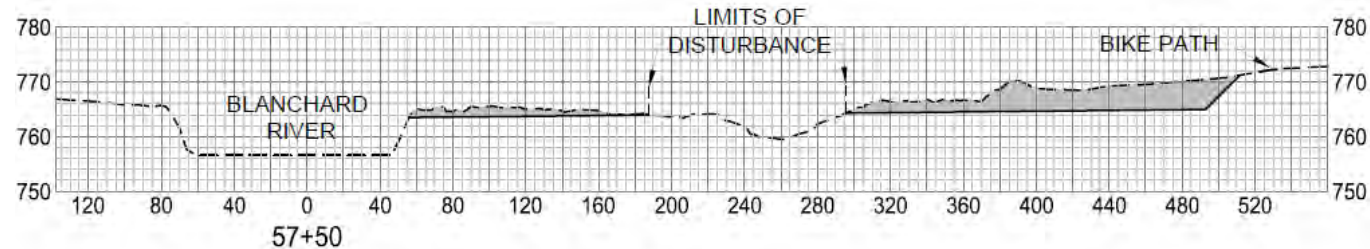
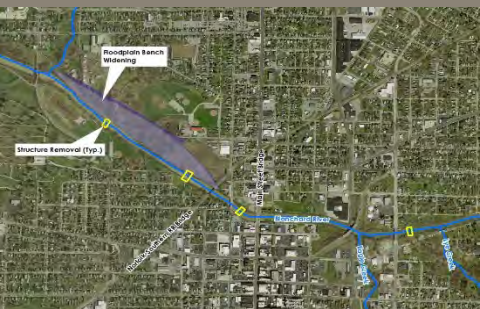
Project Overview

Floodplain Benching



Project Overview

Floodplain Benching Cross Sections



Project Overview

Existing Inline Structure Removals

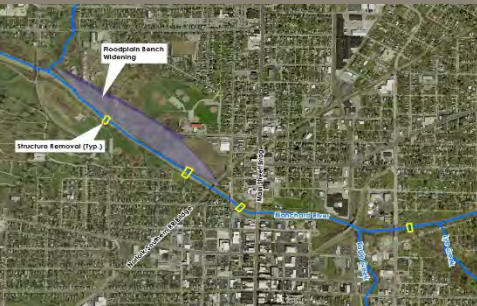
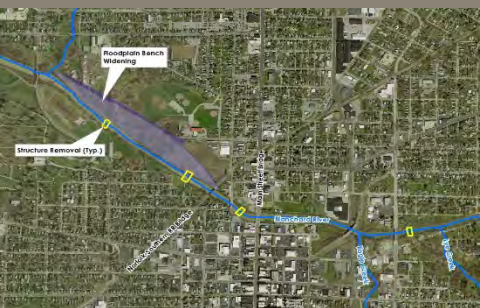


Figure 1 – Blanchard River – Existing Inline Structure - (Cory Street Dam)



Figure 2 – Blanchard River – Existing Inline Structure - (Centennial Park Dam)

Project Overview



Constructed Riffles

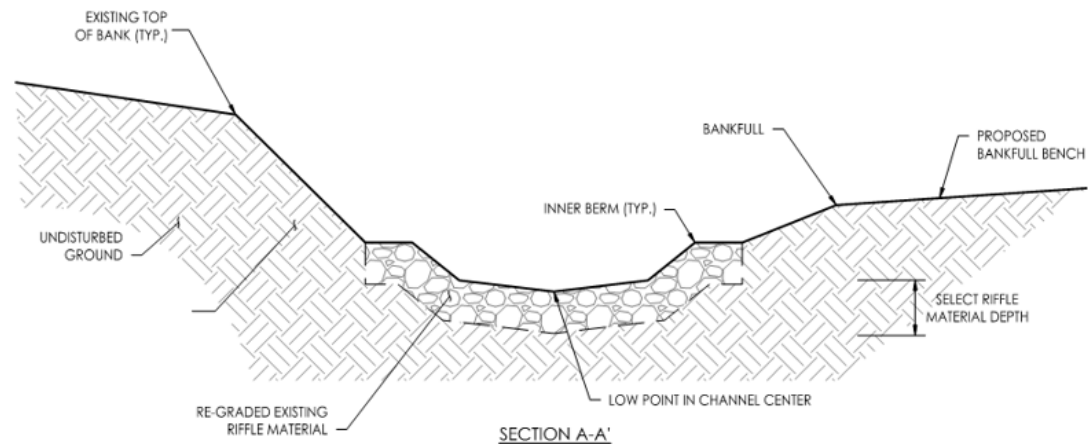


Figure 5 – Example Constructed Riffle – (Section Detail)

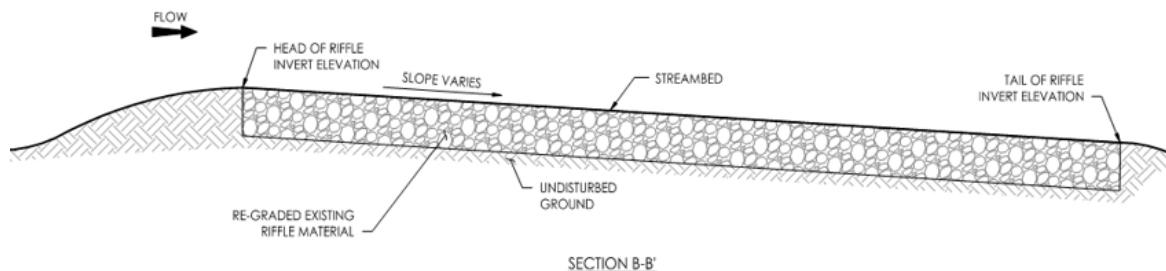


Figure 6 – Example Constructed Riffle – (Profile View)

Project Overview

Example Project

Proposed Riffle Structures



Figure 7 – Kalamazoo River – Example Before Dam Removal (Pre-Construction)

Project Overview

Example Project

Proposed Riffle Structures

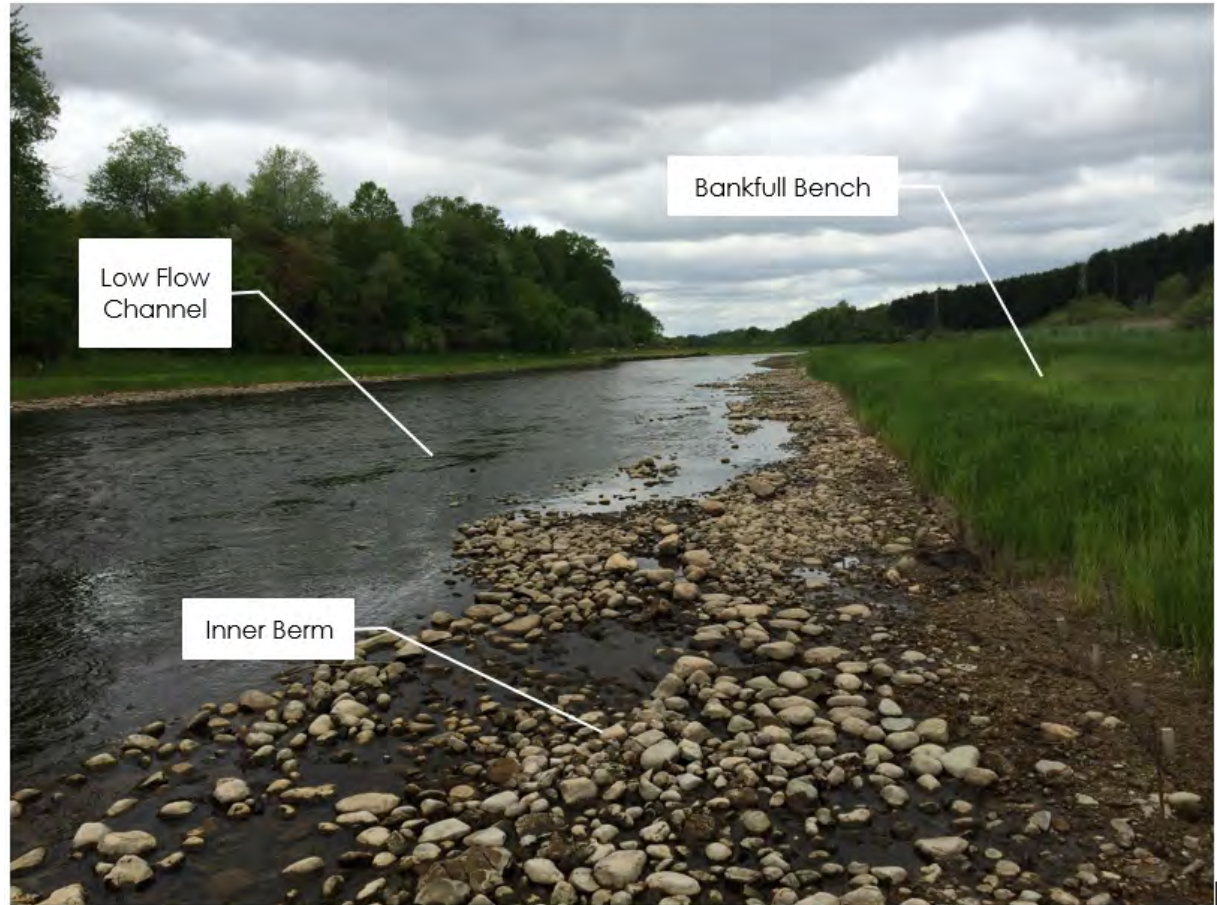


Figure 8 – Kalamazoo River – Constructed Riffle (Post-Construction)

Soils Management

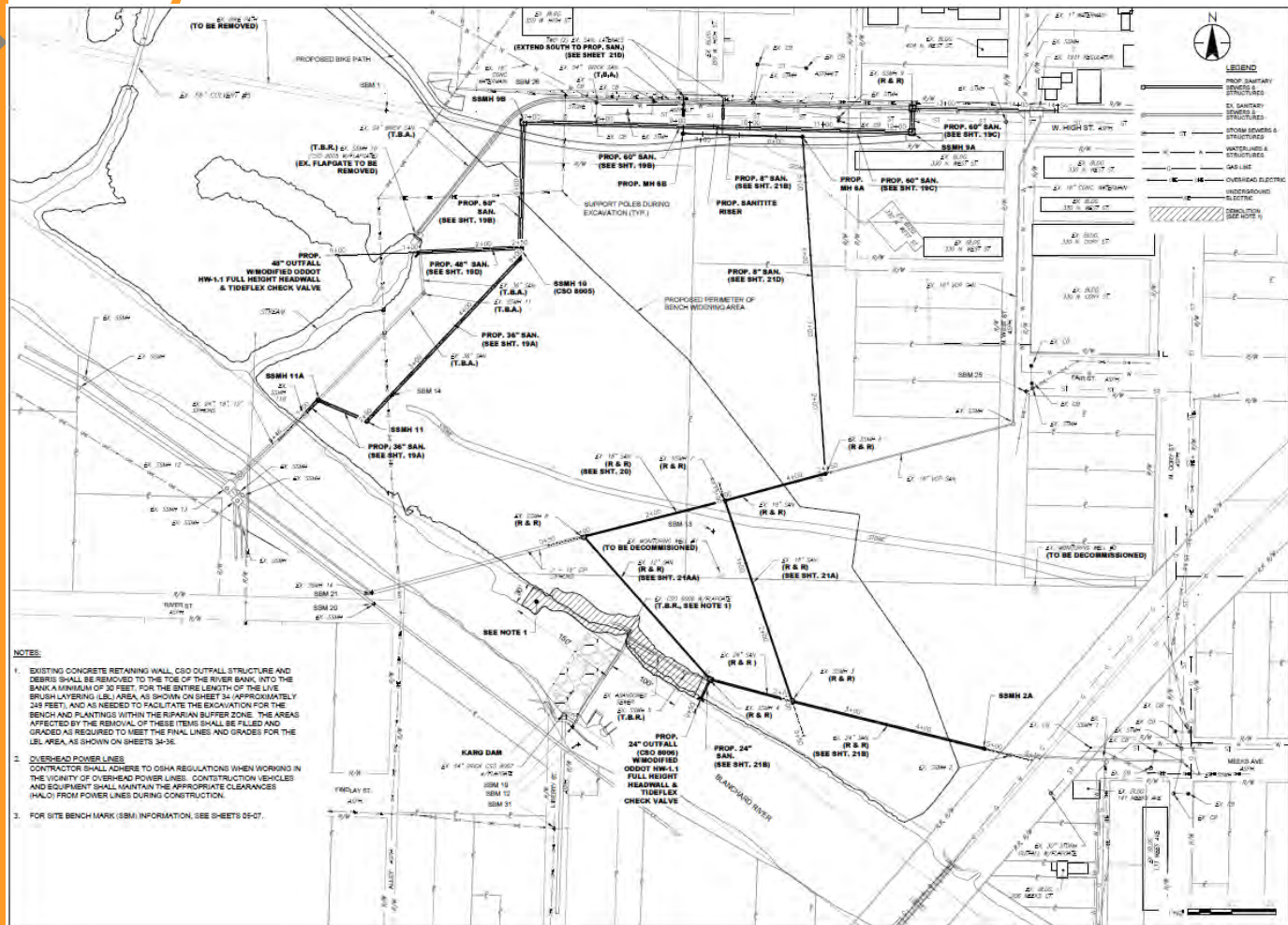
Brandman Area



Project Overview

Utility Coordination

AEP Overhead Electric City Combined Sewers











Opinion of Probable Costs

Hydraulic
Improvements
(Phase 1) Only

Project Costs

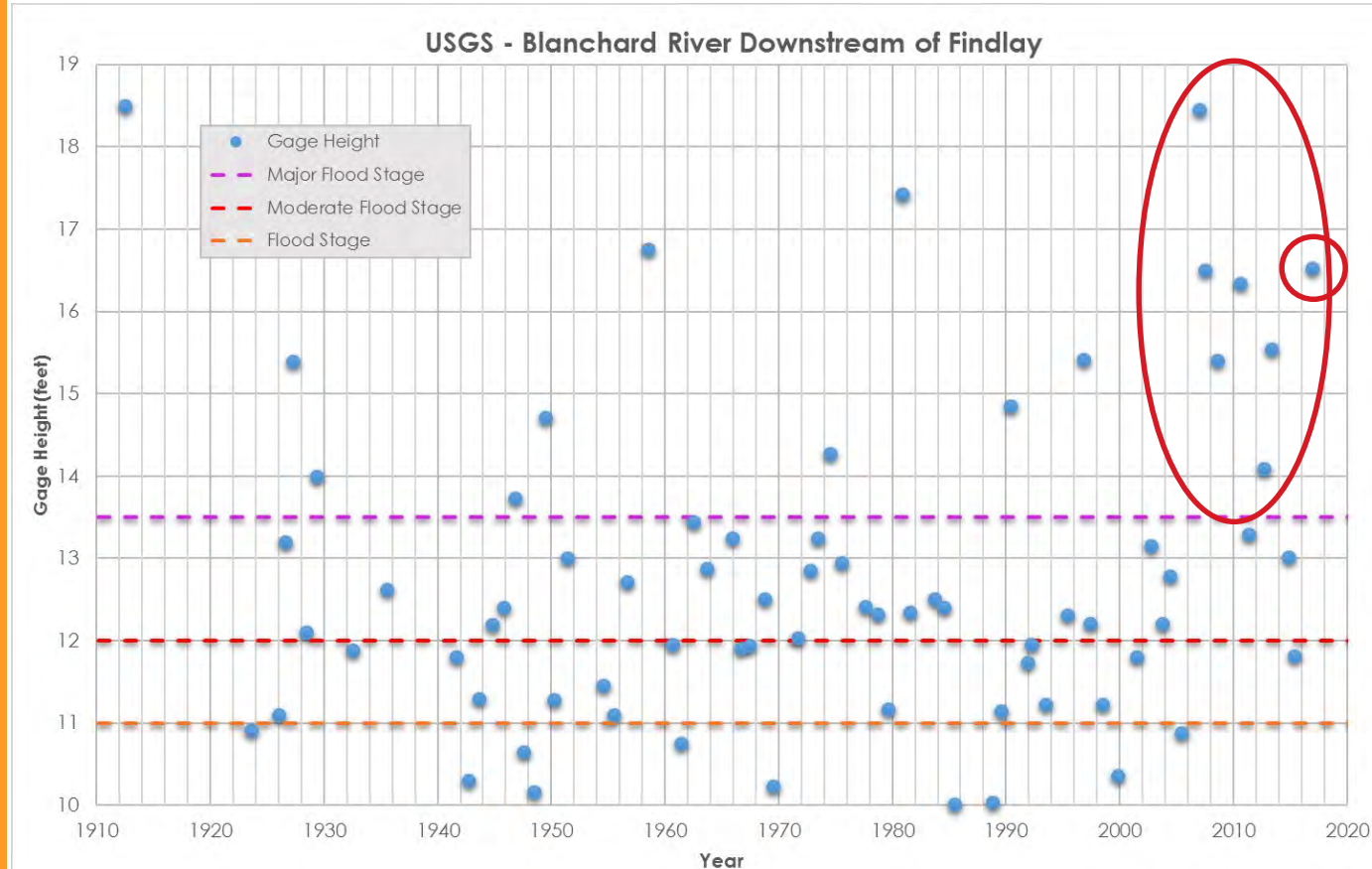
Hydraulic Improvements - Phase I - Opinion of Probable Costs	
Description	Amount
Construction Costs	
In-Stream Improvements:	\$1,638,000
Floodplain Bench Widening Improvements:	\$7,099,200
Utility and Bike Path Improvements:	\$1,347,900
Utility Coordination:	\$768,800
CONSTRUCTION SUBTOTAL	\$10,853,900
Contingency (10%)	\$1,085,390
CONSTRUCTION TOTAL	\$11,939,290
Other Costs	
Tree Removal (Including Debris Removal)	\$105,000
Stream Wetland and T&E Mitigation	\$77,250
Construction Administration	\$675,000
OTHER SUBTOTAL	\$857,250
TOTAL PROJECT COSTS	\$12,797,000

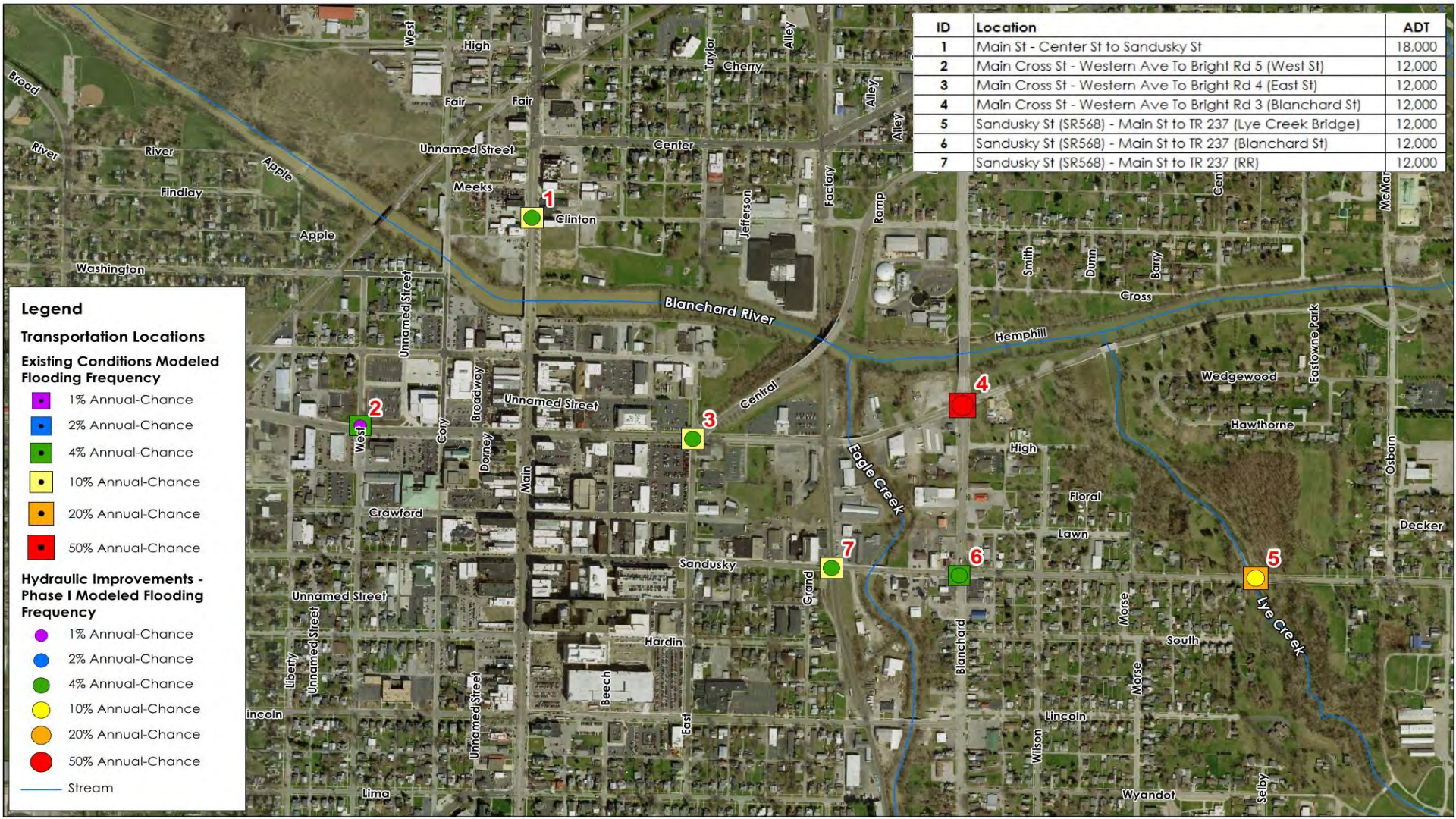
Local Flooding

Seven Events
Since 2000

July 2017 Event
~4% (25-year)
ACE

Historic Flood Events



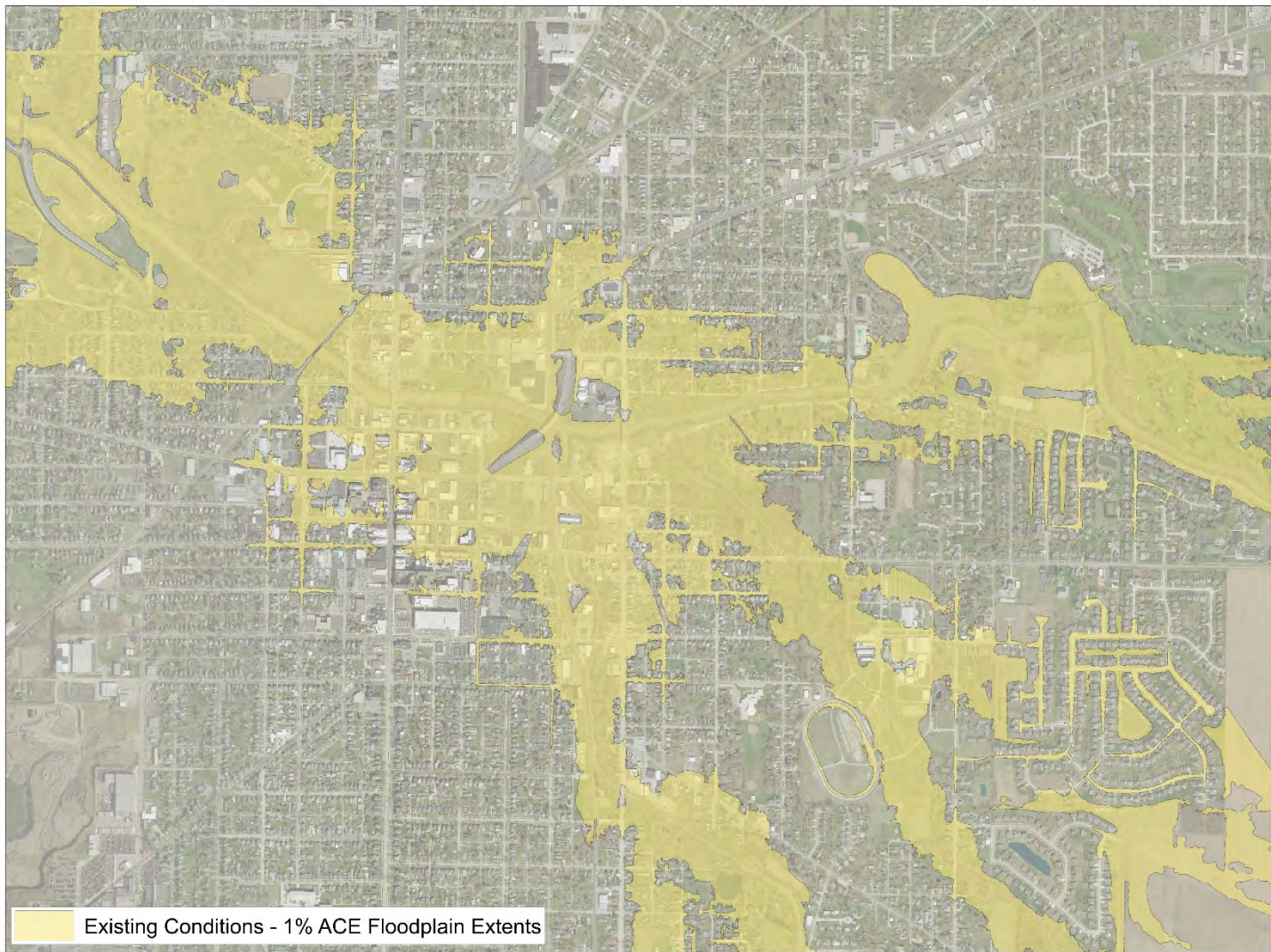


ID	Location	ADT
1	Main St - Center St to Sandusky St	18,000
2	Main Cross St - Western Ave To Bright Rd 5 (West St)	12,000
3	Main Cross St - Western Ave To Bright Rd 4 (East St)	12,000
4	Main Cross St - Western Ave To Bright Rd 3 (Blanchard St)	12,000
5	Sandusky St (SR568) - Main St to TR 237 (Lye Creek Bridge)	12,000
6	Sandusky St (SR568) - Main St to TR 237 (Blanchard St)	12,000
7	Sandusky St (SR568) - Main St to TR 237 (RR)	12,000

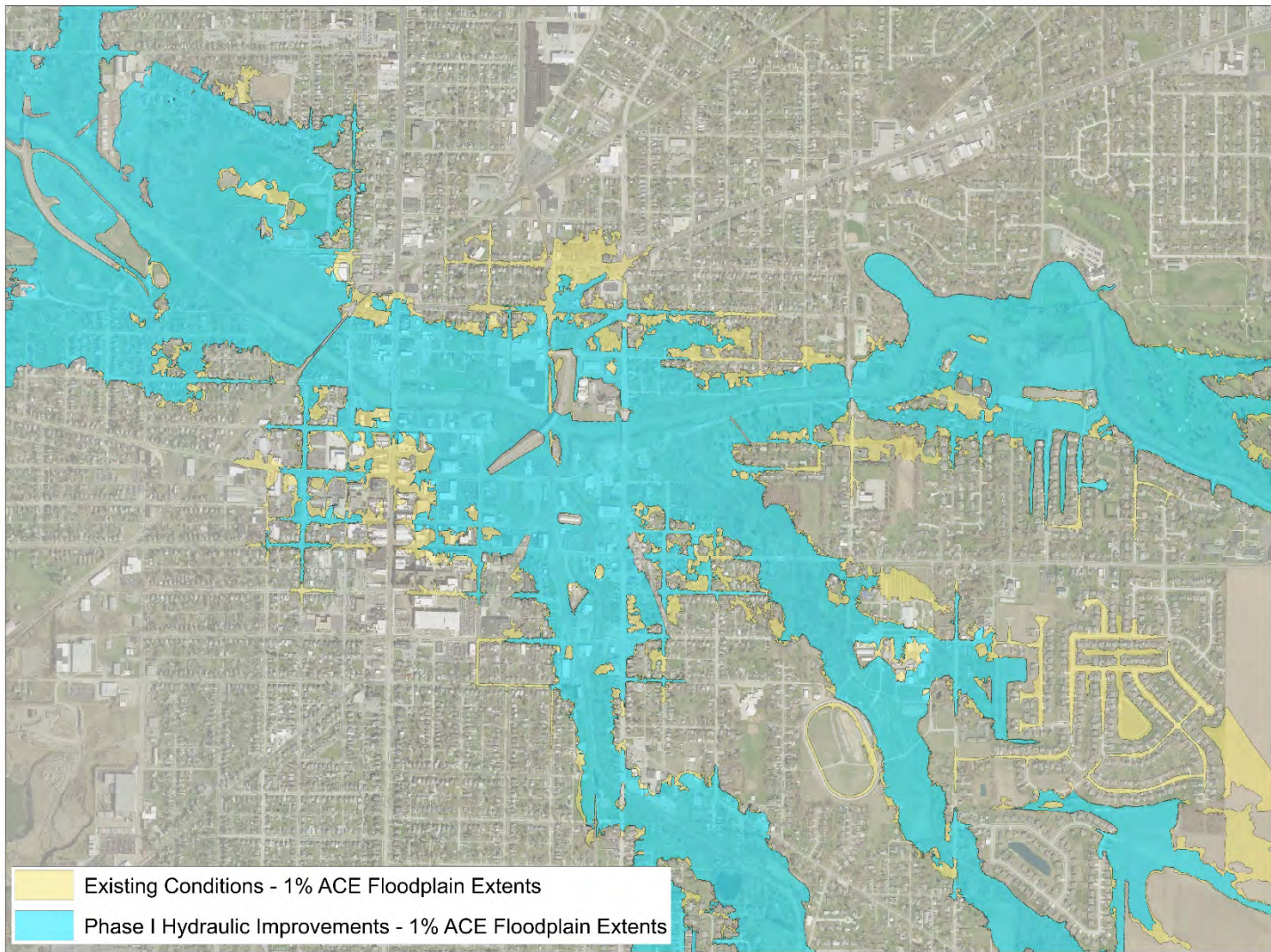
Anticipated Benefits

- Increased Wetland Function
- Improved Water Quality
- Fish Passage & Aquatic Habitat
- Enhanced Recreational Opportunities
- Reduced Transportation Impacts
- **1% *ACE Floodplain Reduction*** ~ LOMR To Be Filed Following Construction

1% ACE Floodplain



1% ACE Floodplain



Anticipated Schedule

Targeting
permits to be
issued
Summer 2018

Permitting

- USACE 404 Permit
 - Public Comment Period Closed
 - Inter-Agency Coordination On-Going
- OEPA 401 WQC Permit
 - 401 Public Hearing ~ June 26th
- OEPA Permit to Install (Sewer Replacements)
- OEPA Rule 27-13 Application (Brandman Site)
- Floodplain Permit (City)

Anticipated Schedule

*Critical Path
of Project is
through
Permitting*

Design & Construction

- Tree Clearing Project
 - S.C.: Mar. 31st / F.C.: May 15th
- Final Design
 - 60% Design submitted Dec. 8, 2017
 - 95% Design submitted May 1st
 - Final IFB Package (estimate July 2018)
- Construction
 - Bidding & Award: Aug. 2018 / NTP: Sep. 2018
 - S.C.: Aug. 2019 / F.C.: Oct. 2019

Questions & Comments

Documents Posted to Project Webpage

www.HancockCountyFlooding.com

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Project Manager

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