



Woodcrest Neighborhood Meeting

Project #FM-19-C

August 22, 2019

5:30 PM



Overview

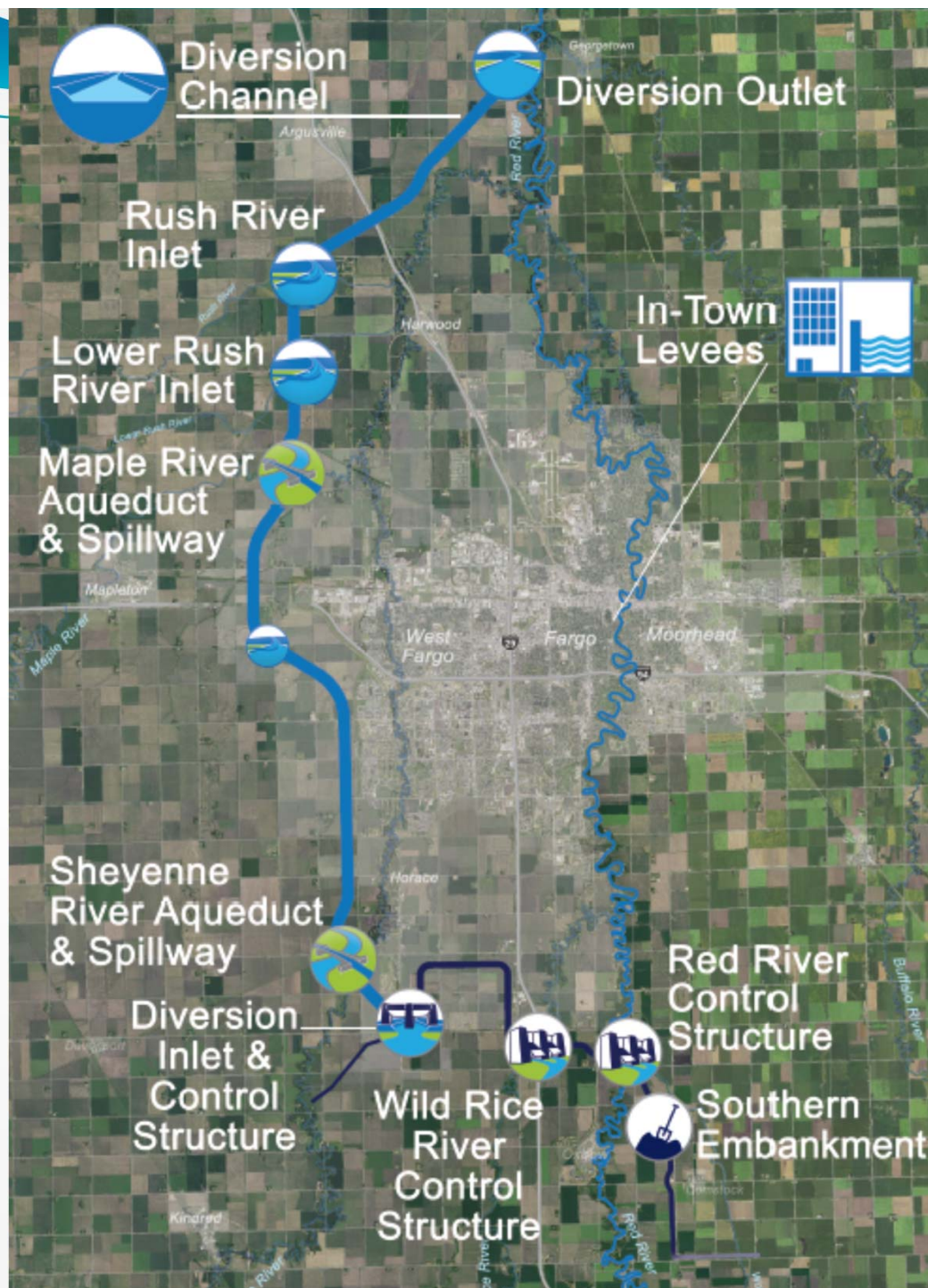
- *Fargo-Moorhead Diversion Project Update*
- *In-Town Projects*
- *Woodcrest Neighborhood*
- *Project Timeline*
- *Property Owner Comment*
- *Questions*



FM Diversion

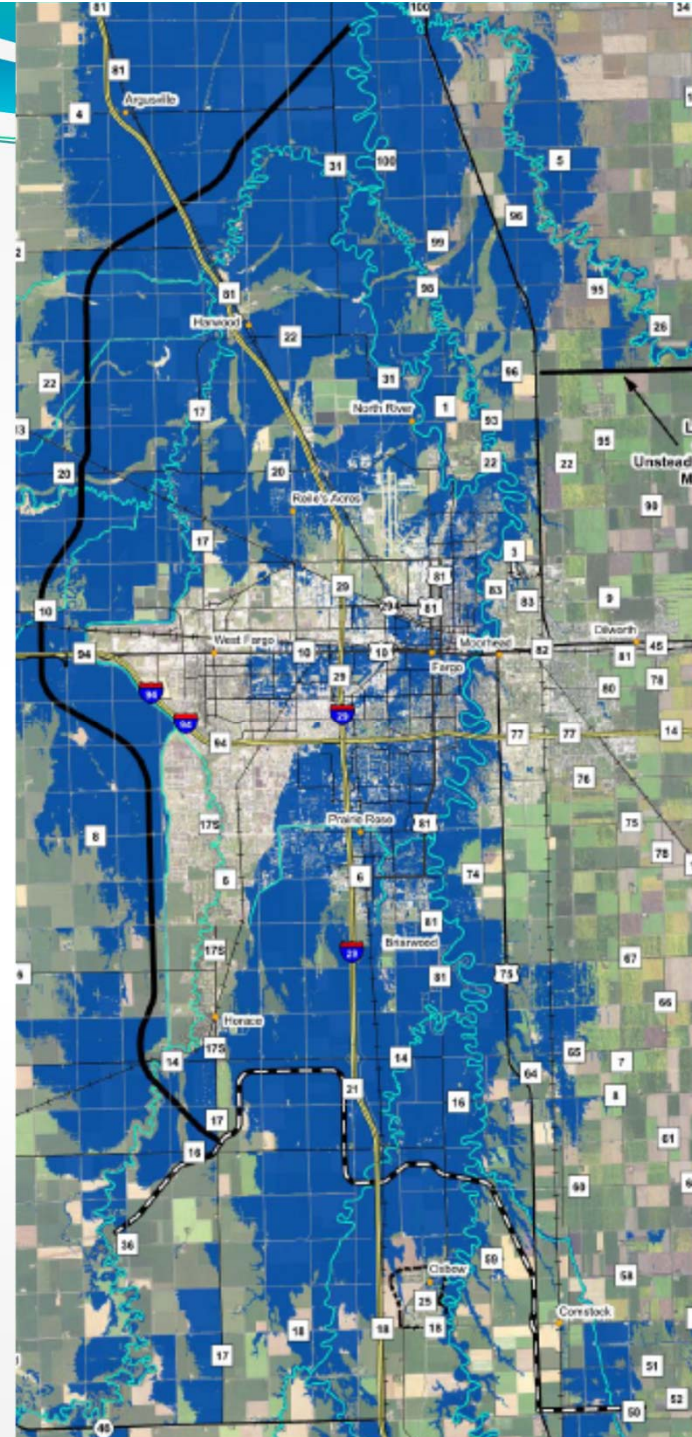
Diversion Project “Plan B”

- 100-year Flood Protection Minimum
 - Some features designed to PMF (Probable Maximum Flood) as required by State and Federal Dam Safety Requirements
- Diversion Channel
- Southern Embankment and Control Structures
- Temporary Staging of Flood Waters Upstream to Prevent Downstream Impacts
- In-town Levees
 - Additional levees needed to safely pass RS 37-feet during 100yr flood.



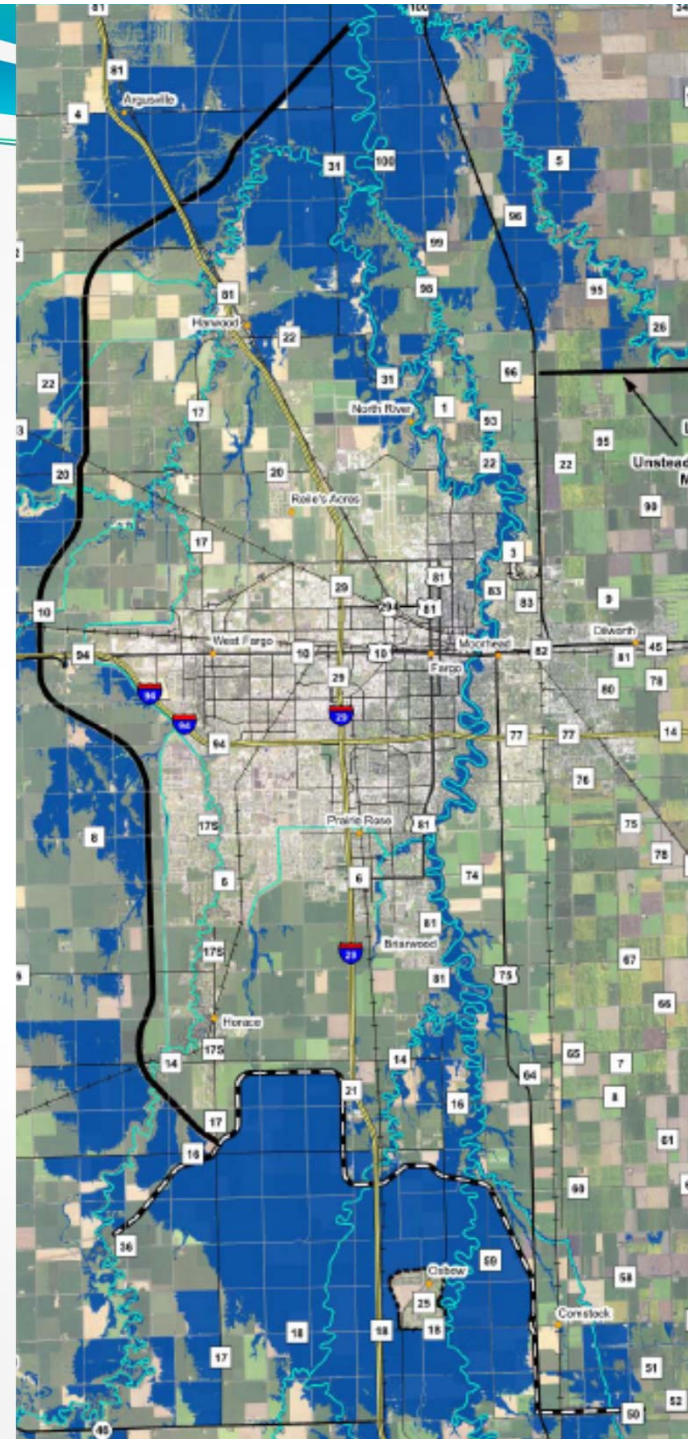
Existing Conditions

- 100-year floodplain shown in blue



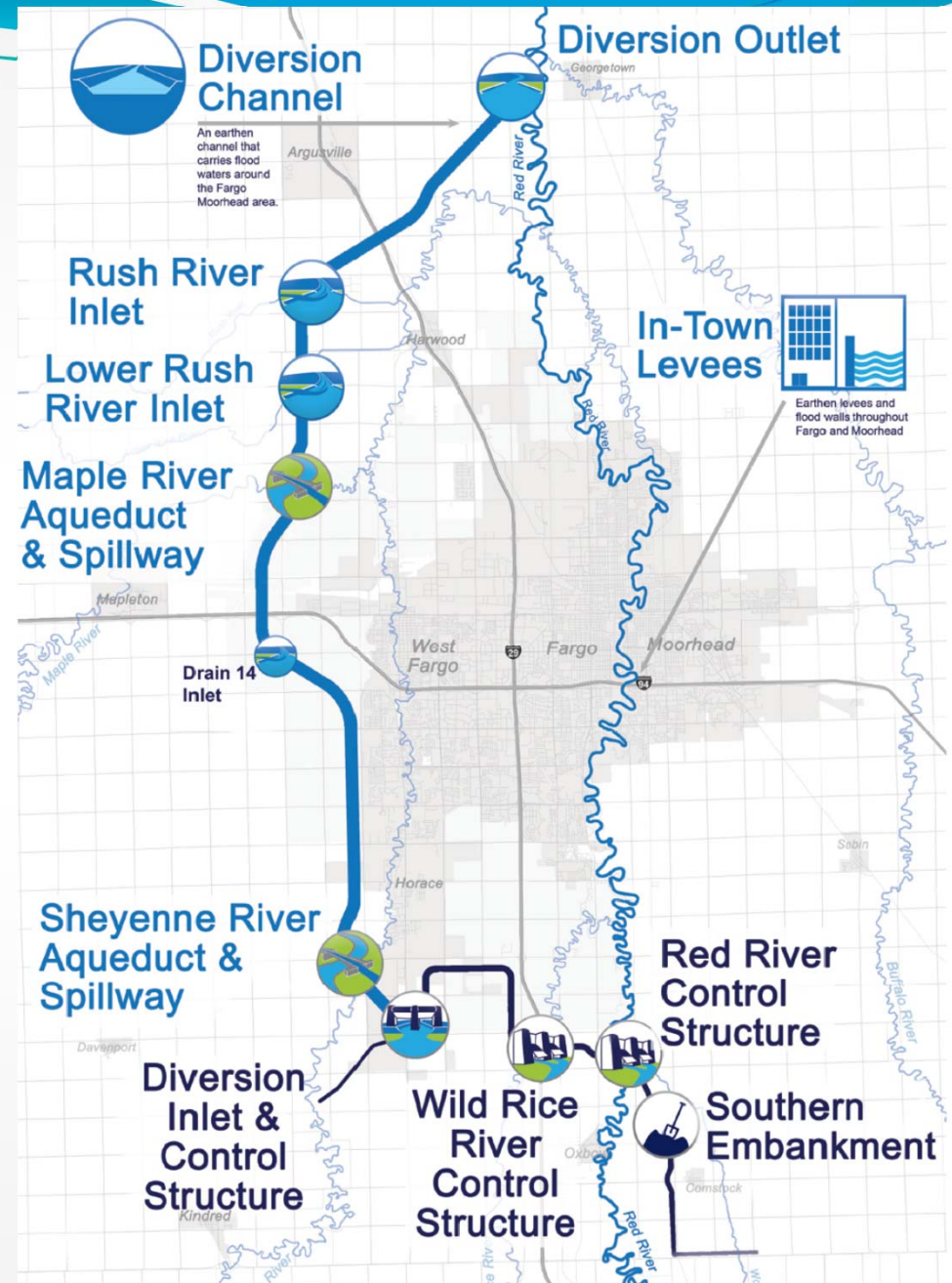
With Project

- 100-year floodplain with project shown in blue
- Project also gives the ability to defend against a 500-year flood
 - Would require 18-20 miles of temporary clay and sandbag levees



FM Diversion Project Status

- 2019-2021 Biennium Goals
 - Continue USACE construction and design (dark blue)
 - Continue Plan B In-Town flood protection
 - Acquire all lands for Diversion Channel by Spring-2020
 - Bid the P3 and lock-in the costs
 - Pursue and obtain long-term loans
 - Prepare funding request for 2021 legislative session

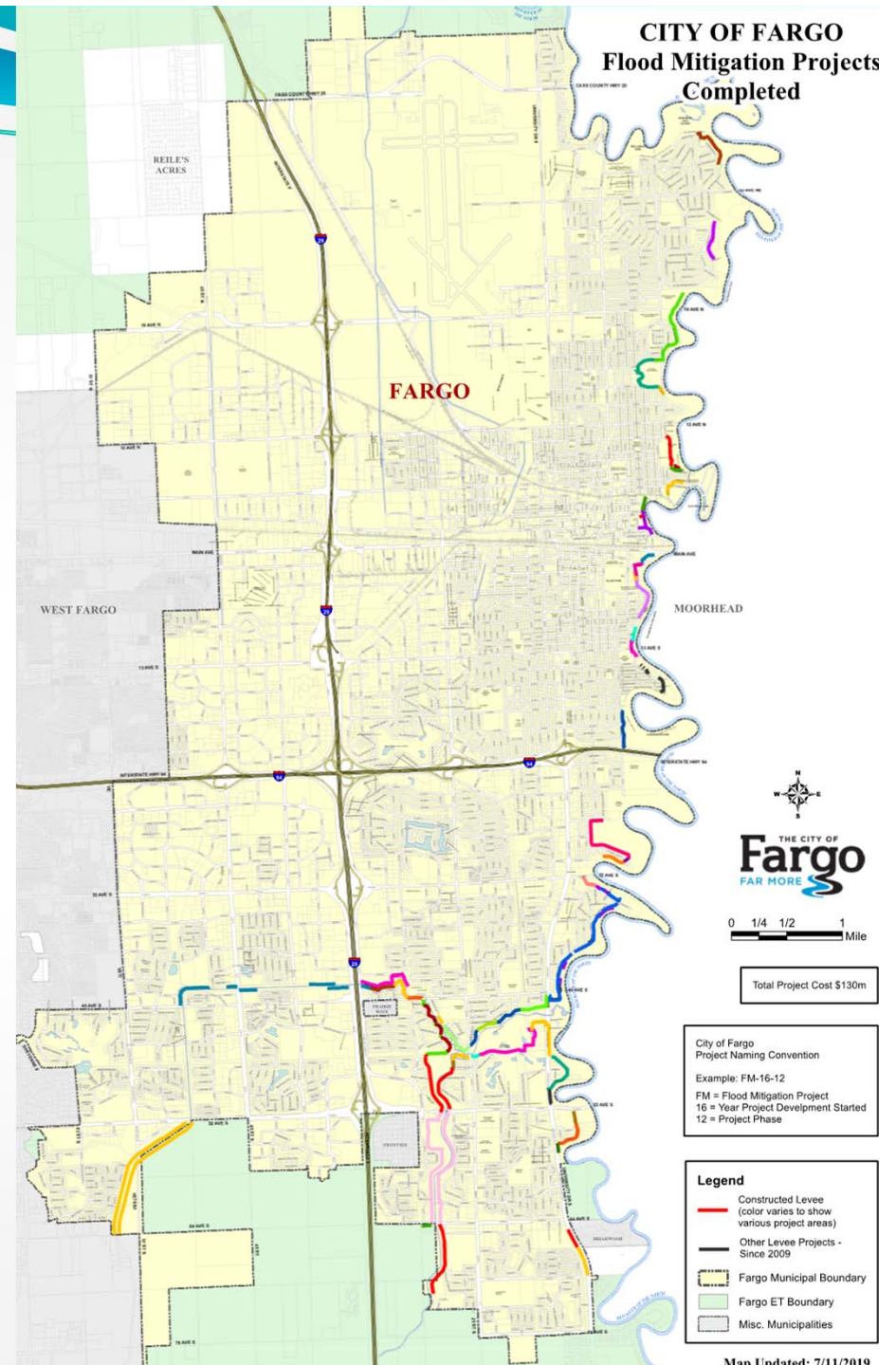


An aerial photograph of a residential neighborhood in winter. The houses are covered in snow, and the trees are mostly bare. In the foreground, there is a large body of water, possibly a lake or a wide river, which is partially frozen. The sky is a clear, pale blue. A semi-transparent blue banner is overlaid across the middle of the image, containing the text "In-Town Projects" in a black, serif font.

In-Town Projects

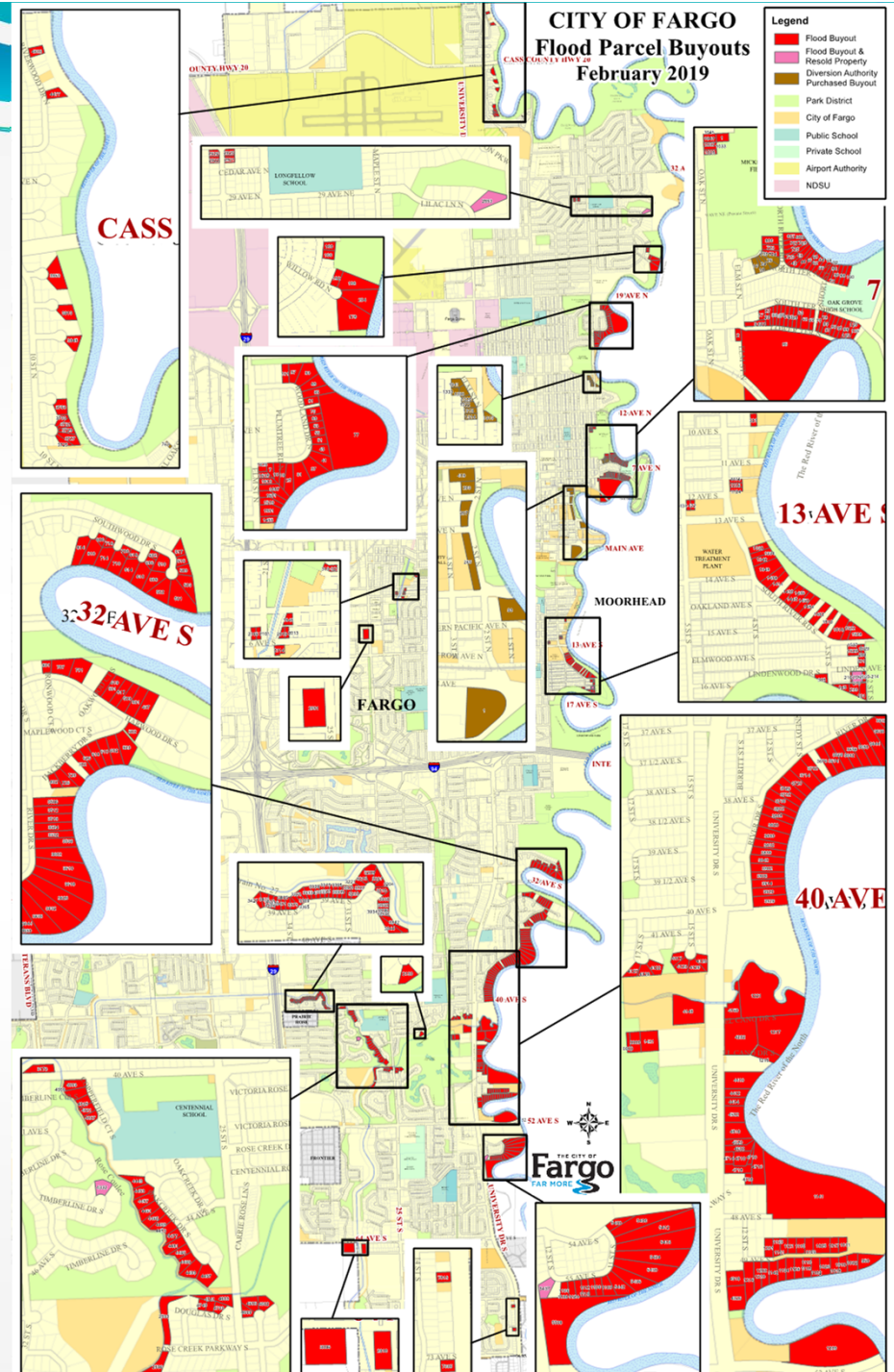
PROJECTS COMPLETED SINCE 2009

- Constructed over 21 miles
 - *47 miles of emergency levees constructed by the City in 2009
- Project Cost ≈ \$280 million
- Reduces required sandbags by approximately 5 million
 - Needed over 6 million in 2009
- All completed projects are built to proper elevations to accommodate Plan B's proposed 37' flow thru town



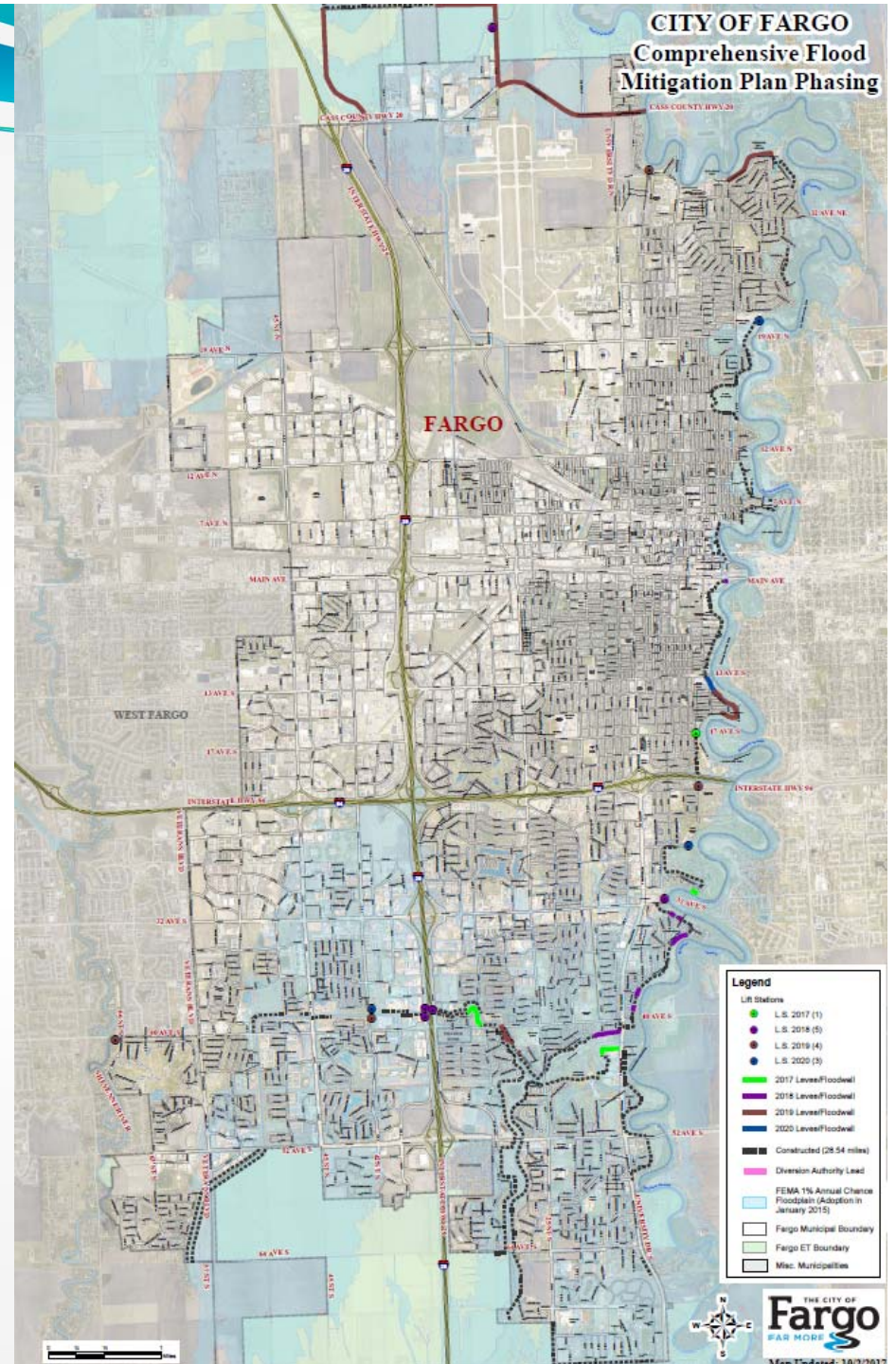
PROJECT ACQUISITIONS SINCE 2009

- 245 Properties Purchased
 - Over 380 since 1990
- At cost of over \$100 million
- Approximately 90 private property easement purchased



2019 PROJECTS UNDER CONSTRUCTION

- Four Projects
 - Rosewood Addition – Final Phase
 - Oakcreek & Copperfield Ct – Final Phase
 - Belmont Park – 2nd Phase
 - 2nd Street S & Main Ave – Final Phase
- Total Length ≈ 0.75 mile
- Total Construction Cost ≈ \$15.7M



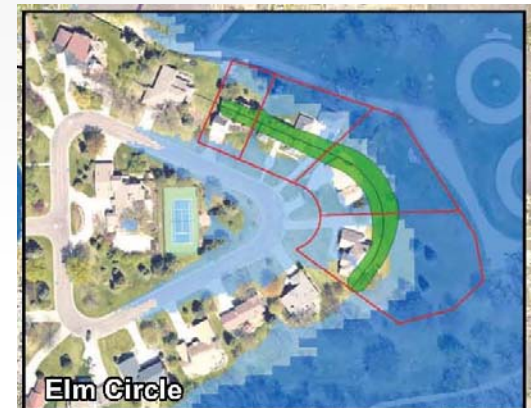
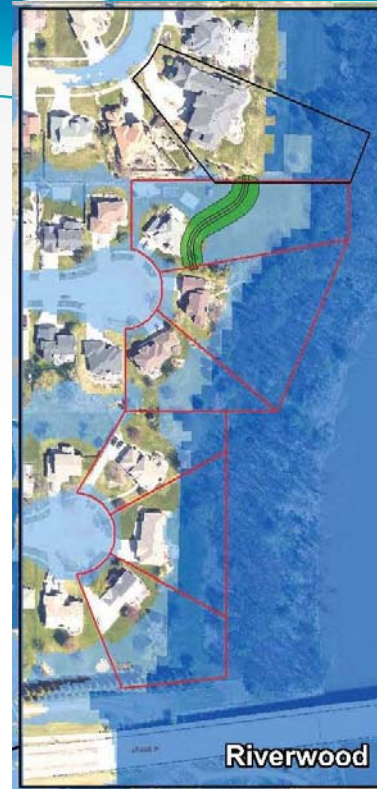
REMAINING PROJECTS

- 2016 Revised Comprehensive Plan Projects
 - Harwood, Hackberry & River Drives
 - 3 Acquisitions Remain
 - Levee Construction
 - Belmont Park
 - 3 Acquisitions Remain
 - Levee & Floodwall Construction
 - Water Intake Building Modifications
 - Drain 10/Airport Area
 - Levee Construction
 - Storm Sewer Lift Station Replacement
 - Storm Sewer Lift Stations Improvements



REMAINING PROJECTS

- Plan B Additional In-Town Projects
 - Riverwood Addition
 - Potential Acquisitions
 - Levee Construction
 - Storm Sewer Lift Station Replacement
 - Royal Oaks
 - Potential Acquisitions
 - Levee Construction
 - Woodcrest
 - Potential Acquisitions
 - Levee Construction
 - Storm Sewer Lift Station Replacement
 - Elm Circle
 - Potential Acquisitions
 - Levee Construction
 - Oak Grove
 - Potential Acquisitions
 - Levee Construction
 - Storm Sewer Lift Stations Improvements



An aerial photograph of a residential neighborhood in winter. The houses are covered in snow, and the trees are mostly bare. In the foreground, there is a large body of water, possibly a lake or a wide river, with some snow-covered trees and a small structure in the water. The overall scene is peaceful and scenic.

Woodcrest

PROJECT OVERVIEW



PROJECT OVERVIEW



PRELIMINARY




 Proj. No. 6059-0165
Houston
 Engineering Inc.
 Ph: 701.237.5065

ALL ELEVATIONS ARE BASED ON THE U.S.S. VERTICAL DATUM OF 1988. (UNLESS NOTED OTHERWISE)

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REVISIONS	
①	SEAL
②	
③	

PRELIMINARY

Plan View
 Woodcrest FMP
 PROJECT FM-19-C0

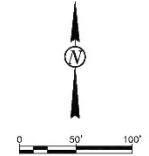
DESIGN BY: RGE
 DRAWN BY: JKH


THE CITY OF

 FAR MORE

C:\Users\james\appdata\local\temp\AutoCAD\2018\11\19\19_03\19_03_19.dwg

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REVISIONS	
1	SEAL
PRELIMINARY Plan View Woodcrest FMP PROJECT FM-19-C0	

DESIGN BY: ROE
 DRAWN BY: JKH

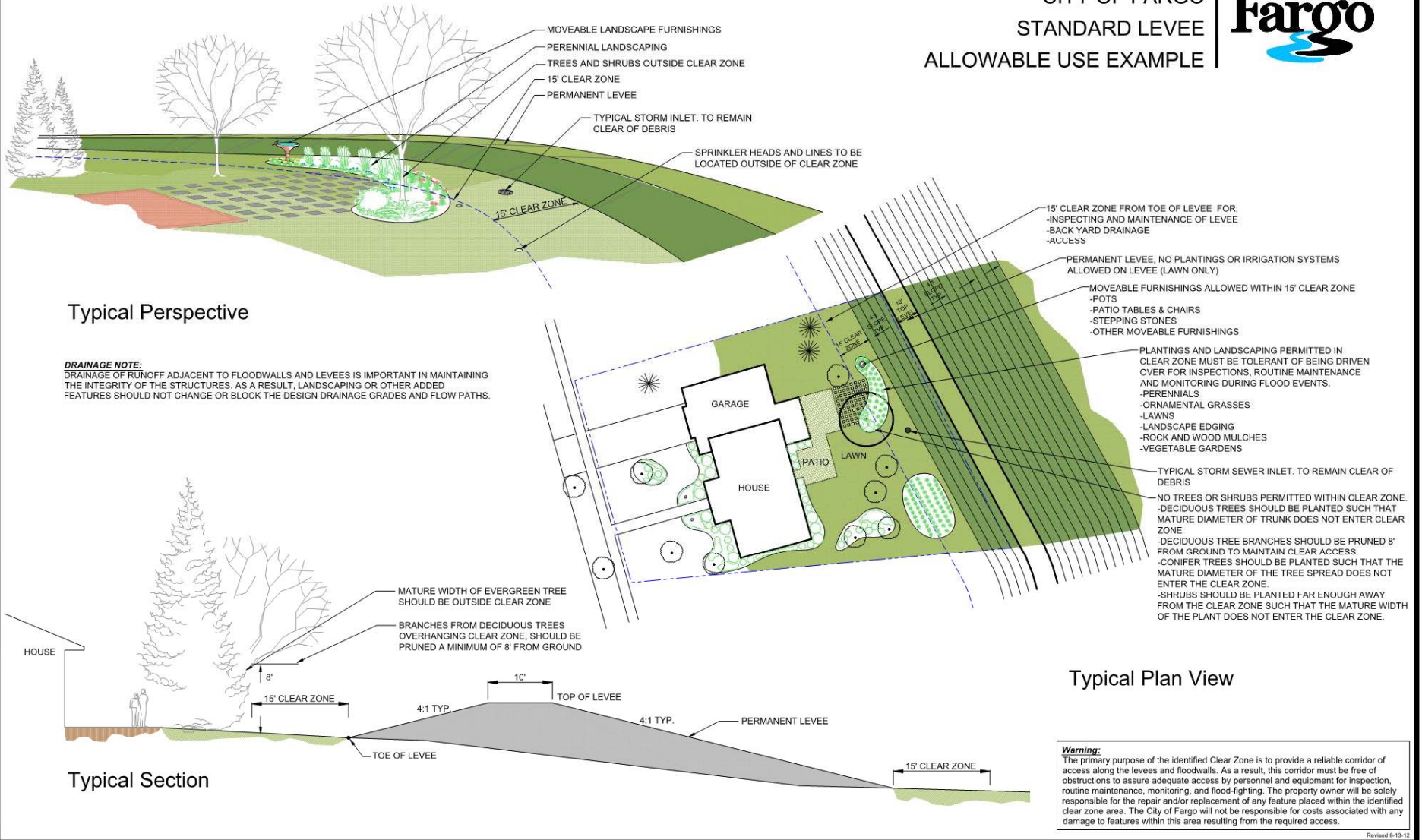

THE CITY OF
Fargo
 FAR MORE

STANDARD LEVEE EXAMPLE



STANDARD LEVEL ALLOWABLE USE

CITY OF FARGO STANDARD LEVEL ALLOWABLE USE EXAMPLE



Warning:
The primary purpose of the identified Clear Zone is to provide a reliable corridor of access along the levees and floodwalls. As a result, this corridor must be free of obstructions to assure adequate access by personnel and equipment for inspection, routine maintenance, monitoring, and flood-fighting. The property owner will be solely responsible for the repair and/or replacement of any feature placed within the identified clear zone area. The City of Fargo will not be responsible for costs associated with any damage to features within this area resulting from the required access.

MODULAR BLOCK WALL LEVEE EXAMPLE

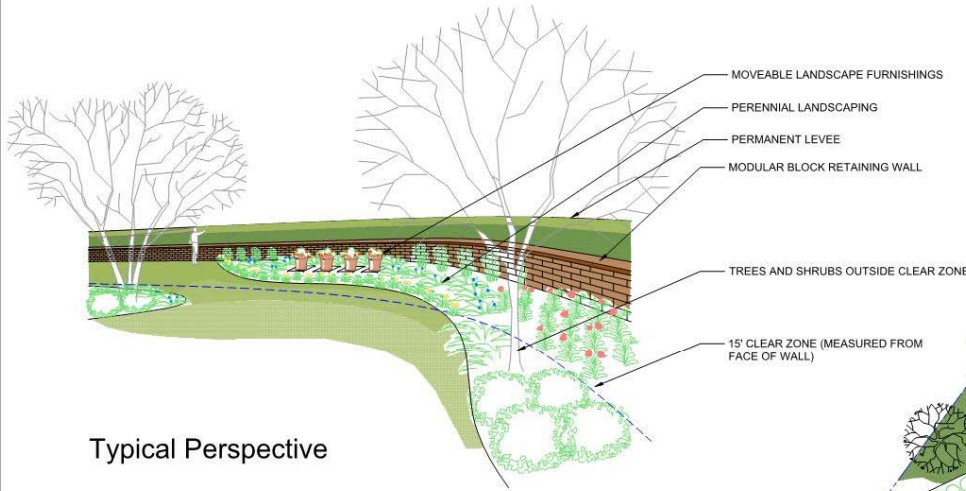


Maintenance Process

- City responsible to any significant structural integrity related issues...
- Landowner responsible to mow, regular maintenance, cosmetic repairs,...

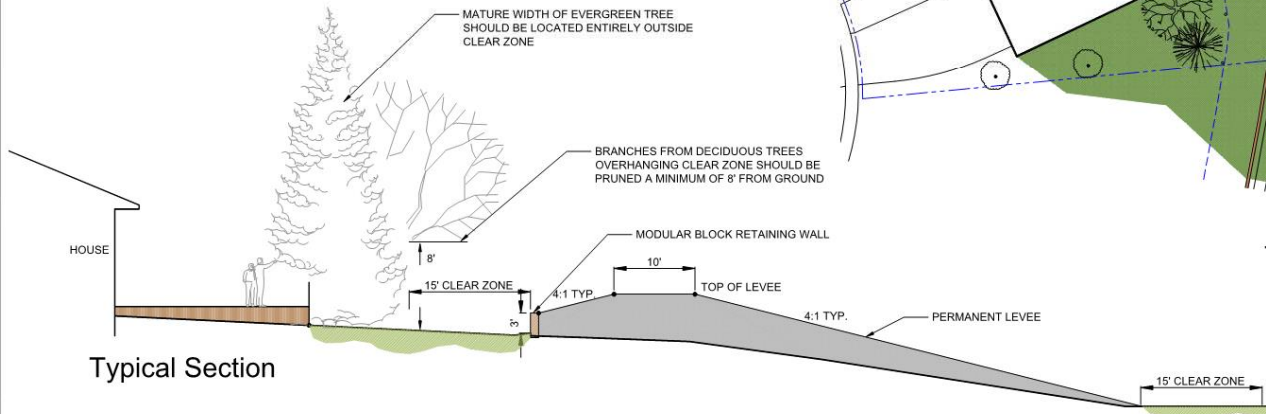
MODULAR BLOCK WALL LEVEE ALLOWABLE USE

CITY OF FARGO STANDARD COMBINATION LEVEE WITH MODULAR BLOCK WALL ALLOWABLE USE EXAMPLE

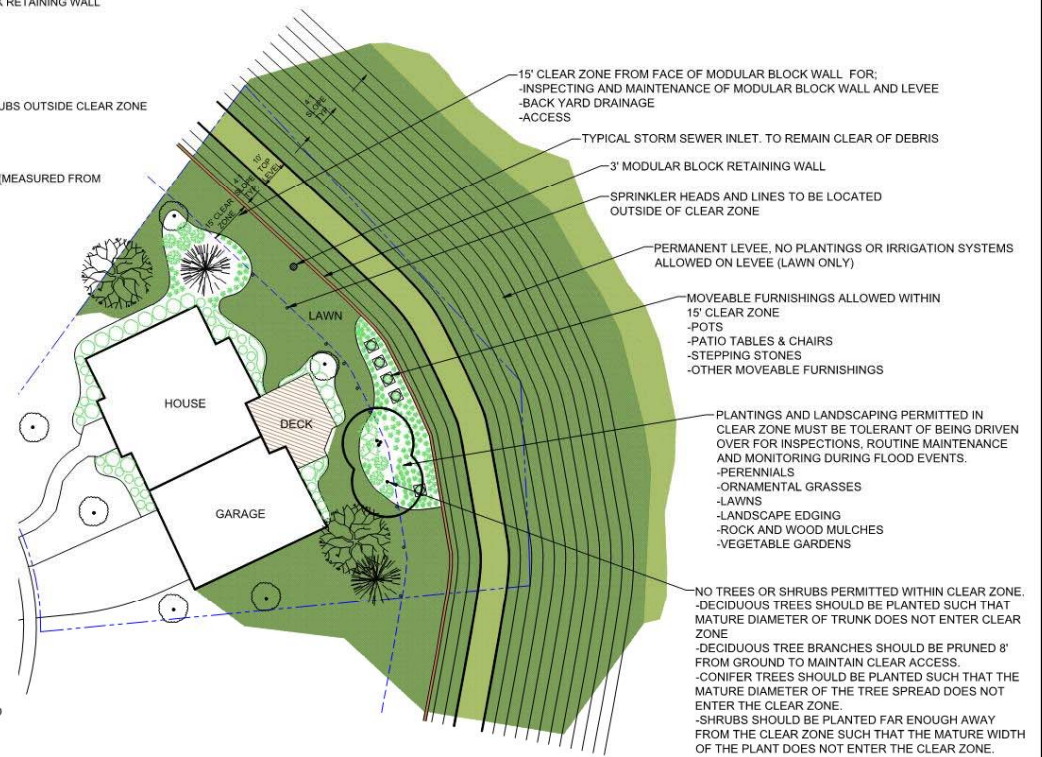


Typical Perspective

DRAINAGE NOTE:
DRAINAGE OF RUNOFF ADJACENT TO FLOODWALLS AND LEVEES IS IMPORTANT IN MAINTAINING THE INTEGRITY OF THE STRUCTURES. AS A RESULT, LANDSCAPING OR OTHER ADDED FEATURES SHOULD NOT CHANGE OR BLOCK THE DESIGN DRAINAGE GRADES AND FLOW PATHS.



Typical Section



Typical Plan View

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Path Forward

PROJECT TIMELINE

- **Public Informational Meeting (tonight)**
 - **Public Comment Period (Until 8/30)**
- **Stake Alignment(s) (9/9-9/11)**
- **On-Site Alignment Meetings (9/12)**
- **Revised Preliminary Project Design – Public Comments**
- **September – Soil Borings**
- **2ND Neighborhood Meeting – December 2019**
- **Present to City Commission for Alignment Approval (January 2020)**
- **Easement / Acquisition (Winter/Spring 2020)**
- **ND State Water Commission Review (Spring/Summer 2020)**
- **Bidding of Construction Project (Summer/Fall 2020)**
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- **Substantial Construction Completion (TBD)**
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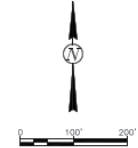
ON-SITE ALIGNMENT REVIEW



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SOIL BORINGS




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REVISIONS	
①	①
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SEAL

PRELIMINARY


Overall

Woodcrest FMP

PROJECT **FM-19-CO**

DESIGN BY: JHM CHECKED BY: JHM

DATE: 8/21/2019


 SECTION NO. SHEET NO.
 1 of 3



An aerial photograph of a residential neighborhood in winter. The houses have snow-covered roofs, and the trees are mostly bare. In the foreground, there is a large body of water, possibly a lake or a wide river, which is partially frozen. The sky is overcast. A blue banner with the word "Questions" is overlaid on the center of the image.

Questions