

Strand Associates, Inc.® (SAI)

2019 Flood Recovery Project Plattsmouth Water Supply
Public Informational Meeting for 60% Design

City of Plattsmouth, Nebraska

November 4, 2024



Presentation Agenda

- Project Purpose
- Project Team
- Water Main Design Criteria
- Water Main Route
- Water Booster Station
- What to Expect During Construction
- Easement Needs
- Opinion of Probable Construction Cost
- Next Steps and Schedule



With Permission of: City of Plattsmouth

Project Purpose

- Platte and Missouri River flooding of 2019
- Damaged water treatment plant
- Federal Emergency Management Agency (FEMA)
- New water supply for Plattsmouth



With Permission of: City of Plattsmouth



With Permission of: City of Plattsmouth

Project Team



Project Manager
Steven Perry, P.E. & Jim Olmsted, P.E.



Project Manager
Keith Hobson, P.E.

Assistant Project Manager
John Gade, P.E.

Project Engineers
Laurie Twitchell, P.E.
Noah Streeter, E.I.T.

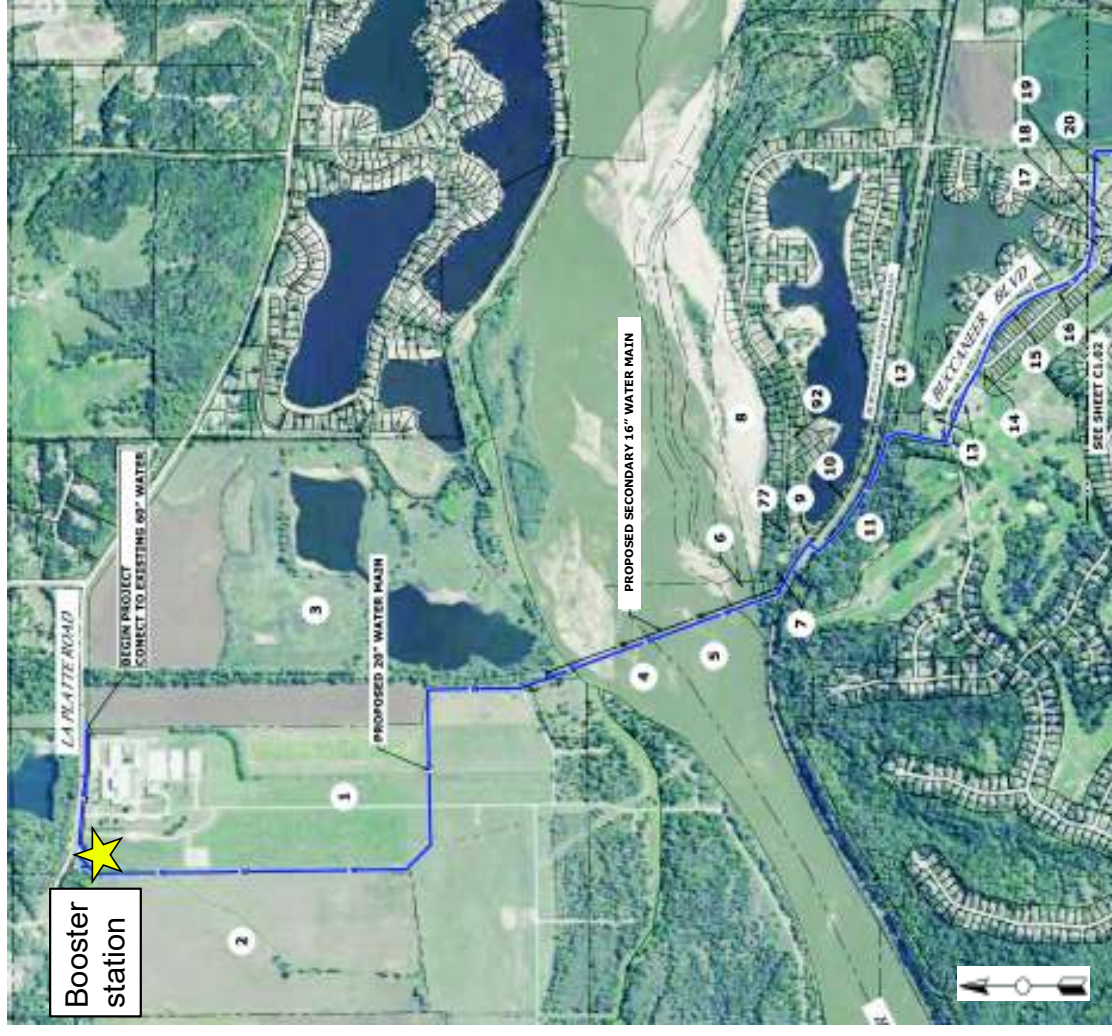


Water Main Design Criteria

CRITERIA	
Average daily water use	1.0 MGD
Peak day water demand	2.7 MGD
Design 20-yr peak day demand	3.0 MGD
Ultimate peak day demand	4.0 MGD
Pressure range in water main	20 to 140 psi
Transmission main (no water main extensions)	

Water Main Route

- Purchase water from M.U.D.
- M.U.D. connection to 60-inch water main
- Water booster station
- Platte River crossing
 - 2 pipes for redundancy
- Railroad crossing
- Buccaneer Boulevard ROW



Map data: Google

Water Main Route, Continued

- Bay Road
 - Share existing 30-foot water main easement
- Four Mile Creek crossing
- 6th Street
 - Cass County ROW Permit
 - Share existing 30-foot water main easement



Map data: Google

Water Main Route, Continued

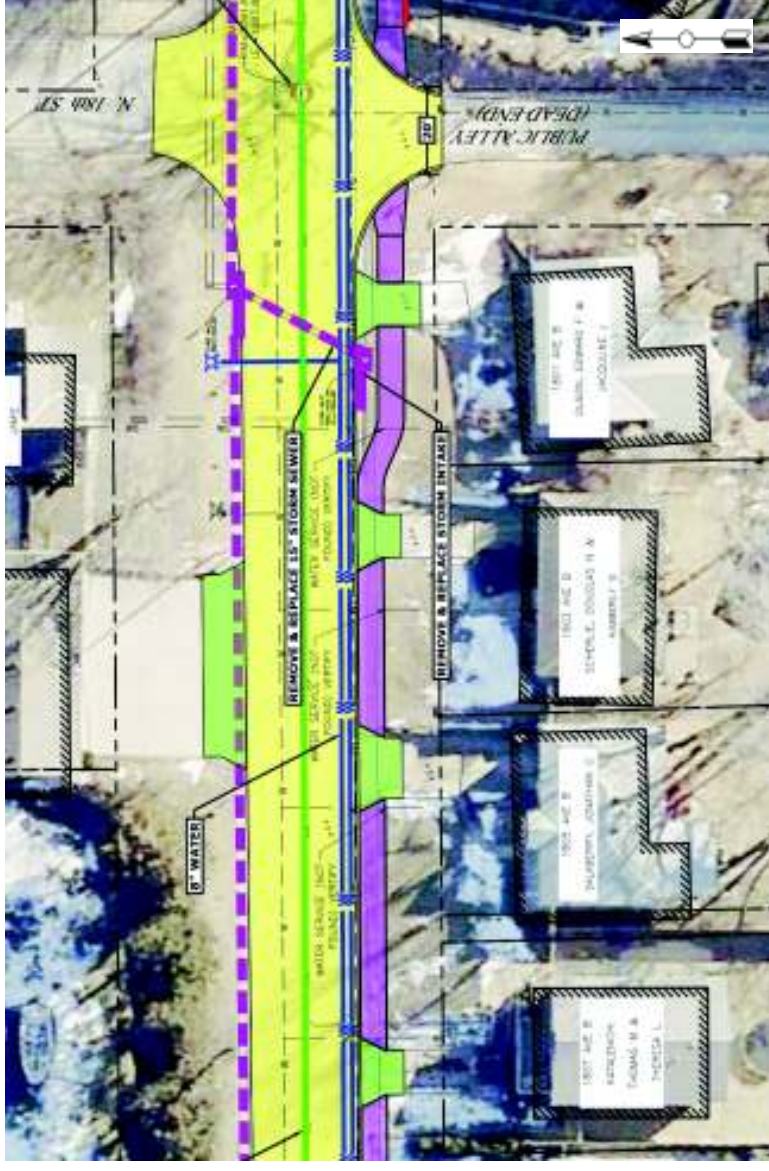
- 6th Street
- Oak Hill Road
 - Share existing 30-foot water main easement
 - Cass County ROW Permit
- HWY 75 crossing
- Avenue B reconstruction
- Railroad crossing
- Connection to existing 18-inch water main at N 16th Street



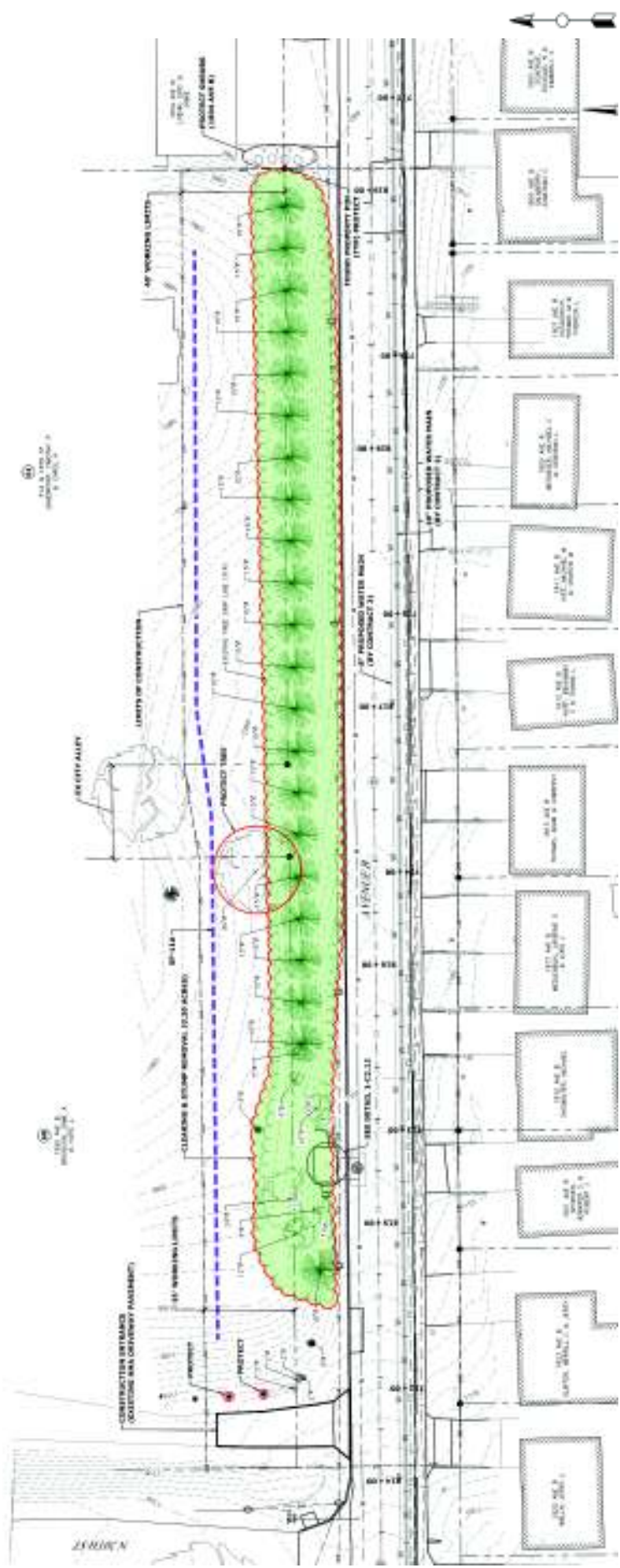
Map data: Google

Water Main Route, Continued

- Avenue B reconstruction
 - New street pavement, sidewalks, and driveways
 - New 20-inch and 8-inch water main and services
 - New storm sewer and intakes
 - Lining of existing sanitary sewer and new services
 - Demolition of Ave B Water Booster Station
 - Relocation of overhead electric

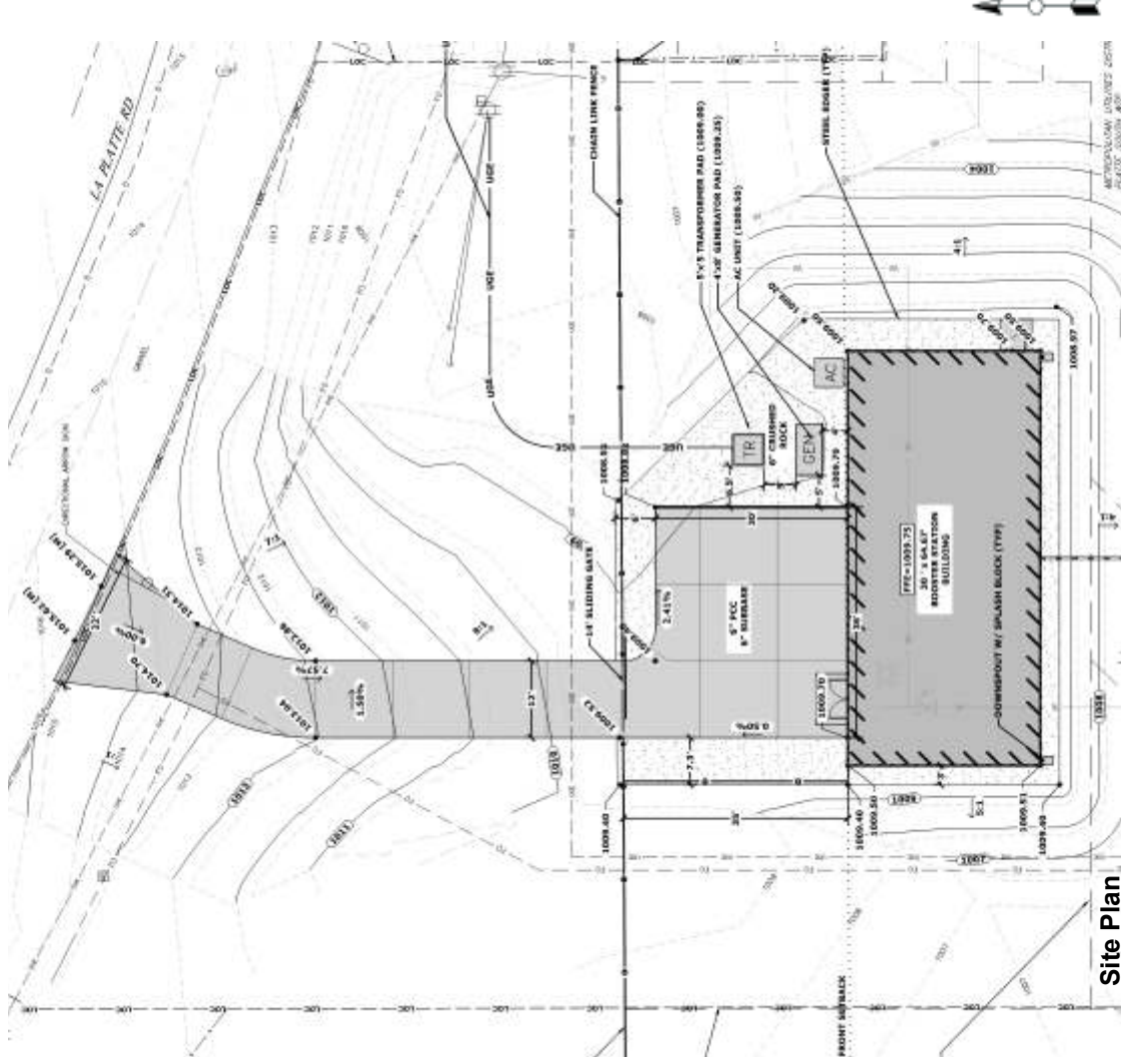


Water Main Route, Continued



CLAMSTED & PERRY
Consulting Engineers, Inc.

Water Booster Station

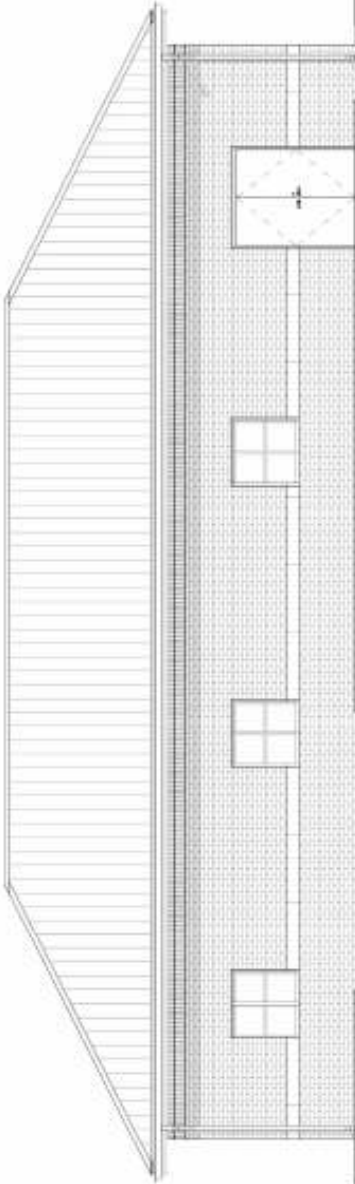
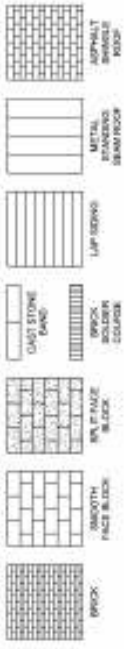


Site Plan

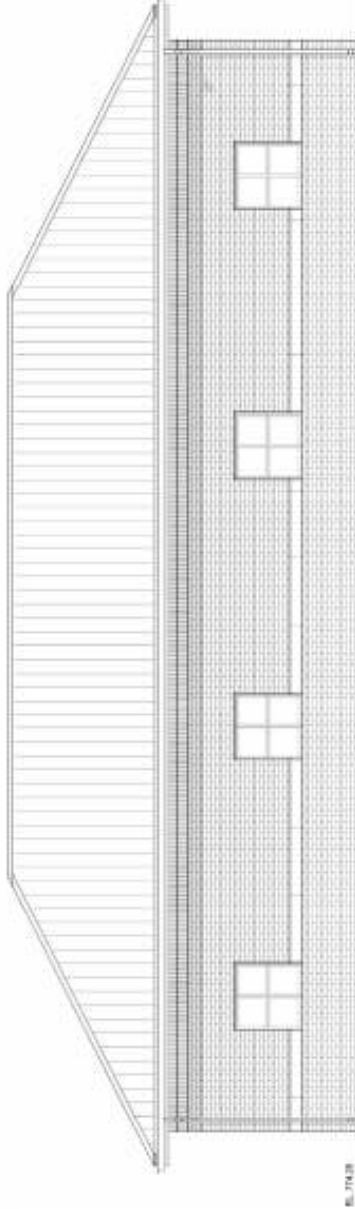


Water Booster Station Elevations

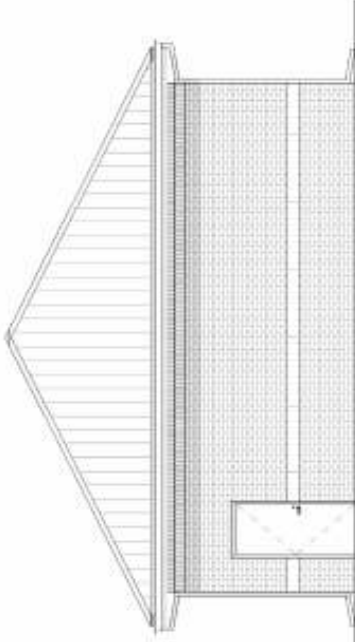
MATERIAL LEGEND



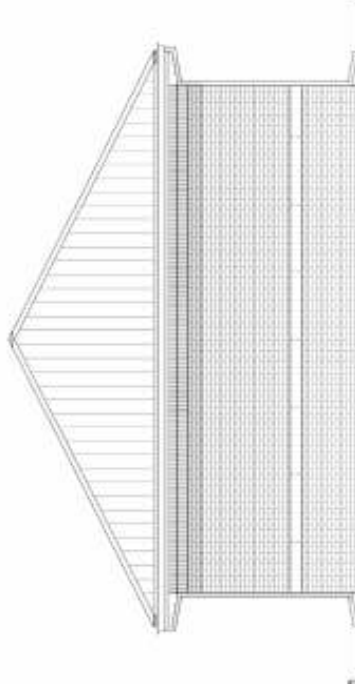
NORTH ELEVATION



SOUTH ELEVATION
SCALE 1/4" = 1'-0"



EAST ELEVATION



WEST ELEVATION
SCALE 1/4" = 1'-0"

What to Expect During Construction



NOISE



HEAVY
EQUIPMENT



TRAFFIC
CONTROL



LARGE
EXCAVATIONS

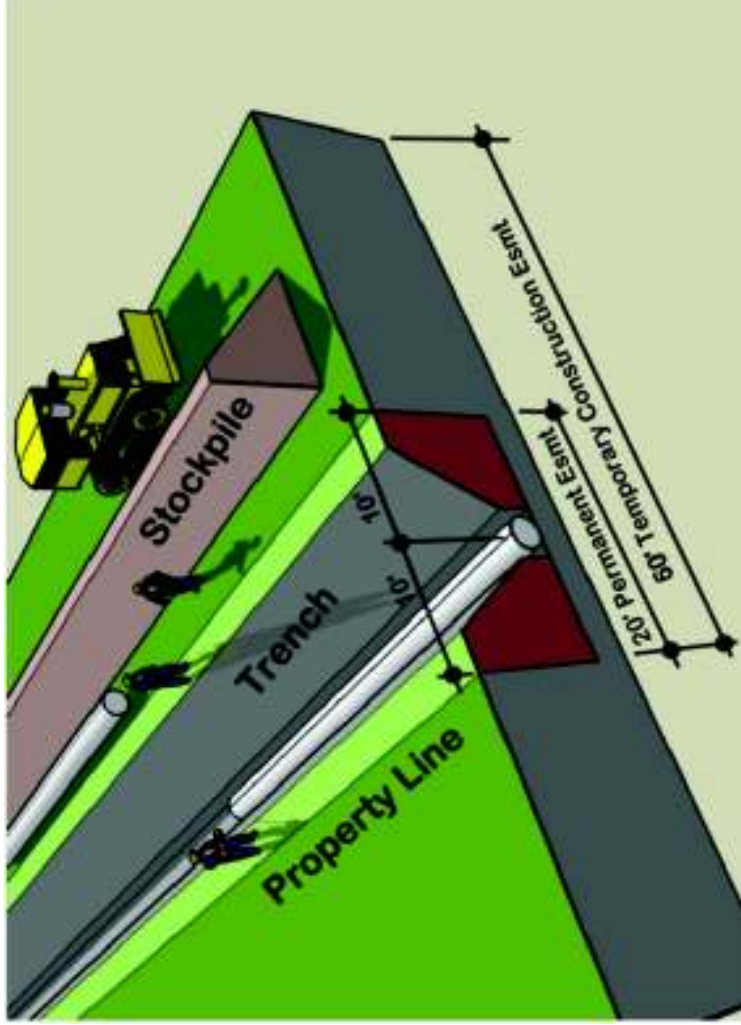


ROAD
CLOSURES

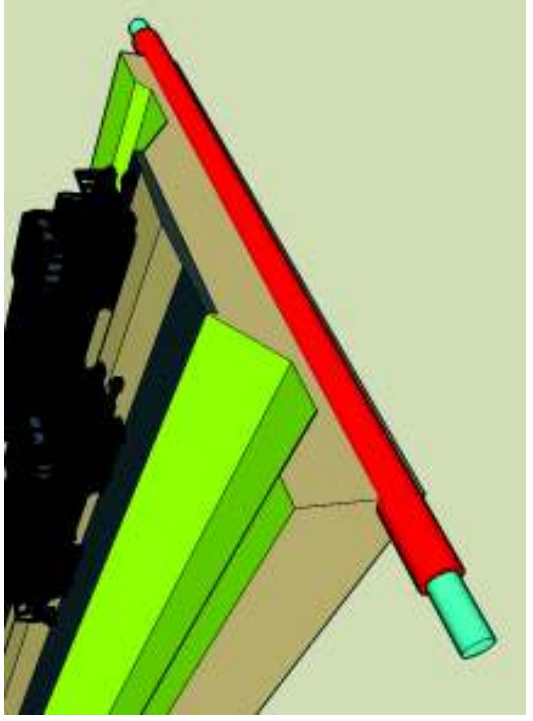


SIDEWALK AND
TRAIL CLOSURES

Trenching of Water Main

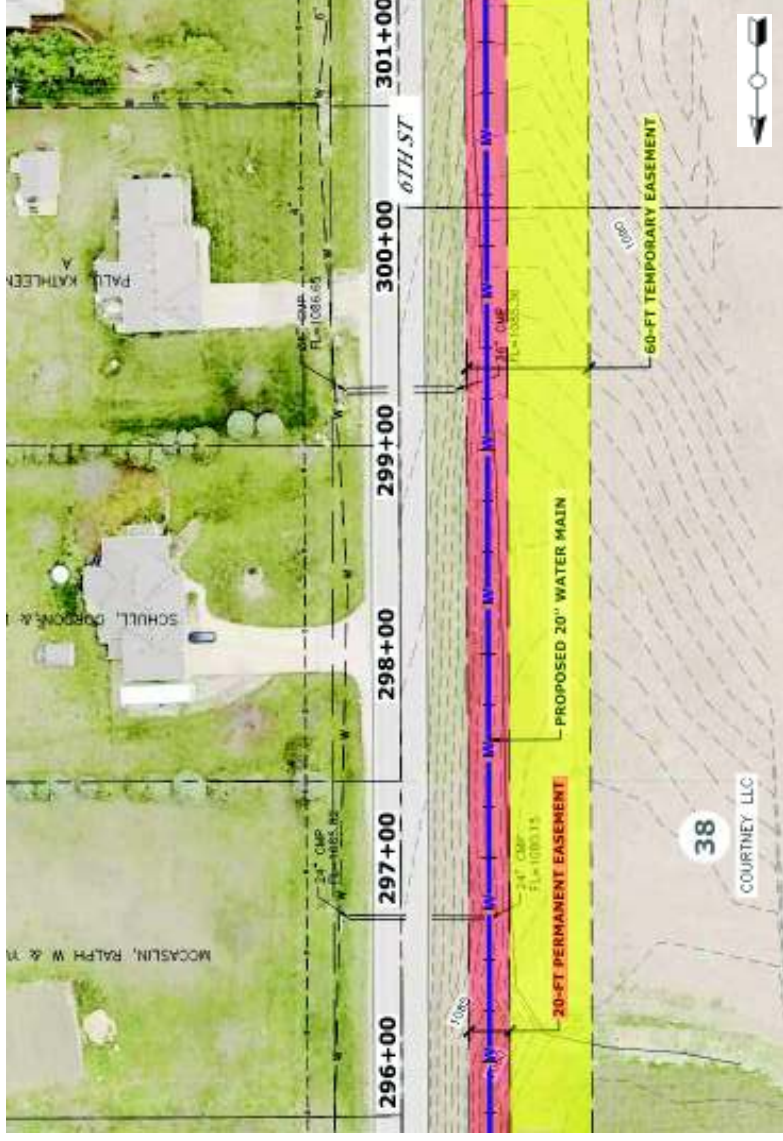


Trenchless Construction



Easement Needs

- Temporary easements
 - 52 parcels
 - 32 property owners
- Permanent water main easements
 - 29 parcels
 - 14 property owners
- Co-locate with existing Cass County Rural water easement



Midwest Right of Way Services

- Our role
 - Title Reports are requested
 - Appraisal Reports are completed by a certified, State approved appraiser
 - The City will review the appraisal reports
 - A written offer for no less than the appraised amount
 - Good faith negotiations
 - Settlement reached, signed documents sent to the City for processing and payment
- Please contact us with any questions



Opinion of Probable Construction Cost

- \$23,500,000 construction cost
- Funding:
 - 90% FEMA
 - 5% NEMA
 - 5% City of Plattsmouth



Next Steps and Schedule

- Final design phase
- Bid packages:
 - Contract 1 – Clearing & Grading
 - Contract 2 – Water Booster Station
 - Contract 3 – Water Transmission Main
- Easement acquisition phase
- Permitting phase
- Bidding phase
- Construction phase



Schedule

Timeline	Deliverable
January 2024	30% Design Approved
October 2024	60% Design Approved
November 4, 2024	Public Open House
January 2025	Clearing and Grading Begins
June 2025	Water Main Construction Begins
March 2026	Construction Begins along Avenue B
June 2026	Water Main Operational (1-year)
June 2027	Final Completion



Questions and Answers





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ASSOCIATES[®]

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