



City of Aurora

# Stormwater Master Plan

Presentation to City Council | Aurora, MO

AM

ALLGEIER, MARTIN and ASSOCIATES, INC.

Consulting Engineers

Joplin, Kansas City, Springfield, and Rolla



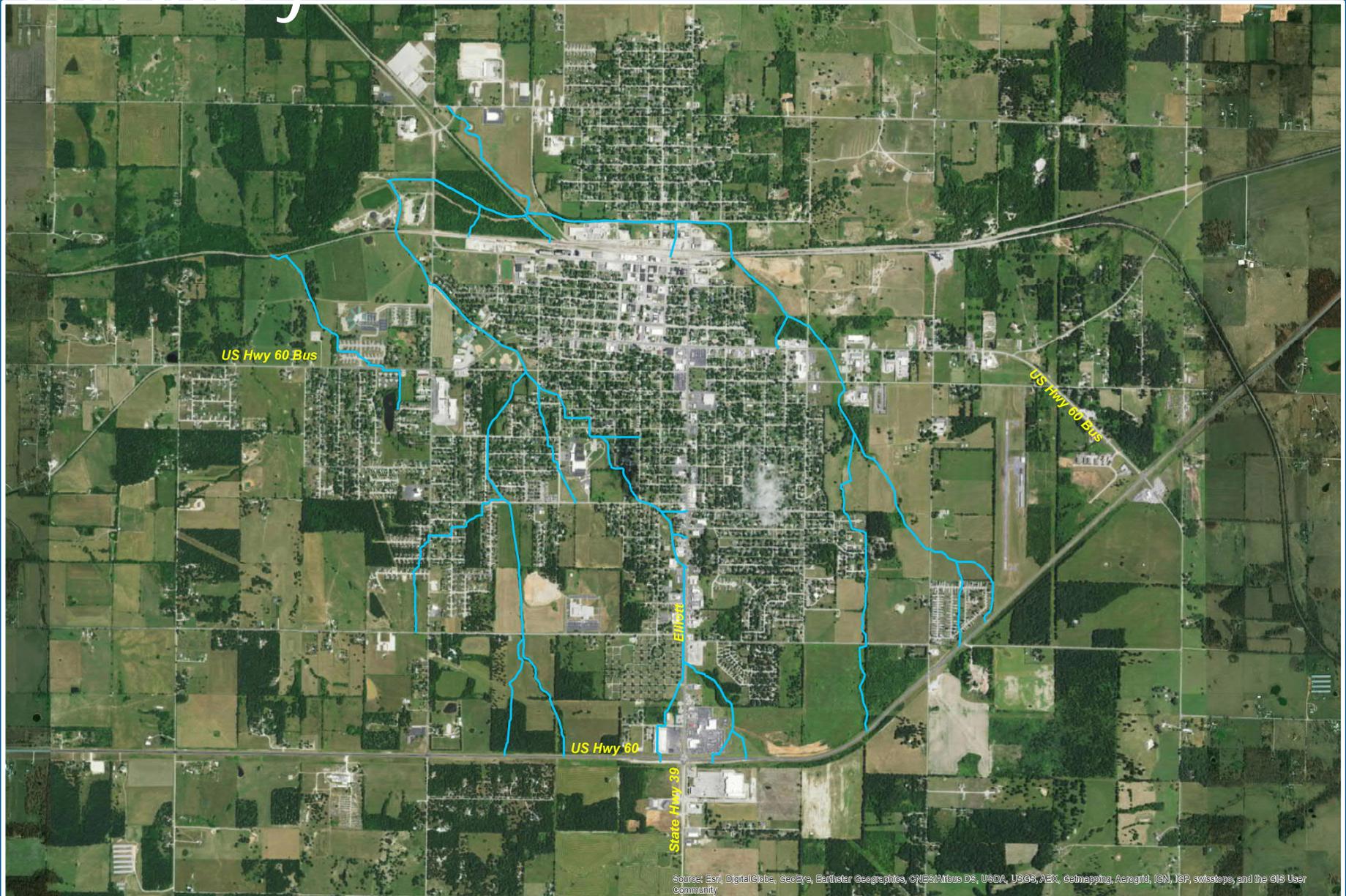
# PURPOSE

To provide the City with a comprehensive planning document that provides basic information and guidance necessary for capital improvements to the municipal storm drainage system.

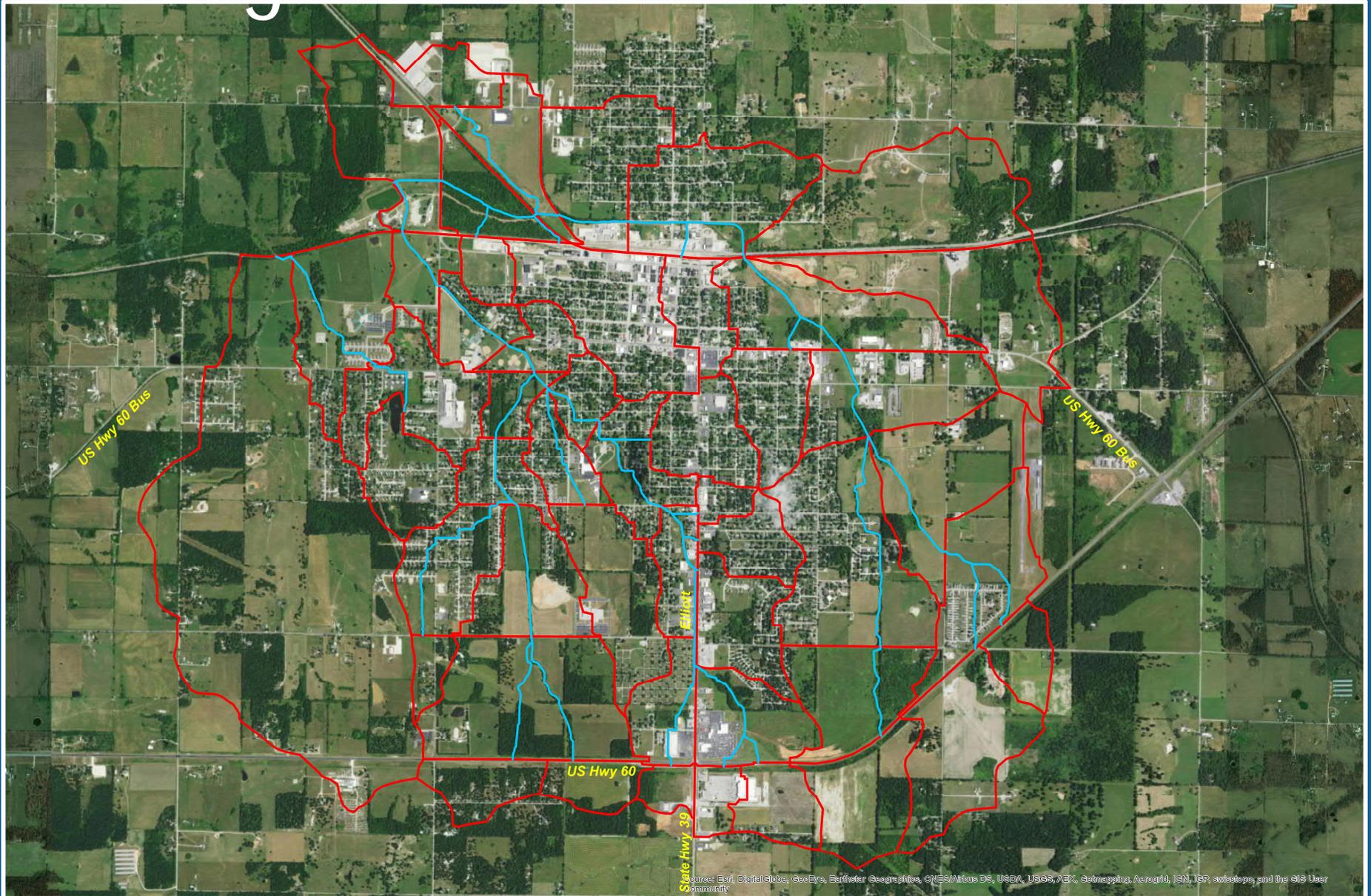


- Identify Problem and Flood Prone Areas
- Provides Recommendations for Sizes of Stormwater Facilities
- Establishes Costs for Recommendations
- Allows the Owner to Prioritize and Establish a Budget

# Tributary



# Drainage Basin



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, GeoMapping, AeroGRID, IGN, JEP, swisstopo, and the GIS User Community

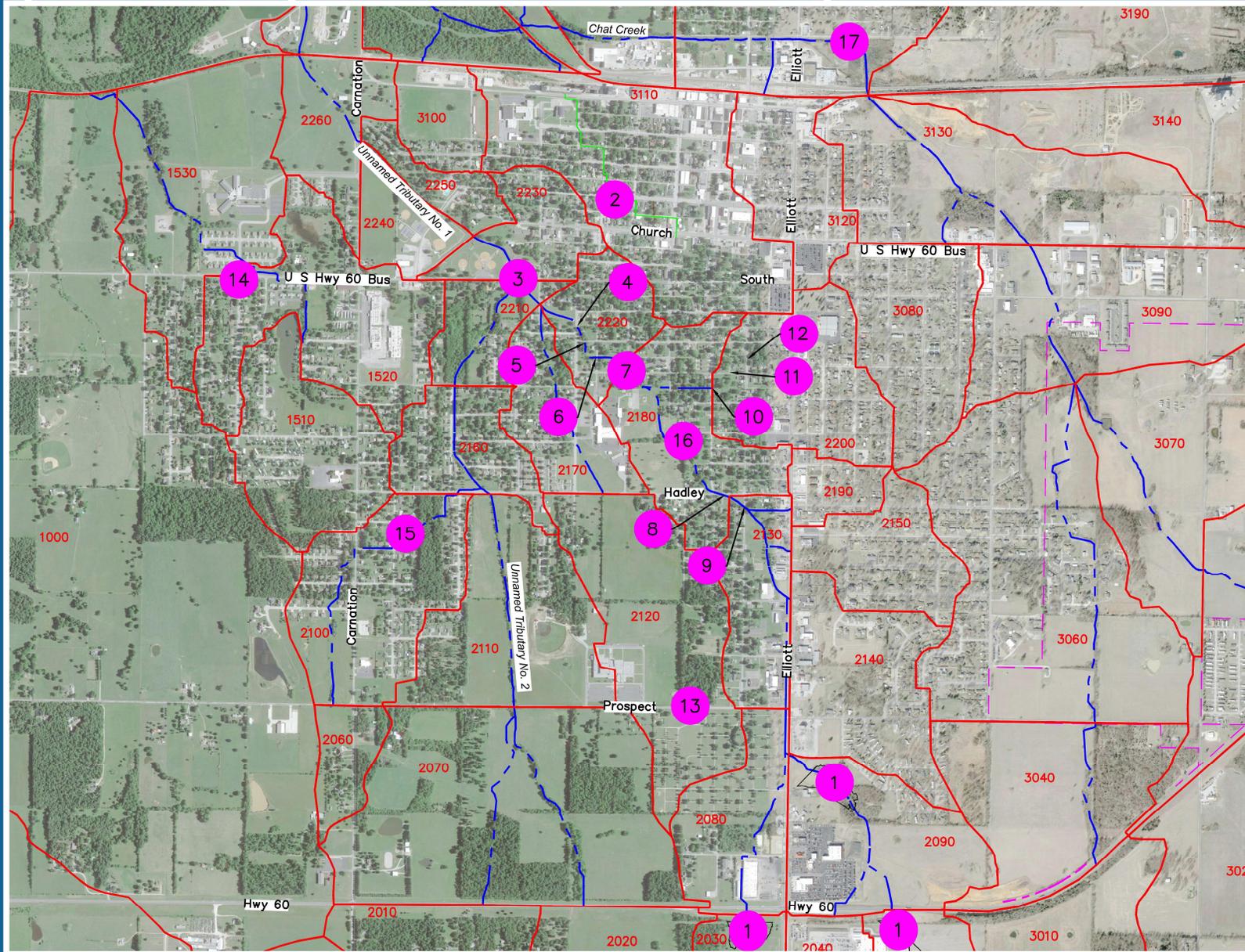
# Structural Identification



# Identifying Capital Improvement Projects

- Site Investigations
- Public Meeting Comments
- City Staff Experience
- Watershed Impact

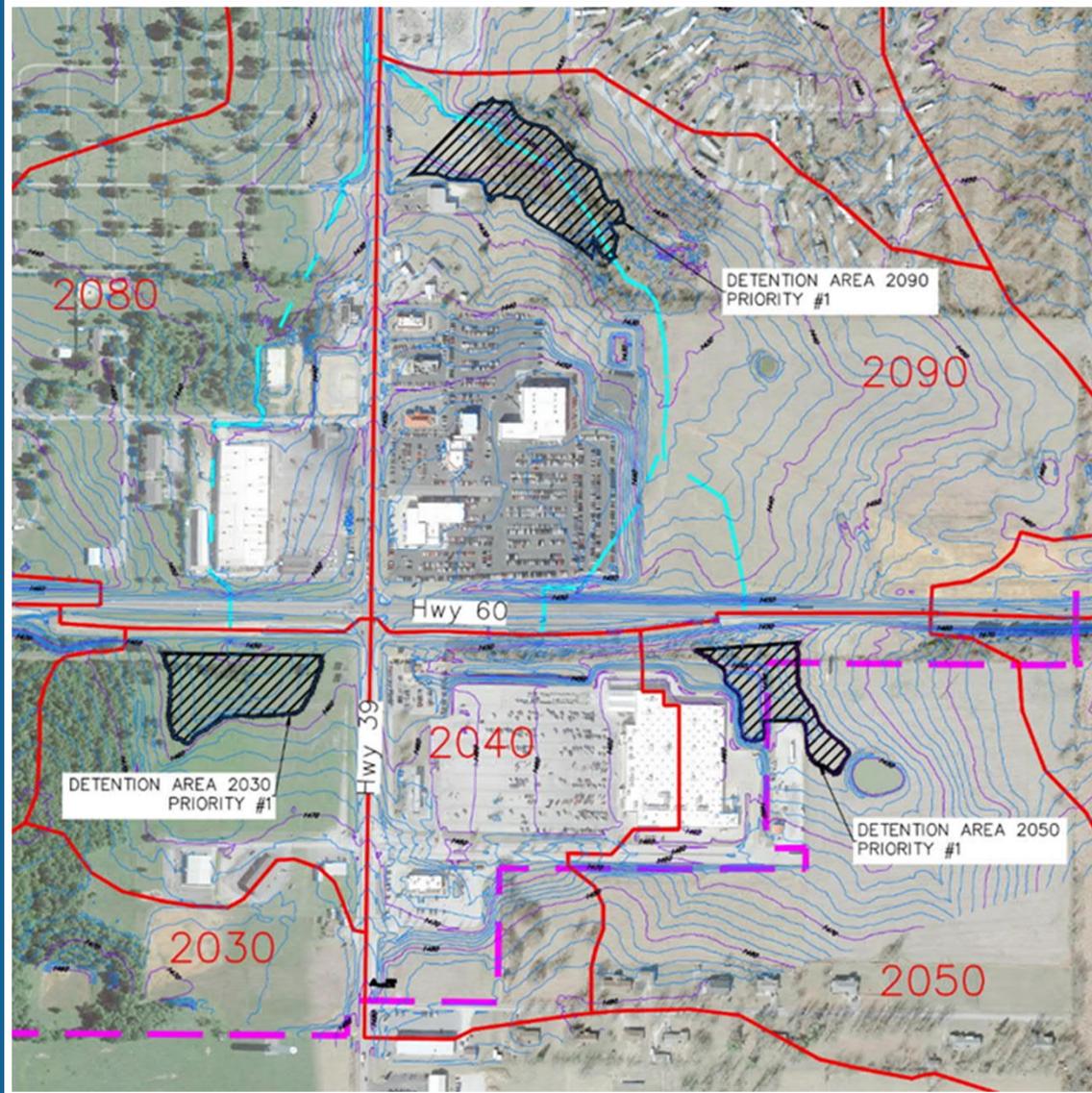
# Capital Improvement Project Locations



# Capital Improvement Project Recommendation Cost Summary

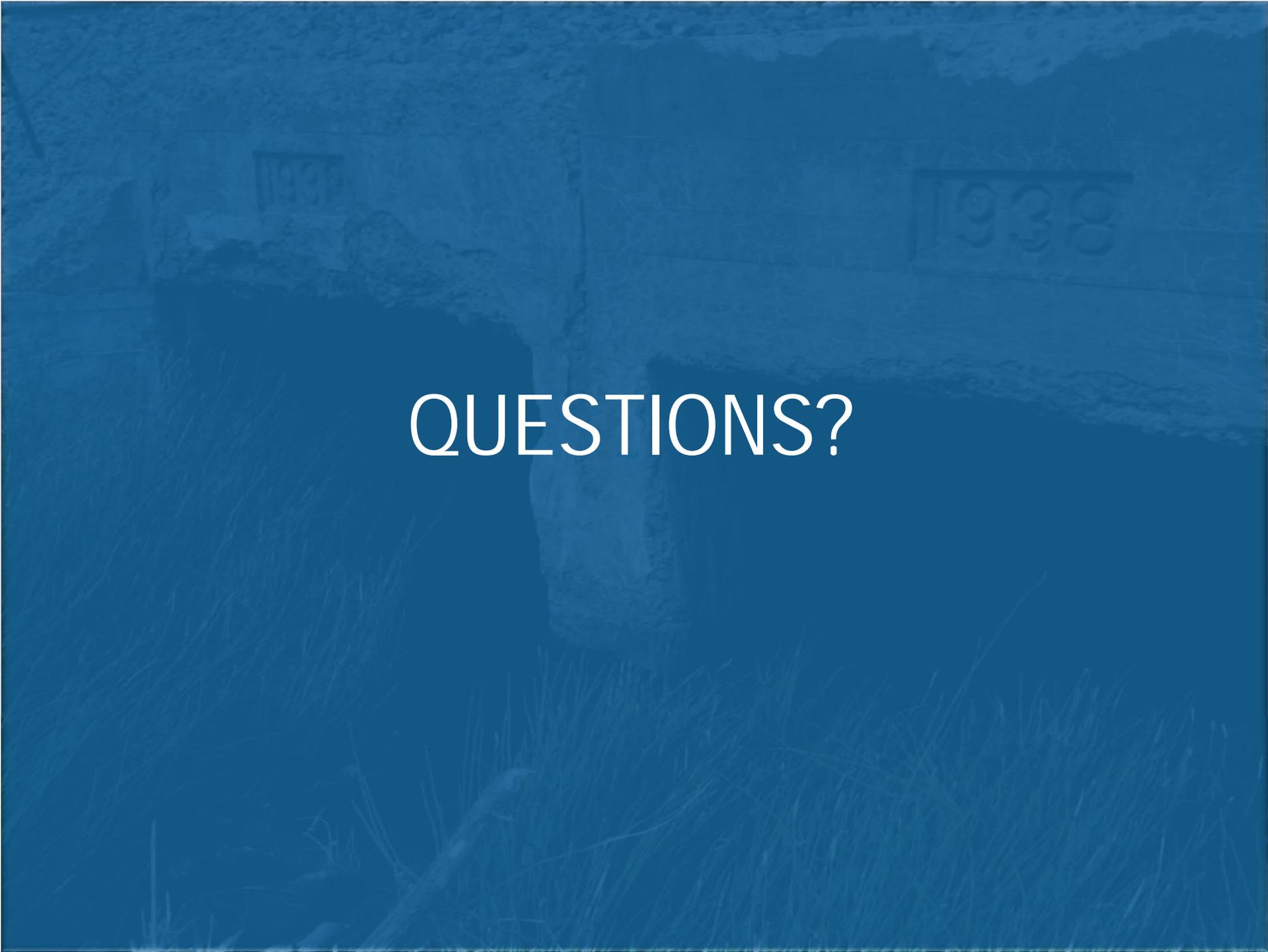
Priority Number	Structure Number	Location	2018 Cost Estimate	2023 Cost Estimate	2028 Cost Estimate	Existing Capacity (yr.)	Proposed Design Capacity (yr.)
1	N/A	Regional Detention in Subbasins 2030, 2050, and 2090	\$2,401,000	\$2,784,000	\$3,228,000	N/A	N/A
2	311020	Box Culvert/Sidewalk Network Between W. Locust St. and E. South St.	\$3,001,000	\$3,479,000	\$4,034,000	<2	5
3	221010	E. South St. at White Park	\$284,000	\$330,000	\$383,000	2	100
4	222010, 222015, 222020	S. Lincoln Ave.	\$543,000	\$630,000	\$731,000	2	25
5	222030, 222040	W. St. Louis St.	\$247,000	\$287,000	\$333,000	2	25
6	222050, 222060	S. Harrison Ave	\$336,000	\$390,000	\$453,000	2	25
7	218010, 218020	E. Springfield St.	\$503,000	\$584,000	\$678,000	2	25
8	213010	E. Hadley St.	\$821,000	\$952,000	\$1,104,000	2	25
9	213020	S. Jefferson Ave.	\$257,000	\$298,000	\$346,000	2	25
10	220010	S. Madison Ave. Between Springfield and Pearl	\$138,000	\$160,000	\$186,000	5	25
11	220020	E. Springfield St. Between Madison and Jefferson	\$159,000	\$185,000	\$215,000	2	25
12	220025	S. Jefferson Ave. Between E. Springfield St. and E. St Louis St.	\$134,000	\$156,000	\$181,000	2	25
13	212020	E. Prospect, Between High School and Cemetery	\$133,000	\$155,000	\$180,000	<2	25
14	152025	Terrace Dr. and Business 60	\$399,000	\$463,000	\$537,000	<2	25
15	N/A	Channel Improvements Btwn W. Hadley St. and S. Tyler Ave. in the 2100 Subbasin	\$149,000	\$173,000	\$201,000	<2	25
16	N/A	Channel Improvements Between E. Springfield St. and E. Hadley St.	\$50,000	\$58,000	\$68,000	N/A	N/A
17	N/A	Chat Creek Flood Plain Remap	\$150,000	\$174,000	\$202,000	N/A	N/A
		<b>TOTAL</b>	<b>\$9,705,000</b>	<b>\$11,258,000</b>	<b>\$13,060,000</b>		

# Priority #1 – Regional Detention



**Table 3 - Comparison of Existing Structure Capacity with and without Regional Detention**

Structure ID	Storm CAP, Existing Conditions	Storm CAP, Regional Detention
208010	10-Yr	50-Yr
208020	5-Yr	10-Yr
208025	2-Yr	2-Yr
209010	10-Yr	100-Yr
213010	2-Yr	2-Yr
213020	2-Yr	2-Yr
213030	5-Yr	25-Yr
213040	5-Yr	25-Yr
213050	10-Yr	50-Yr
213060	10-Yr	100-Yr
213070	5-Yr	25-Yr
213080	10-Yr	100-Yr



QUESTIONS?