

# Flood Study Report Bayou Meto Jacksonville, Arkansas

August 1, 2019

The objective of this study is to analyze the hydraulic conditions of the existing property and compare those conditions to the proposed modifications for the Dupree Farms Development. The results of this analysis will then be reviewed to determine the effects on Bayou Meto and to establish whether the proposed improvements comply with the Federal Emergency Management Agency (FEMA) regulatory requirements and the City of Jacksonville requirements.

BA Engineering has completed the hydraulic analysis in conjunction with Bond Engineering for the Dupree Family, which consists of the following:

**Location:**

The Legacy Centers of Dupree Farms is a proposed Commercial Mixed-Use Development. The development site is approximately 1,400-acres known as “Legacy Centers of Dupree Farms”. The development is located in the City of Jacksonville at a major transportation crossroads of US highway 67/167 and the I-440 North Belt Freeway connector intersect.

**HYDRAULICS METHODOLOGY**

In reference to the current Pulaski County, Arkansas and incorporated areas Flood Insurance Study (FIS), dated July 6, 2015, flood profiles for Bayou Meto were performed by Pulaski County under Cooperating Technical Partner (CTP) agreement with FEMA and completed in September 2009. Flood Profiles for Bayou Meto are contained within the FEMA FIS and on Panels 06P - 09P [refer to Attachments]. For the City of Jacksonville, Bayou Meto, which flows southeast through the southern portion of the City, is a principal stream in the City.

<b>Summary of Discharges</b>					
	DRAINAGE				
	AREA	10%	2%	1%	0.2%
FLOODING SOURCE AND LOCATION	(sq. miles)	Annual Chance	Annual Chance	Annual Chance	Annual Chance
<b>Bayou Meto</b>					
Approximately 260 ft downstream from State Highway 161	127.45	20,775	37,975	39,260	44,300
Approximately 200 ft downstream from Jacksonville Cutoff Rd	70.15	12,400	22,470	23,100	26,500
At River Mile 136.58	67.3	9,320	12,350	13,660	17,090

a. Modeling Considerations

The backwater method applied to the steady-state flow analysis is dependent on various input parameters. All input provided for the hydraulic modeling for Bayou Meto was based on the FEMA supplied models. For each section, the water surface elevations were compared for existing conditions and proposed conditions for the development.

b. Expansion and Contraction Coefficients

Energy losses occur where the flow expands or contracts, such as at bridge or culvert structures. All coefficients remained consistent with the FEMA supplied model.

c. Structure/Road Crossing Modeling

Numerical methods employable to estimate the hydraulic losses through bridge and culvert structures include a number of empirical relationships, including energy equations, momentum equations, Yarnell's equation, and pressure/weir equations. In situations where multiple bridge/culvert openings exist the Multiple Opening Analysis in Hydrologic Engineering Center (HEC) River Analysis System (RAS) remained consistent with the FEMA supplied model.

d. Ineffective Flow Areas

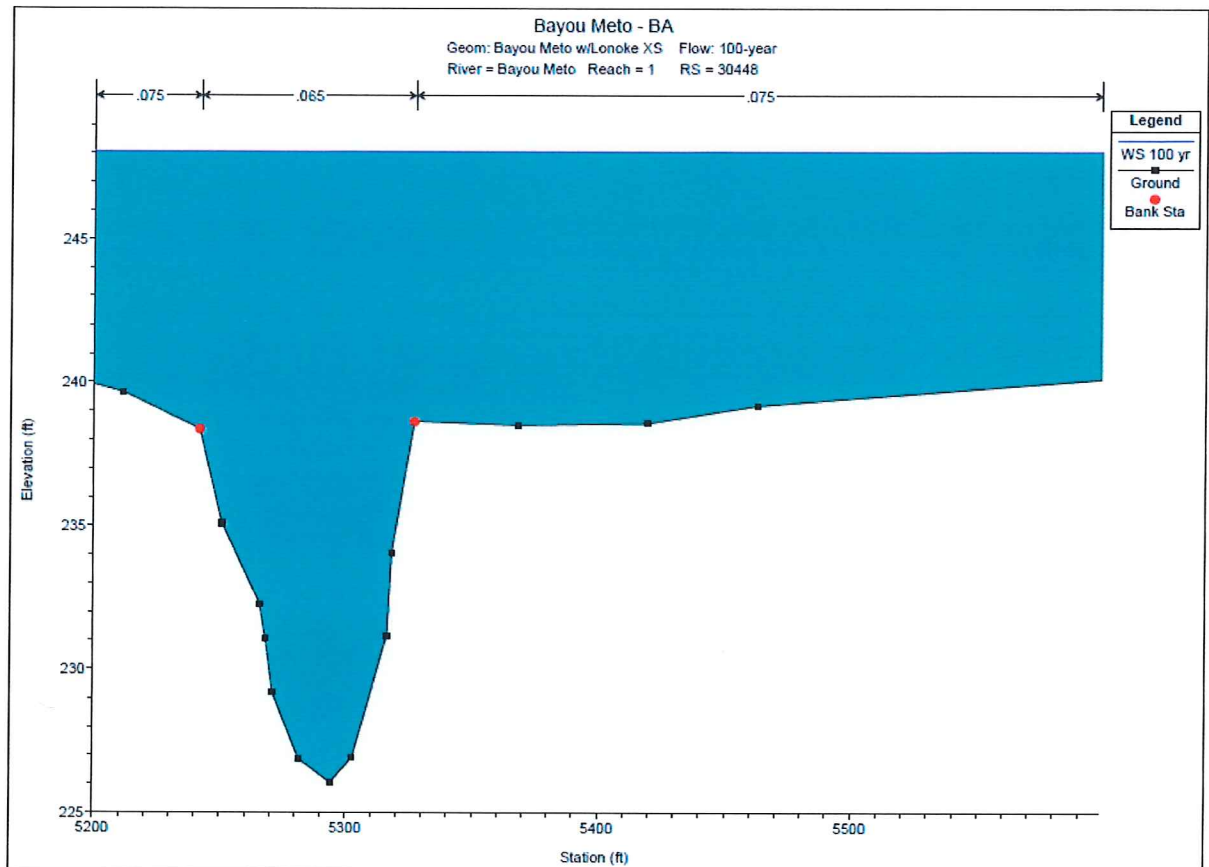
Based on a review of the floodplain geometry, ineffective flow areas were established. Ineffective flow areas were placed in areas of the ground geometry which were either completely disconnected from the stream conveyance or would not effectively convey any of the flow until a certain elevation was reached. Ineffective flow areas were also placed at the upstream and downstream sections of the bridge/culvert crossings to effectively model the typical 1:1 contraction upstream and 4:1 expansion downstream of the structures. All ineffective flow areas in the HEC-RAS remained consistent with the FEMA supplied model.



e. Cross Section Development

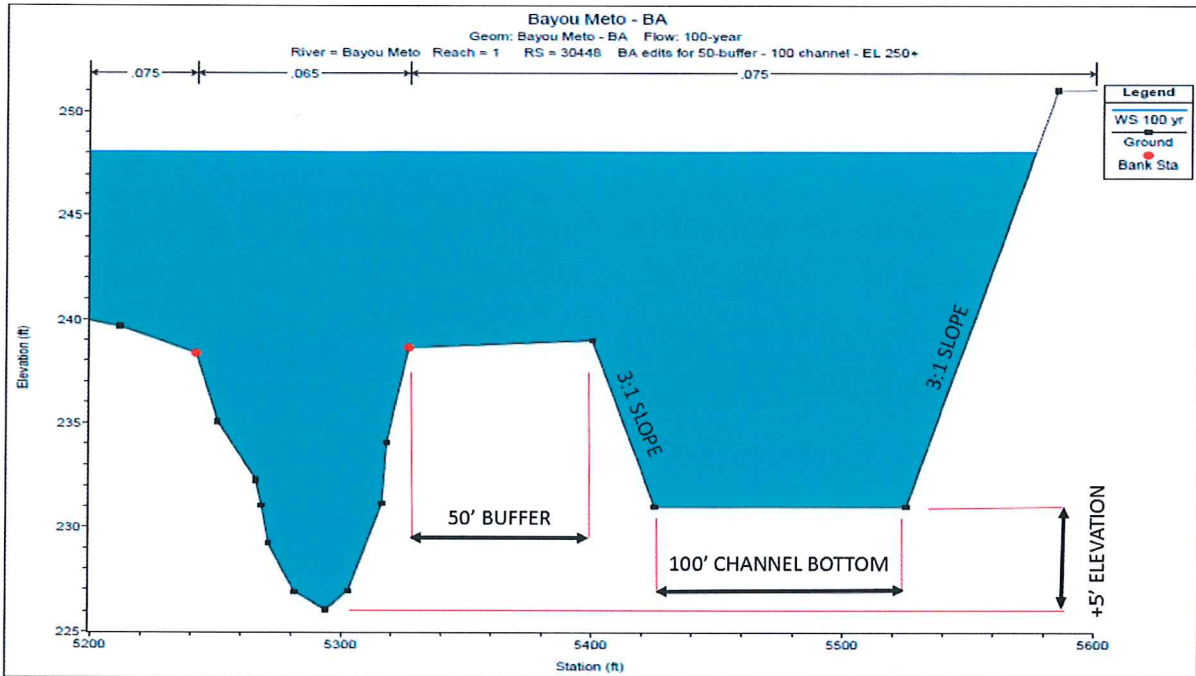
Existing Conditions

Hydraulic analysis was conducted using HEC-RAS. The cross-section diagram shows the existing conditions for Bayou Meto through the development reach.



### Proposed Conditions

The proposed cross-section diagram shows the channel improvements. These improvements consist of a 50-ft buffer region of which all native materials are to remain in place. Followed by channel excavation for a 100-ft bottom width with 3:1 side slopes for maintenance purposes. All excavated materials will be placed on the development site to raise the property above the FEMA designated 500-year (0.2%) flood elevation.

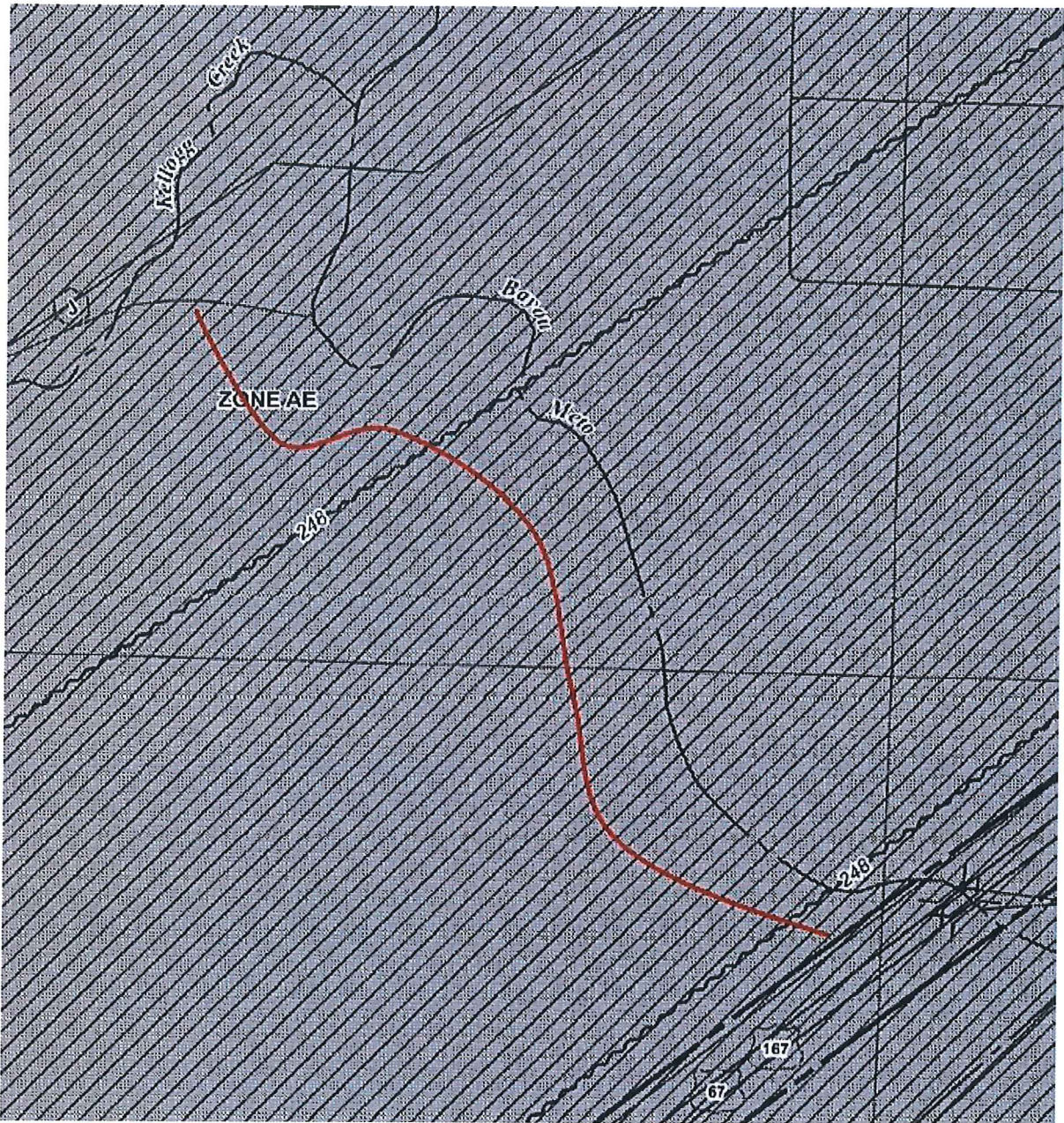


### **Conclusions:**

The overall effect for the proposed channel improvements for the Legacy Centers of Dupree Farms will render a new floodplain/floodway within 250-ft southeast from the centerline of Bayou Meto channel. These improvements also would consist of a "no-rise certification" as part of the FEMA Letter of Map Revision (LOMR) process and permit the development as proposed to proceed with base floor elevations above the 500-year (0.2%) flood frequency event. As noted below, the "red-line" would be the approximate south-western boundary of the Floodplain/Floodway through the development.

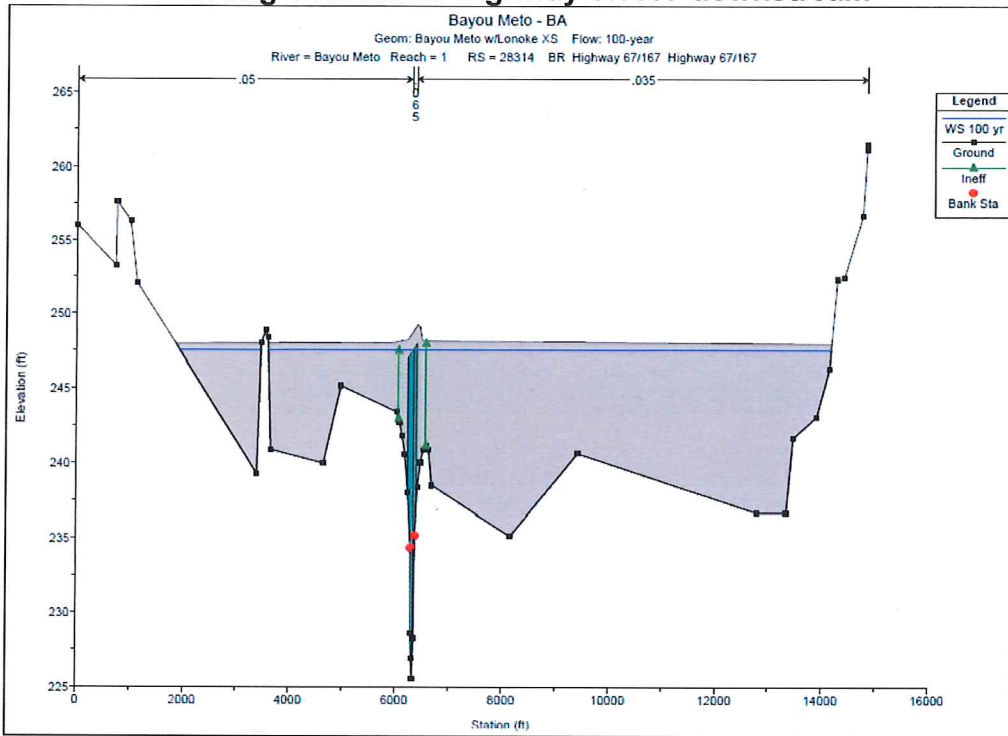
Based on and limited to the data and analysis and their applicability presented herein, the development does not appear to endanger life or property, public or private. Included with the FEMA analysis, a United States Army Corps of Engineers (USACE), Section 404 of the Clean Water Act permit is required for the discharge of dredged or fill material into waters of the US.



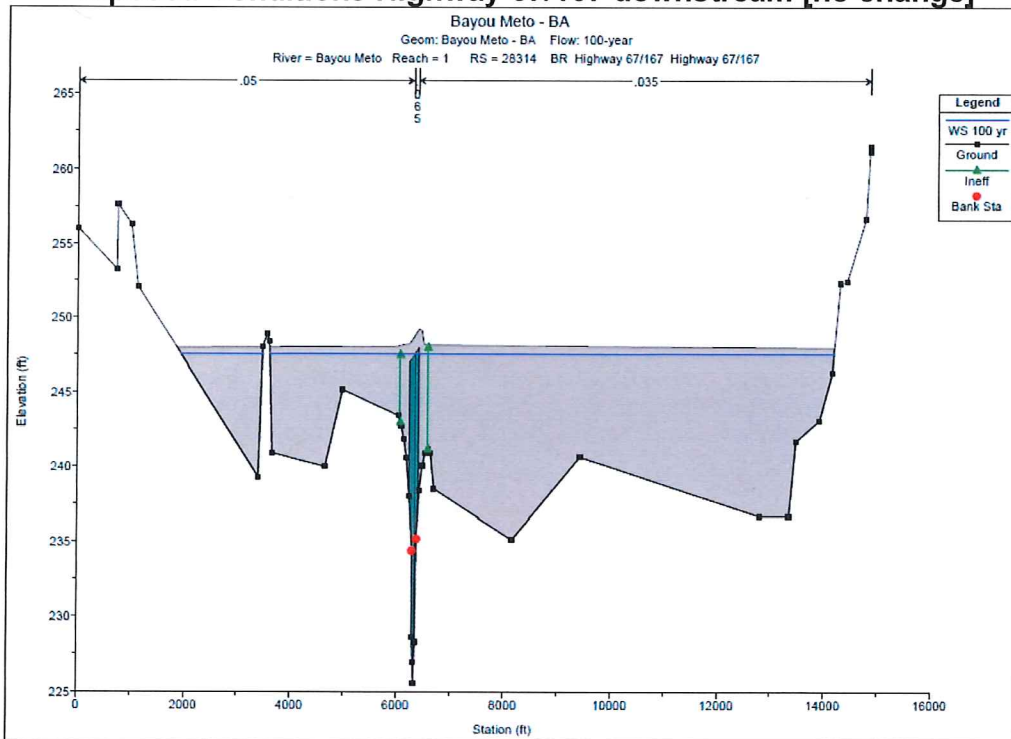




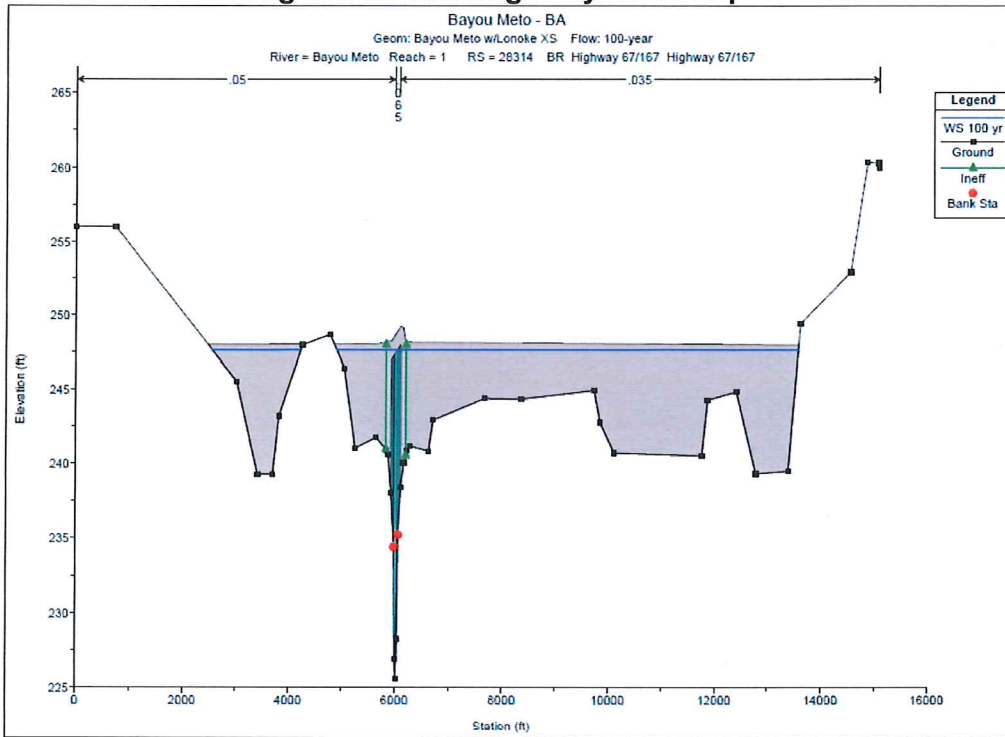
## Existing Conditions Highway 67/167 downstream



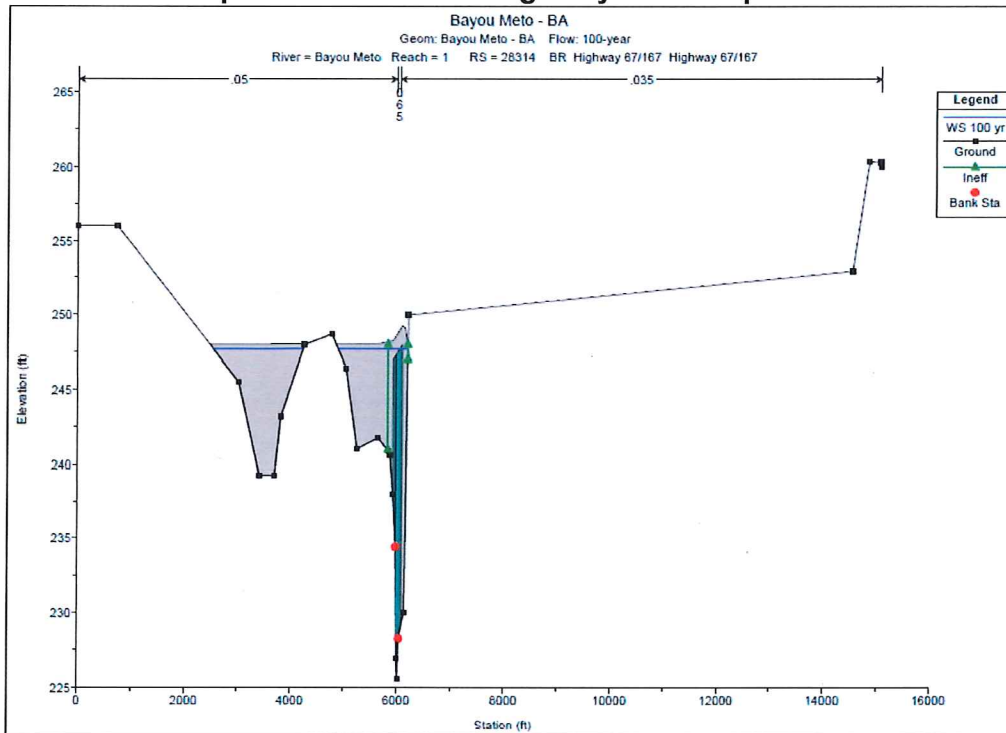
## Proposed Conditions Highway 67/167 downstream [no change]



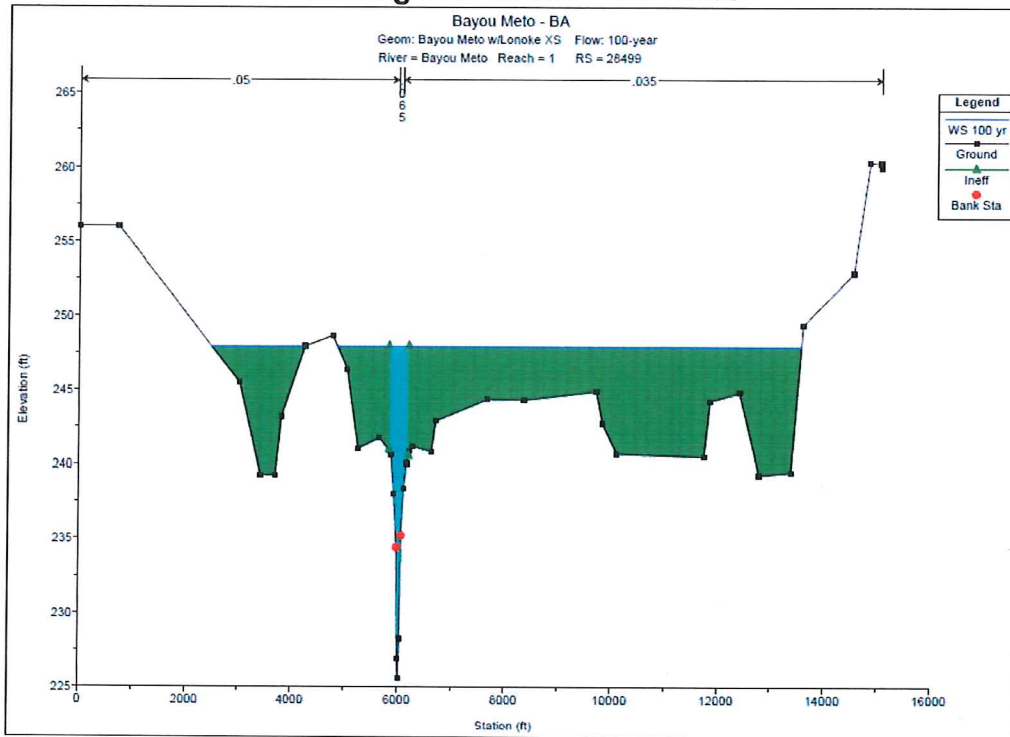
### Existing Conditions Highway 67/167 upstream



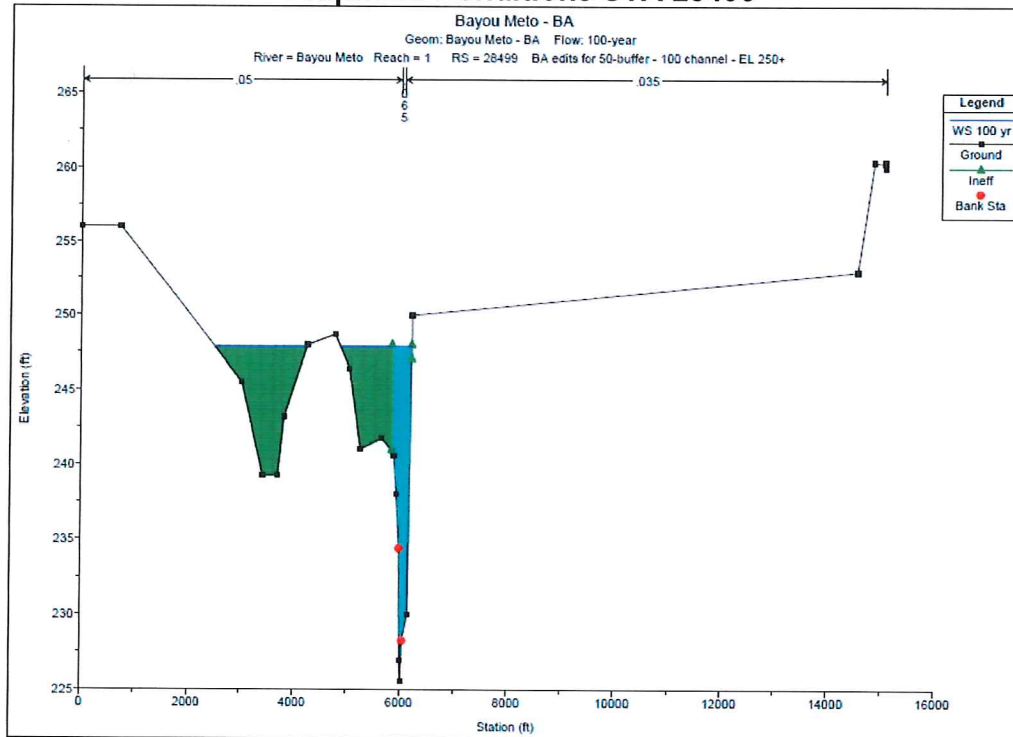
### Proposed Conditions Highway 67/167 upstream



### Existing Conditions STA 28499

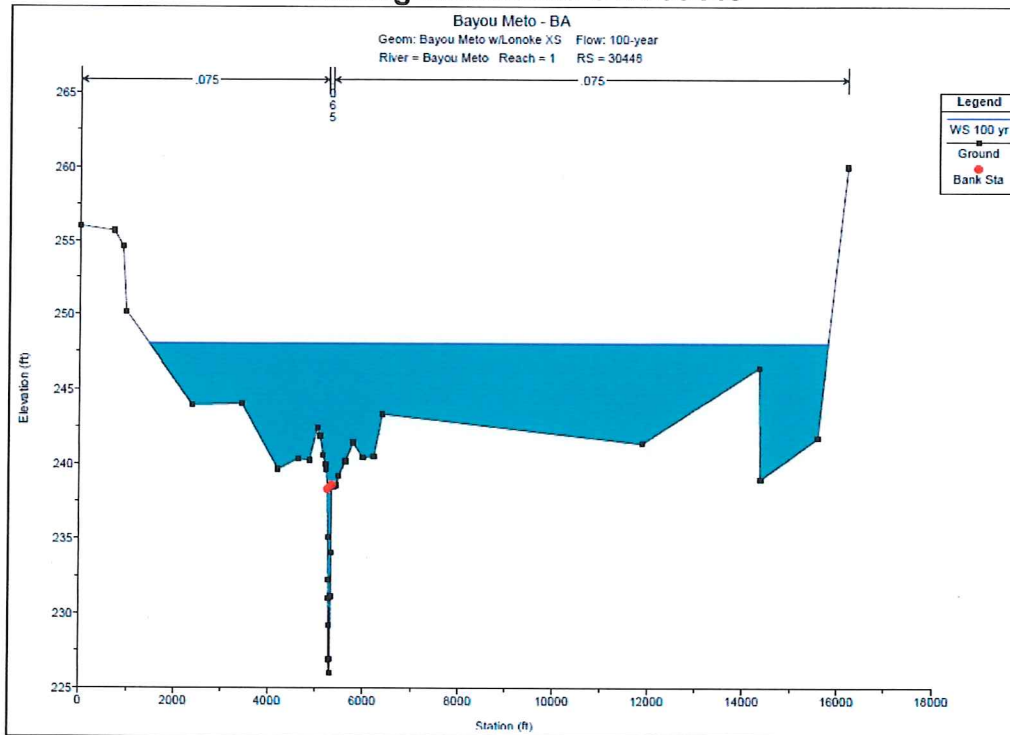


### Proposed Conditions STA 28499

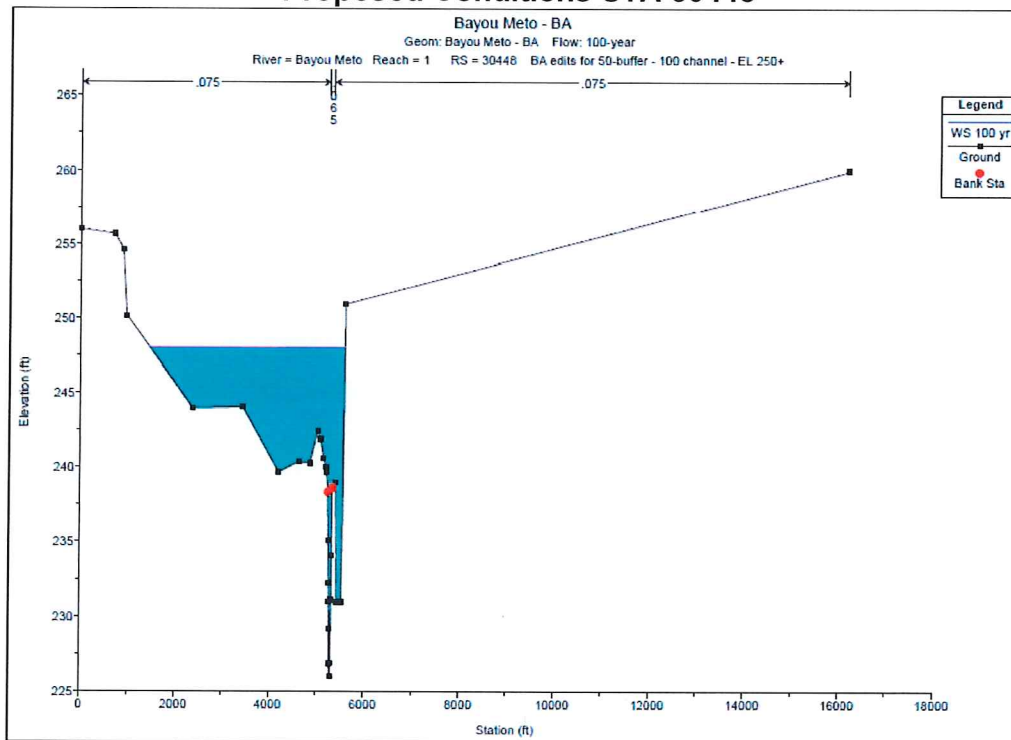




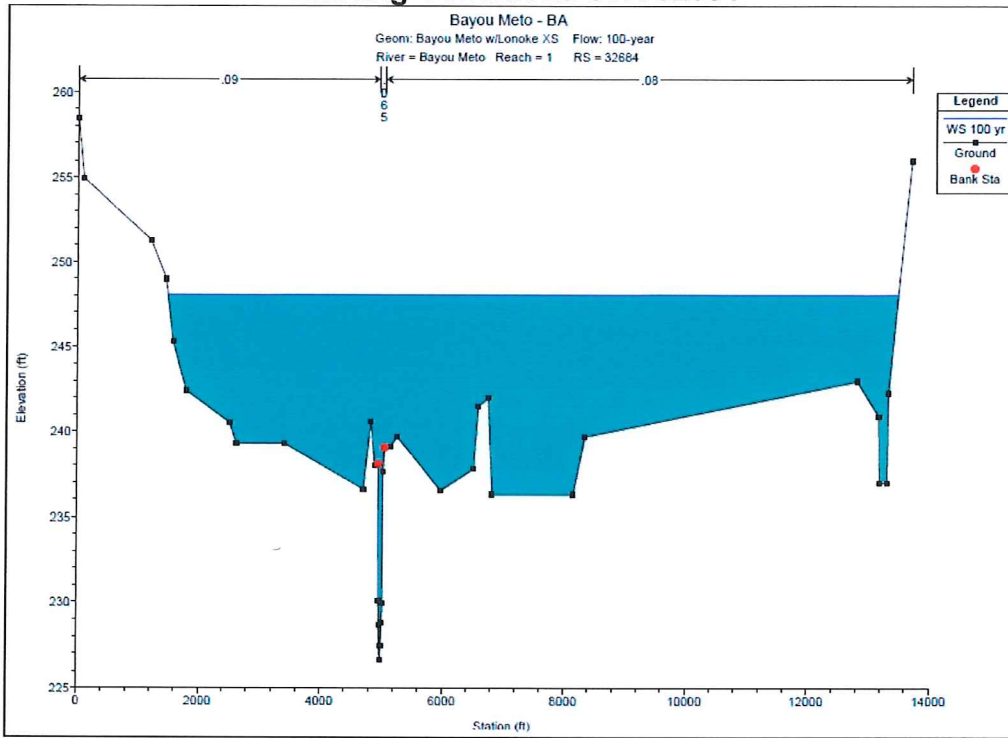
### Existing Conditions STA 30448



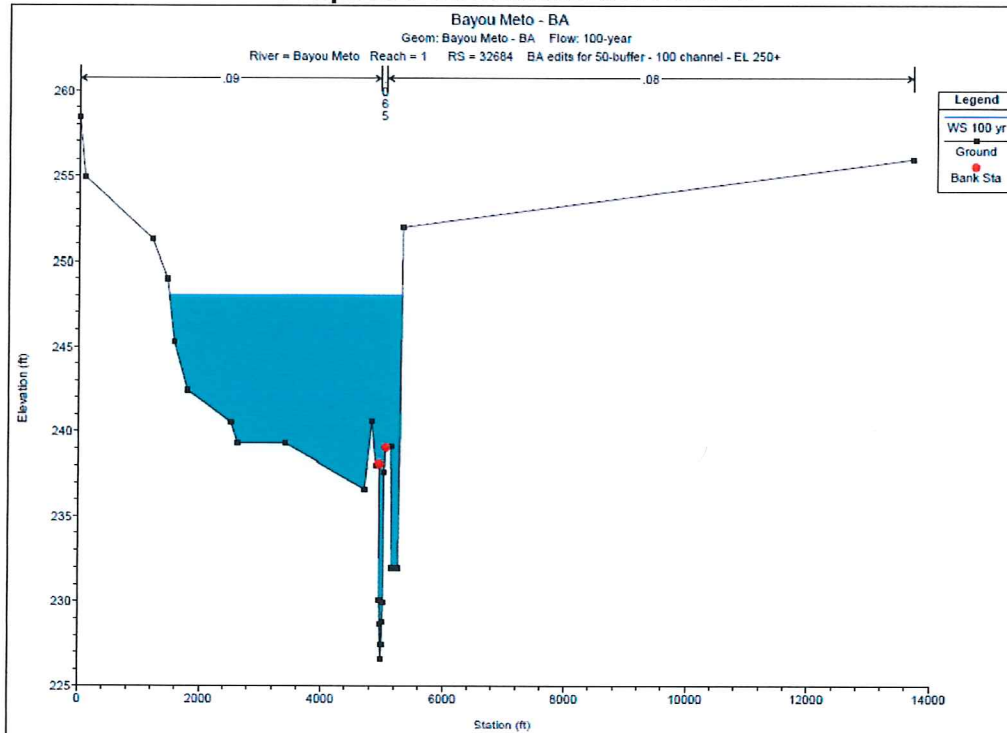
### Proposed Conditions STA 30448



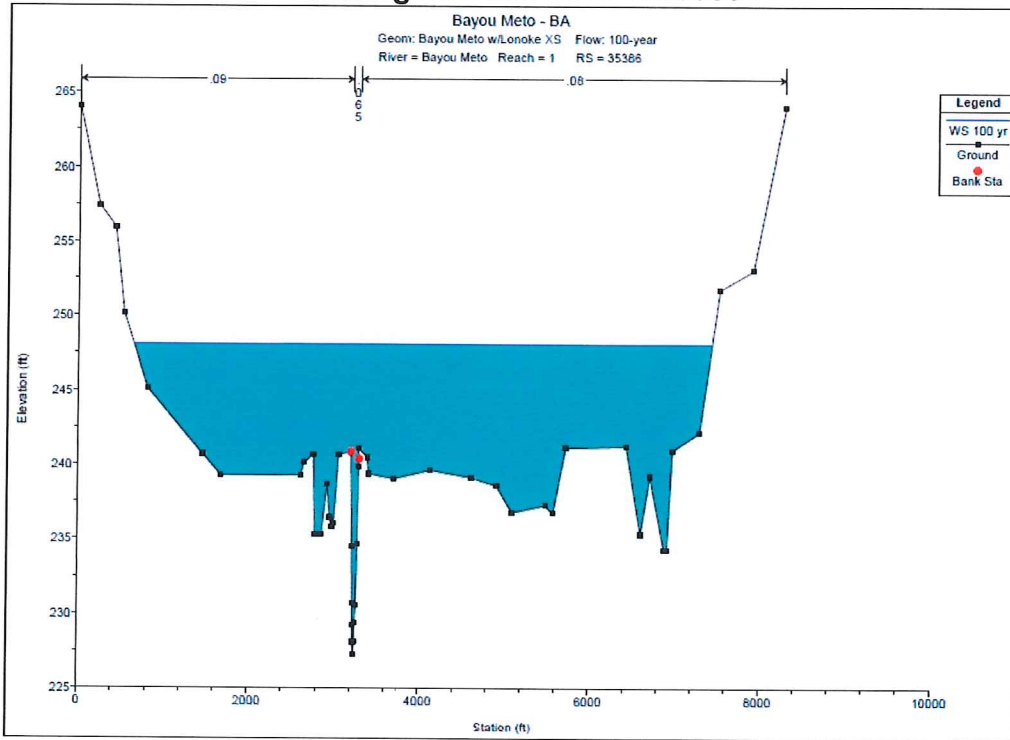
### Existing Conditions STA 32684



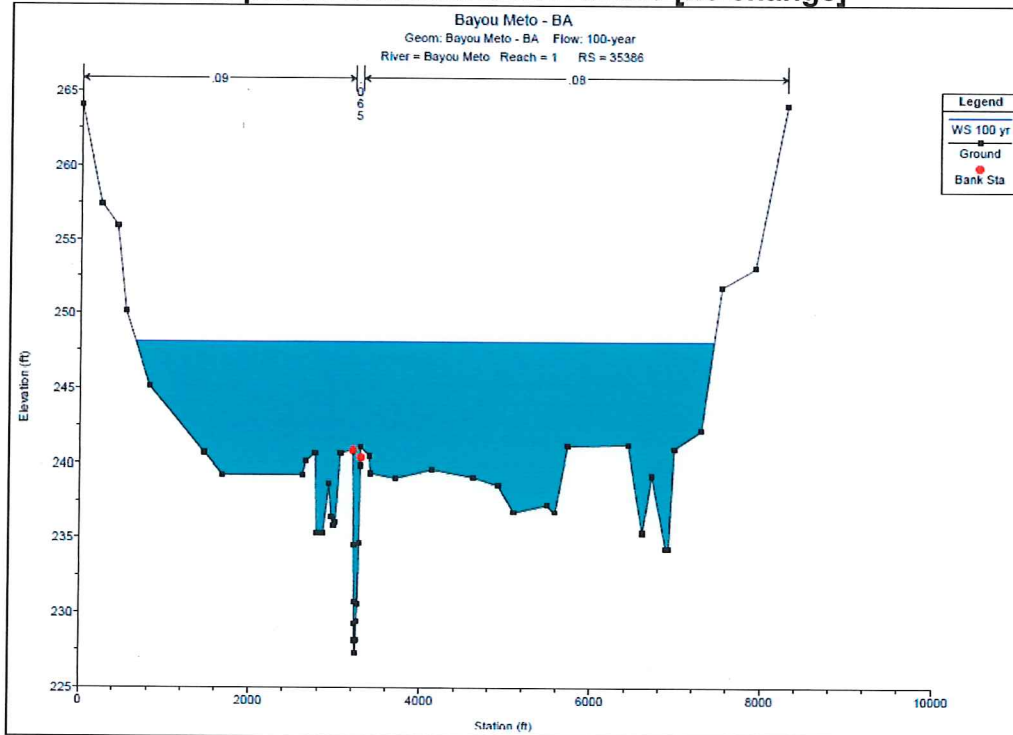
### Proposed Conditions STA 32648



### Existing Conditions STA 35386



### Proposed Conditions STA 35386 [no change]





## APPENDIX

- HEC-RAS Summary Results Existing Conditions vs Proposed Conditions
- Proposed FEMA FIS Southwestern Floodplain/Floodway Limits Map
- Typical Existing Conditions Section
- Typical Proposed Conditions Section
- HEC-RAS Summary Results Existing Conditions
- HEC-RAS Profile Results Existing Conditions
- HEC-RAS Cross-Section Results Existing Conditions
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- Current FEMA FIS Stream and Cross-Section Layout, Bayou Meto
- Current FEMA FIS Map 05119C0356G (July 6, 2015)
- Current FEMA FIS Map 05119C0357G (July 6, 2015)
- Current FEMA FIS Flood Profiles, Bayou Meto panels 06P-09P
- The Legacy Centers of Dupree Farms

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FEMA FIS					FEMA FIS vs BA Design							
River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	W.S. Elev (ft)	BA Design River Sta	BA Design Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)		
77097	100 yr	17723	243.19	265.65	0.01	77097	100 yr	17723	243.19	265.66		
75578	100 yr	17723	242.6	265.64	0	75578	100 yr	17723	242.6	265.64		
75518	100 yr	17723	242.45	265.64	0	75518	100 yr	17723	242.45	265.64		
75483	Jim Hall Rd	Bridge			0	75483	Jim Hall Rd	Bridge				
75450	100 yr	17723	242.33	265.63	0	75450	100 yr	17723	242.33	265.63		
74750	100 yr	17723	241.51	265.63	0	74750	100 yr	17723	241.51	265.63		
71985	Co	100 yr	17723	239.27	265.55	0	71985	Co	100 yr	17723	239.27	265.55
71411	100 yr	17723	238.96	265.49	0	71411	100 yr	17723	238.96	265.49		
70774	100 yr	17723	238.7	265.46	0	70774	100 yr	17723	238.7	265.46		
70066	100 yr	17723	238.2	265.31	0	70066	100 yr	17723	238.2	265.31		
69947	100 yr	17723	238.09	265.02	0	69947	100 yr	17723	238.09	265.02		
69868	Tom Box Rd	Bridge			0	69868	Tom Box Rd	Bridge				
69779	100 yr	17723	238.09	264.89	0	69779	100 yr	17723	238.09	264.89		
69098	100 yr	17723	237.25	264.9	0	69098	100 yr	17723	237.25	264.9		
68739	100 yr	18001	236.93	264.89	0	68739	100 yr	18001	236.93	264.89		
68123	100 yr	18001	236.86	264.86	0	68123	100 yr	18001	236.86	264.86		
67060	100 yr	18001	236	264.84	0	67060	100 yr	18001	236	264.84		
66185	100 yr	18096	235.63	264.82	0	66185	100 yr	18096	235.63	264.82		
65425	100 yr	18096	235.32	264.81	0	65425	100 yr	18096	235.32	264.81		
64615	100 yr	18096	234.93	264.79	0	64615	100 yr	18096	234.93	264.79		
63083	100 yr	18096	234.21	264.31	0	63083	100 yr	18096	234.21	264.31		
61779	100 yr	18162	233.26	263.28	0	61779	100 yr	18162	233.26	263.28		
59744	100 yr	18162	231.81	261.75	0	59744	100 yr	18162	231.81	261.75		
58133	100 yr	18162	230.87	260.51	0	58133	100 yr	18162	230.87	260.51		
56744	100 yr	18162	230.13	259.7	0.01	56744	100 yr	18162	230.13	259.71		
55111	100 yr	18162	229.56	258.83	0	55111	100 yr	18162	229.56	258.83		
53637	100 yr	18162	229.22	257.36	0	53637	100 yr	18162	229.22	257.36		
52289	100 yr	18162	228.9	256.99	0	52289	100 yr	18162	228.9	256.99		
52031	100 yr	18162	228.89	256.79	0	52031	100 yr	18162	228.89	256.79		
51871	Highway 107	Bridge			0	51871	Highway 107	Bridge				
51658	100 yr	18162	228.86	255.89	0	51658	100 yr	18162	228.86	255.89		
50992	100 yr	18162	228.78	255.08	0	50992	100 yr	18162	228.78	255.08		
49880	100 yr	18162	228.65	252.41	0	49880	100 yr	18162	228.65	252.41		
48257	100 yr	15382	228.6	250.61	0.02	48257	100 yr	15382	228.6	250.63		
47024	100 yr	15382	228.53	250.46	0.01	47024	100 yr	15382	228.53	250.47		
45712	100 yr	15382	228.55	250.43	0.02	45712	100 yr	15382	228.55	250.45		
45472	100 yr	15382	228.55	249.99	0.02	45472	100 yr	15382	228.55	250.01		
45395	Jacksonville C	Bridge			0	45395	Jacksonville C	Bridge				
45298	100 yr	15382	228.54	249.05	0.01	45298	100 yr	15382	228.54	249.06		
44571	100 yr	15382	228.5	249.07	0.02	44571	100 yr	15382	228.5	249.09		
44446	100 yr	15382	228.5	249.06	0.01	44446	100 yr	15382	228.5	249.07		
43496	100 yr	15382	228.55	248.94	0.01	43496	100 yr	15382	228.55	248.95		
43085	100 yr	15382	228.51	248.84	0.02	43085	100 yr	15382	228.51	248.86		
41434	100 yr	15382	228.5	248.49	0.02	41434	100 yr	15382	228.5	248.51		
41308	100 yr	15382	228.49	248.42	0.02	41308	100 yr	15382	228.49	248.44		
41266	Main St	Bridge			0	41266	Main St	Bridge				
41219	100 yr	15382	228.47	248.37	0.03	41219	100 yr	15382	228.47	248.4		
40770	100 yr	19017	228.46	248.2	0.03	40770	100 yr	19017	228.46	248.23		
39406	100 yr	19017	228.44	248.14	0.03	39406	100 yr	19017	228.44	248.17		
35386	100 yr	19017	227.29	248.09	0.03	35386	100 yr	19017	227.29	248.12		
32684	100 yr	8258	226.64	248.08	0.01	32684	100 yr	8258	226.64	248.09		
30448	100 yr	8258	226.05	248.08	-0.02	30448	100 yr	8258	226.05	248.06		
28499	100 yr	8258	225.6	247.98	-0.06	28499	100 yr	8258	225.6	247.92		



28314 Highway 67/1 Bridge				0	28314 Highway 67/1 Bridge			
28137 100 yr	8258	225.6	247.58	0	28137 100 yr	8258	225.6	247.58
27176 100 yr	11536	225.57	247.61	0	27176 100 yr	11536	225.57	247.61
25908 100 yr	11536	225.59	247.6	0	25908 100 yr	11536	225.59	247.6
22754 100 yr	11536	225.46	247.58	0	22754 100 yr	11536	225.46	247.58
21623 100 yr	8138	225.3	247.56	0	21623 100 yr	8138	225.3	247.56
19614 100 yr	8138	225.32	247.38	0	19614 100 yr	8138	225.32	247.38
19558 Union Pacific I Bridge				0	19558 Union Pacific I Bridge			
19502 100 yr	8138	225.31	247.11	0	19502 100 yr	8138	225.31	247.11
19226 100 yr	8138	225.31	247.13	0	19226 100 yr	8138	225.31	247.13
17903 100 yr	8138	225.01	246.93	0	17903 100 yr	8138	225.01	246.93
17308 100 yr	8138	224.8	246.87	0	17308 100 yr	8138	224.8	246.87
17115 100 yr	8138	224.73	246.82	0	17115 100 yr	8138	224.73	246.82
17007 Highway 161 Bridge				0	17007 Highway 161 Bridge			
16877 100 yr	8138	224.73	246.32	0	16877 100 yr	8138	224.73	246.32
16337 100 yr	8138	224.12	245.75	0	16337 100 yr	8138	224.12	245.75
14718 100 yr	8138	223.8	243.18	0	14718 100 yr	8138	223.8	243.18
13699 100 yr	8138	223.79	243.09	0	13699 100 yr	8138	223.79	243.09
12159 100 yr	8138	223.71	243.03	0	12159 100 yr	8138	223.71	243.03
10117 100 yr	8138	223.47	243.01	0	10117 100 yr	8138	223.47	243.01
8627 100 yr	8138	223.43	243	0	8627 100 yr	8138	223.43	243
7687 100 yr	8138	223.03	243	0	7687 100 yr	8138	223.03	243
7336 100 yr	8138	222.88	243	0	7336 100 yr	8138	222.88	243
7077 100 yr	8138	222.8	243	0	7077 100 yr	8138	222.8	243
6239 100 yr	8138	222.68	243	0	6239 100 yr	8138	222.68	243
4989 100 yr	9445	222.7	242.99	0	4989 100 yr	9445	222.7	242.99
3682 100 yr	9445	222.55	242.99	0	3682 100 yr	9445	222.55	242.99
2082 100 yr	9445	222.3	242.99	0	2082 100 yr	9445	222.3	242.99
481 100 yr	9445	222.2	242.98	0	481 100 yr	9445	222.2	242.98
-11175 100 yr	9445	221.8	242.89	0	-11175 100 yr	9445	221.8	242.89

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74750	100 yr	17723	241.51	265.63	0	74750	100 yr	17723	241.51	265.63
71985	Co 100 yr	17723	239.27	265.55	0	71985	Co 100 yr	17723	239.27	265.55
71411	100 yr	17723	238.96	265.49	0	71411	100 yr	17723	238.96	265.49
70774	100 yr	17723	238.7	265.46	0	70774	100 yr	17723	238.7	265.46
70066	100 yr	17723	238.2	265.31	0	70066	100 yr	17723	238.2	265.31
69947	100 yr	17723	238.09	265.02	0	69947	100 yr	17723	238.09	265.02
69868	Tom Box Rd	Bridge			0	69868	Tom Box Rd	Bridge		
69779	100 yr	17723	238.09	264.89	0	69779	100 yr	17723	238.09	264.89
69098	100 yr	17723	237.25	264.9	0	69098	100 yr	17723	237.25	264.9
68739	100 yr	18001	236.93	264.89	0	68739	100 yr	18001	236.93	264.89
68123	100 yr	18001	236.86	264.86	0	68123	100 yr	18001	236.86	264.86
67060	100 yr	18001	236	264.84	0	67060	100 yr	18001	236	264.84
66185	100 yr	18096	235.63	264.82	0	66185	100 yr	18096	235.63	264.82
65425	100 yr	18096	235.32	264.81	0	65425	100 yr	18096	235.32	264.81
64615	100 yr	18096	234.93	264.79	0	64615	100 yr	18096	234.93	264.79
63083	100 yr	18096	234.21	264.31	0	63083	100 yr	18096	234.21	264.31
61779	100 yr	18162	233.26	263.28	0	61779	100 yr	18162	233.26	263.28
59744	100 yr	18162	231.81	261.75	0	59744	100 yr	18162	231.81	261.75
58133	100 yr	18162	230.87	260.51	0	58133	100 yr	18162	230.87	260.51
56744	100 yr	18162	230.13	259.7	0.01	56744	100 yr	18162	230.13	259.71
55111	100 yr	18162	229.56	258.83	0	55111	100 yr	18162	229.56	258.83
53637	100 yr	18162	229.22	257.36	0	53637	100 yr	18162	229.22	257.36
52289	100 yr	18162	228.9	256.99	0	52289	100 yr	18162	228.9	256.99
52031	100 yr	18162	228.89	256.79	0	52031	100 yr	18162	228.89	256.79
51871	Highway 107	Bridge			0	51871	Highway 107	Bridge		
51658	100 yr	18162	228.86	255.89	0	51658	100 yr	18162	228.86	255.89
50992	100 yr	18162	228.78	255.08	0	50992	100 yr	18162	228.78	255.08
49880	100 yr	18162	228.65	252.41	0	49880	100 yr	18162	228.65	252.41
48257	100 yr	15382	228.6	250.61	0.02	48257	100 yr	15382	228.6	250.63
47024	100 yr	15382	228.53	250.46	0.01	47024	100 yr	15382	228.53	250.47
45712	100 yr	15382	228.55	250.43	0.02	45712	100 yr	15382	228.55	250.45
45472	100 yr	15382	228.55	249.99	0.02	45472	100 yr	15382	228.55	250.01
45395	Jacksonville Ci	Bridge			0	45395	Jacksonville Ci	Bridge		
45298	100 yr	15382	228.54	249.05	0.01	45298	100 yr	15382	228.54	249.06
44571	100 yr	15382	228.5	249.07	0.02	44571	100 yr	15382	228.5	249.09
44446	100 yr	15382	228.5	249.06	0.01	44446	100 yr	15382	228.5	249.07
43496	100 yr	15382	228.55	248.94	0.01	43496	100 yr	15382	228.55	248.95
43085	100 yr	15382	228.51	248.84	0.02	43085	100 yr	15382	228.51	248.86
41434	100 yr	15382	228.5	248.49	0.02	41434	100 yr	15382	228.5	248.51
41308	100 yr	15382	228.49	248.42	0.02	41308	100 yr	15382	228.49	248.44
41266	Main St	Bridge			0	41266	Main St	Bridge		
41219	100 yr	15382	228.47	248.37	0.03	41219	100 yr	15382	228.47	248.4
40770	100 yr	19017	228.46	248.2	0.03	40770	100 yr	19017	228.46	248.23
39406	100 yr	19017	228.44	248.14	0.03	39406	100 yr	19017	228.44	248.17
35386	100 yr	19017	227.29	248.09	0.03	35386	100 yr	19017	227.29	248.12
32684	100 yr	8258	226.64	248.08	0.01	32684	100 yr	8258	226.64	248.09
30448	100 yr	8258	226.05	248.08	-0.02	30448	100 yr	8258	226.05	248.06
28499	100 yr	8258	225.6	247.98	-0.06	28499	100 yr	8258	225.6	247.92

28314 Highway 67/1 Bridge	0	28314 Highway 67/1 Bridge	0
28137 100 yr	8258 225.6 247.58	28137 100 yr	8258 225.6 247.58
27176 100 yr	11536 225.57 247.61	27176 100 yr	11536 225.57 247.61
25908 100 yr	11536 225.59 247.6	25908 100 yr	11536 225.59 247.6
22754 100 yr	11536 225.46 247.58	22754 100 yr	11536 225.46 247.58
21623 100 yr	8138 225.3 247.56	21623 100 yr	8138 225.3 247.56
19614 100 yr	8138 225.32 247.38	19614 100 yr	8138 225.32 247.38
19558 Union Pacific I Bridge	0	19558 Union Pacific I Bridge	0
19502 100 yr	8138 225.31 247.11	19502 100 yr	8138 225.31 247.11
19226 100 yr	8138 225.31 247.13	19226 100 yr	8138 225.31 247.13
17903 100 yr	8138 225.01 246.93	17903 100 yr	8138 225.01 246.93
17308 100 yr	8138 224.8 246.87	17308 100 yr	8138 224.8 246.87
17115 100 yr	8138 224.73 246.82	17115 100 yr	8138 224.73 246.82
17007 Highway 161 Bridge	0	17007 Highway 161 Bridge	0
16877 100 yr	8138 224.73 246.32	16877 100 yr	8138 224.73 246.32
16337 100 yr	8138 224.12 245.75	16337 100 yr	8138 224.12 245.75
14718 100 yr	8138 223.8 243.18	14718 100 yr	8138 223.8 243.18
13699 100 yr	8138 223.79 243.09	13699 100 yr	8138 223.79 243.09
12159 100 yr	8138 223.71 243.03	12159 100 yr	8138 223.71 243.03
10117 100 yr	8138 223.47 243.01	10117 100 yr	8138 223.47 243.01
8627 100 yr	8138 223.43 243	8627 100 yr	8138 223.43 243
7687 100 yr	8138 223.03 243	7687 100 yr	8138 223.03 243
7336 100 yr	8138 222.88 243	7336 100 yr	8138 222.88 243
7077 100 yr	8138 222.8 243	7077 100 yr	8138 222.8 243
6239 100 yr	8138 222.68 243	6239 100 yr	8138 222.68 243
4989 100 yr	9445 222.7 242.99	4989 100 yr	9445 222.7 242.99
3682 100 yr	9445 222.55 242.99	3682 100 yr	9445 222.55 242.99
2082 100 yr	9445 222.3 242.99	2082 100 yr	9445 222.3 242.99
481 100 yr	9445 222.2 242.98	481 100 yr	9445 222.2 242.98
-11175 100 yr	9445 221.8 242.89	-11175 100 yr	9445 221.8 242.89

## **APPENDIX**

- Proposed FEMA FIS Southwestern Floodplain/Floodway Limits Map
- Typical Existing Conditions Section
- Typical Proposed Conditions Section

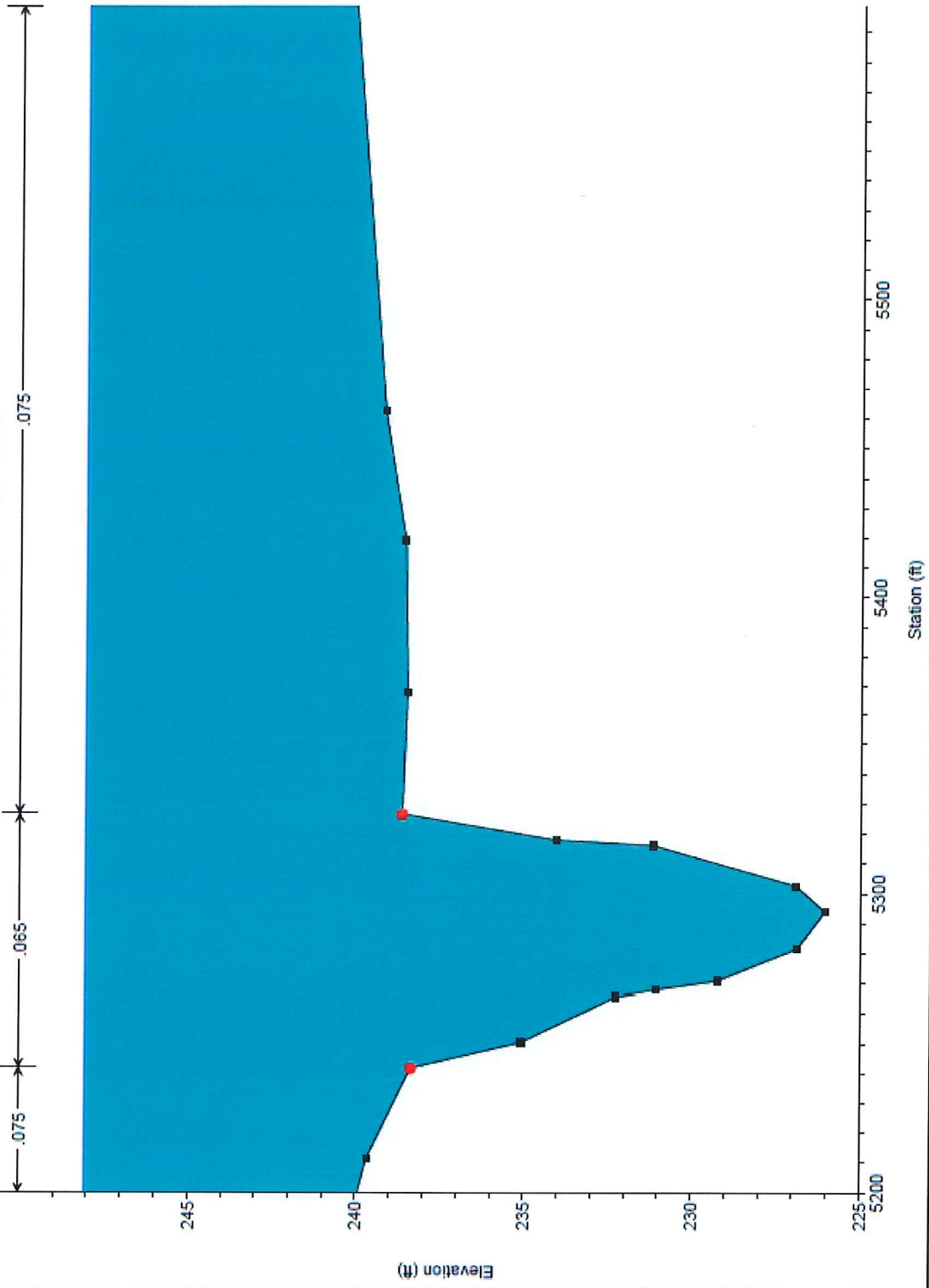






### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS    Flow: 100-year  
River = Bayou Meto    Reach = 1    RS = 30448






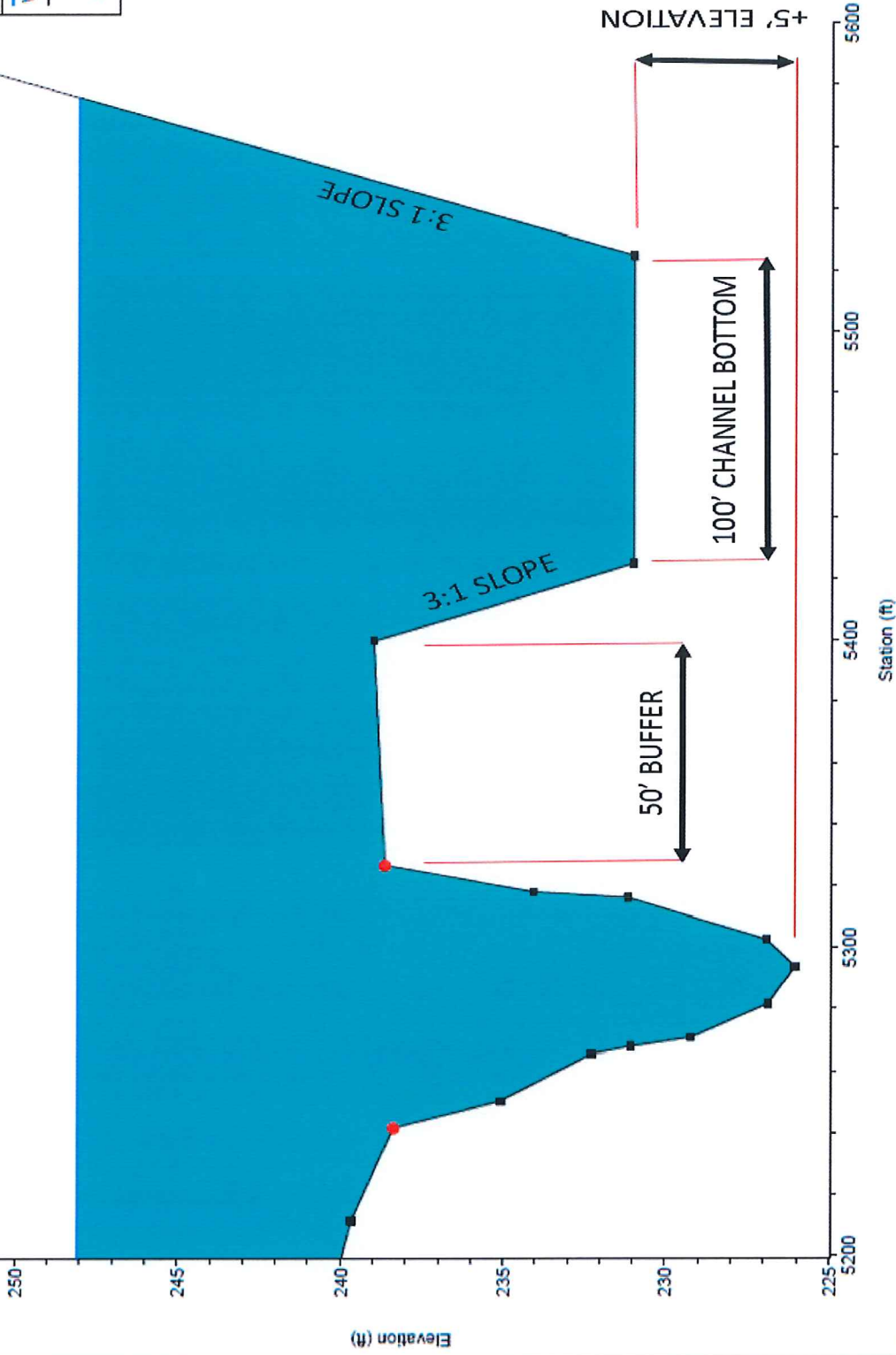
Bayou Meto - BA

Geom: Bayou Meto - BA Flow: 100-year

River = Bayou Meto Reach = 1 RS = 30448 BA edits for 50-buffer - 100 channel - EL 250+

0.075 0.065 0.075

Legend	
	WS 100 yr
	Ground
	Bank Sta



## **APPENDIX**

- HEC-RAS Summary Results Existing Conditions
- HEC-RAS Profile Results Existing Conditions
- HEC-RAS Cross-Section Results Existing Conditions

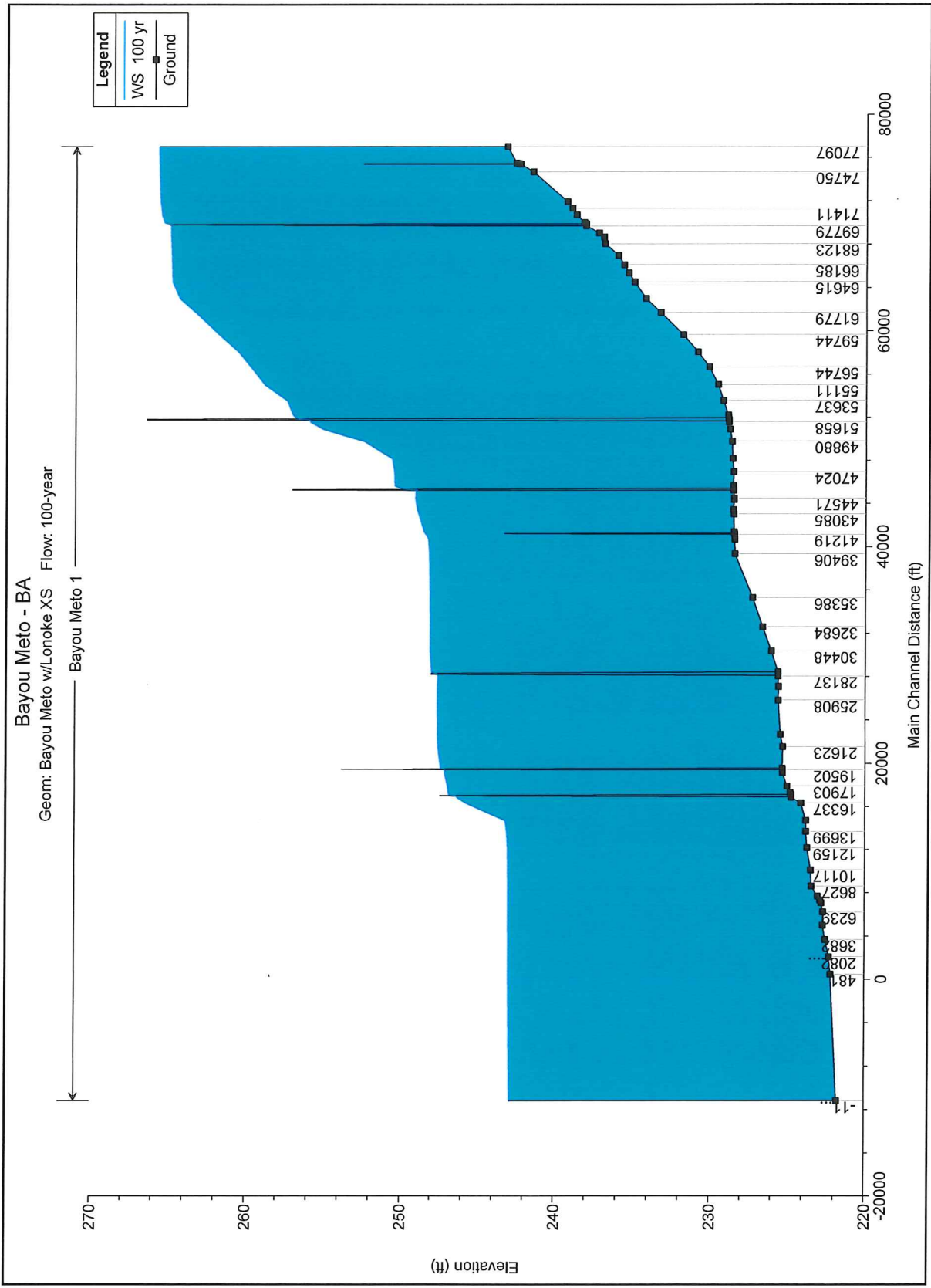
HEC-RAS Plan: Plan 07 River: Bayou Meto Reach: 1 Profile: 100 yr

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl	
1	77097	100 yr	17723.00	243.19	265.65		265.66	0.000018	0.66	24629.08	2605.92	0.03	
1	75578	100 yr	17723.00	242.60	265.64		265.65	0.000017	0.63	25302.76	3248.98	0.03	
1	75518	100 yr	17723.00	242.45	265.64	254.57	265.65	0.000016	0.63	25248.70	3218.02	0.02	
1	75483	Jim Hall Rd	Bridge										
1	75450	100 yr	17723.00	242.33	265.63		265.65	0.000022	0.74	25631.52	3114.62	0.03	
1	74750	100 yr	17723.00	241.51	265.63		265.64	0.000013	0.53	26360.35	2630.07	0.02	
1	71985	Conf. Bridge Cre	100 yr	17723.00	239.27	265.55		265.60	0.000157	2.23	13779.60	1210.01	0.08
1	71411	100 yr	17723.00	238.96	265.49		265.52	0.000110	1.66	16532.98	1386.49	0.07	
1	70774	100 yr	17723.00	238.70	265.46		265.47	0.000042	1.29	20955.14	1370.27	0.04	
1	70066	100 yr	17723.00	238.20	265.31		265.40	0.000290	3.42	8563.39	618.35	0.12	
1	69947	100 yr	17723.00	238.09	265.02	252.66	265.30	0.000860	5.56	5544.38	713.99	0.20	
1	69868	Tom Box Rd	Bridge										
1	69779	100 yr	17723.00	238.09	264.89		265.00	0.000353	3.55	7580.43	989.12	0.13	
1	69098	100 yr	17723.00	237.25	264.90		264.91	0.000027	1.04	25482.92	2106.71	0.04	
1	68739	100 yr	18001.00	236.93	264.89		264.90	0.000020	0.75	32463.84	2802.93	0.03	
1	68123	100 yr	18001.00	236.86	264.86		264.88	0.000065	1.32	22710.37	1594.45	0.05	
1	67060	100 yr	18001.00	236.00	264.84		264.84	0.000016	0.78	51347.34	3887.33	0.03	
1	66185	100 yr	18096.00	235.63	264.82		264.83	0.000019	0.88	44693.44	3064.96	0.03	
1	65425	100 yr	18096.00	235.32	264.81		264.82	0.000013	0.69	44657.27	3056.59	0.02	
1	64615	100 yr	18096.00	234.93	264.79		264.80	0.000034	1.09	24616.81	1512.11	0.04	
1	63083	100 yr	18096.00	234.21	264.31		264.63	0.000822	5.76	5131.65	312.32	0.19	
1	61779	100 yr	18162.00	233.26	263.28		263.59	0.000776	5.24	5094.73	316.79	0.18	
1	59744	100 yr	18162.00	231.81	261.75		262.02	0.000791	5.31	5701.90	403.88	0.18	
1	58133	100 yr	18162.00	230.87	260.51		260.78	0.000794	4.96	5734.20	444.80	0.18	
1	56744	100 yr	18162.00	230.13	259.70		259.87	0.000532	4.03	7877.44	727.87	0.15	
1	55111	100 yr	18162.00	229.56	258.83		259.00	0.000555	4.31	7800.31	738.61	0.15	
1	53637	100 yr	18162.00	229.22	257.36		257.79	0.001475	6.69	4610.30	378.28	0.24	
1	52289	100 yr	18162.00	228.90	256.99		257.07	0.000229	2.89	9848.09	698.61	0.10	
1	52031	100 yr	18162.00	228.89	256.79	245.44	256.96	0.000487	3.72	5687.81	1115.04	0.14	
1	51871	Highway 107	Bridge										
1	51658	100 yr	18162.00	228.86	255.89		256.07	0.000747	4.47	7000.59	1214.26	0.18	
1	50992	100 yr	18162.00	228.78	255.08		255.40	0.001234	6.02	5389.52	469.63	0.22	
1	49880	100 yr	18162.00	228.65	252.41		253.27	0.003143	9.04	3098.74	289.67	0.36	
1	48257	100 yr	15382.00	228.60	250.61		250.73	0.000753	3.39	8317.36	1901.49	0.17	
1	47024	100 yr	15382.00	228.53	250.46		250.47	0.000093	1.33	23587.49	3773.55	0.06	
1	45712	100 yr	15382.00	228.55	250.43		250.44	0.000029	0.80	34432.64	3934.64	0.03	
1	45472	100 yr	15382.00	228.55	249.99	241.21	250.30	0.001246	4.76	3777.71	1873.27	0.22	
1	45395	Jacksonville Cut	Bridge										
1	45298	100 yr	15382.00	228.54	249.05		249.50	0.001764	5.86	3098.91	3498.85	0.26	
1	44571	100 yr	15382.00	228.50	249.07		249.09	0.000099	1.38	20689.36	2918.39	0.06	
1	44446	100 yr	15382.00	228.50	249.06		249.07	0.000164	1.71	19875.31	3070.87	0.08	
1	43496	100 yr	15382.00	228.55	248.94		248.95	0.000153	1.73	19871.60	3320.82	0.08	
1	43085	100 yr	15382.00	228.51	248.84		248.87	0.000224	2.00	16086.04	2918.00	0.09	
1	41434	100 yr	15382.00	228.50	248.49		248.55	0.000431	2.70	12208.12	2791.61	0.13	
1	41308	100 yr	15382.00	228.49	248.42	243.11	248.50	0.000632	3.59	10986.31	2605.17	0.16	
1	41266	Main St	Bridge										
1	41219	100 yr	15382.00	228.47	248.37	243.85	248.40	0.000349	2.67	14755.94	2931.29	0.12	
1	40770	100 yr	19017.00	228.46	248.20		248.23	0.000219	1.97	20652.08	3403.13	0.09	
1	39406	100 yr	19017.00	228.44	248.14		248.14	0.000032	0.74	49161.75	6622.08	0.03	
1	35386	100 yr	19017.00	227.29	248.09		248.10	0.000021	0.61	56306.76	6780.80	0.03	
1	32684	100 yr	8258.00	226.64	248.08		248.08	0.000001	0.16	99751.05	12000.01	0.01	
1	30448	100 yr	8258.00	226.05	248.08		248.08	0.000003	0.24	79770.44	14335.95	0.01	
1	28499	100 yr	8258.00	225.60	247.98	236.16	248.04	0.000153	1.97	4226.34	10481.54	0.08	
1	28314	Highway 67/167	Bridge										
1	28137	100 yr	8258.00	225.60	247.58		247.66	0.000206	2.29	5196.77	12108.72	0.09	
1	27176	100 yr	11536.00	225.57	247.61		247.61	0.000003	0.24	88940.65	11258.30	0.01	
1	25908	100 yr	11536.00	225.59	247.60		247.60	0.000007	0.38	54138.17	6444.73	0.02	
1	22754	100 yr	11536.00	225.46	247.58		247.58	0.000028	0.71	32513.91	3975.25	0.03	
1	21623	100 yr	8138.00	225.30	247.56		247.56	0.000036	0.93	19064.48	2448.92	0.04	
1	19614	100 yr	8138.00	225.32	247.38	235.90	247.45	0.000226	2.61	4133.41	1855.47	0.10	
1	19558	Union Pacific RR	Bridge										
1	19502	100 yr	8138.00	225.31	247.11		247.23	0.000348	3.09	3213.33	1609.03	0.13	
1	19226	100 yr	8138.00	225.31	247.13		247.14	0.000088	1.31	9135.19	1331.06	0.06	
1	17903	100 yr	8138.00	225.01	246.93		246.97	0.000232	2.00	6551.23	1005.37	0.09	
1	17308	100 yr	8138.00	224.80	246.87		246.90	0.000060	1.55	7474.00	1233.67	0.07	
1	17115	100 yr	8138.00	224.73	246.82	235.92	246.88	0.000290	1.96	4504.83	1310.21	0.08	
1	17007	Highway 161	Bridge										
1	16877	100 yr	8138.00	224.73	246.32		246.37	0.000459	2.42	5178.24	767.97	0.10	
1	16337	100 yr	8138.00	224.12	245.75		245.93	0.001523	4.16	2837.75	569.04	0.18	
1	14718	100 yr	8138.00	223.80	243.18		243.38	0.001638	4.23	2718.65	640.87	0.19	
1	13699	100 yr	8138.00	223.79	243.09	234.82	243.09	0.000060	0.83	14837.41	5514.05	0.04	
1	12159	100 yr	8138.00	223.71	243.03		243.03	0.000014	0.36	32064.60	7193.12	0.02	
1	10117	100 yr	8138.00	223.47	243.01		243.01	0.000008	0.28	40233.37	9105.65	0.01	
1	8627	100 yr	8138.00	223.43	243.00		243.00	0.000005	0.29	44748.11	9348.82	0.01	
1	7687	100 yr	8138.00	223.03	243.00		243.00	0.000003	0.30	55787.17	10092.74	0.01	
1	7336	100 yr	8138.00	222.88	243.00		243.00	0.000004	0.33	54302.60	9482.13	0.02	
1	7077	100 yr	8138.00	222.80	243.00		243.00	0.000004	0.36	53247.10	10403.12	0.02	
1	6239	100 yr	8138.00	222.68	243.00		243.00	0.000002	0.30	54696.11	9835.07	0.01	
1	4989	100 yr	9445.00	222.70	242.99		242.99	0.000002	0.31	63789.55	11441.53	0.01	
1	3682	100 yr	9445.00	222.55	242.99		242.99	0.000003	0.34	57522.91	11290.06	0.02	
1	2082	100 yr	9445.00	222.30	242.99		242.99	0.000003	0.44	52865.02	10139.43	0.02	



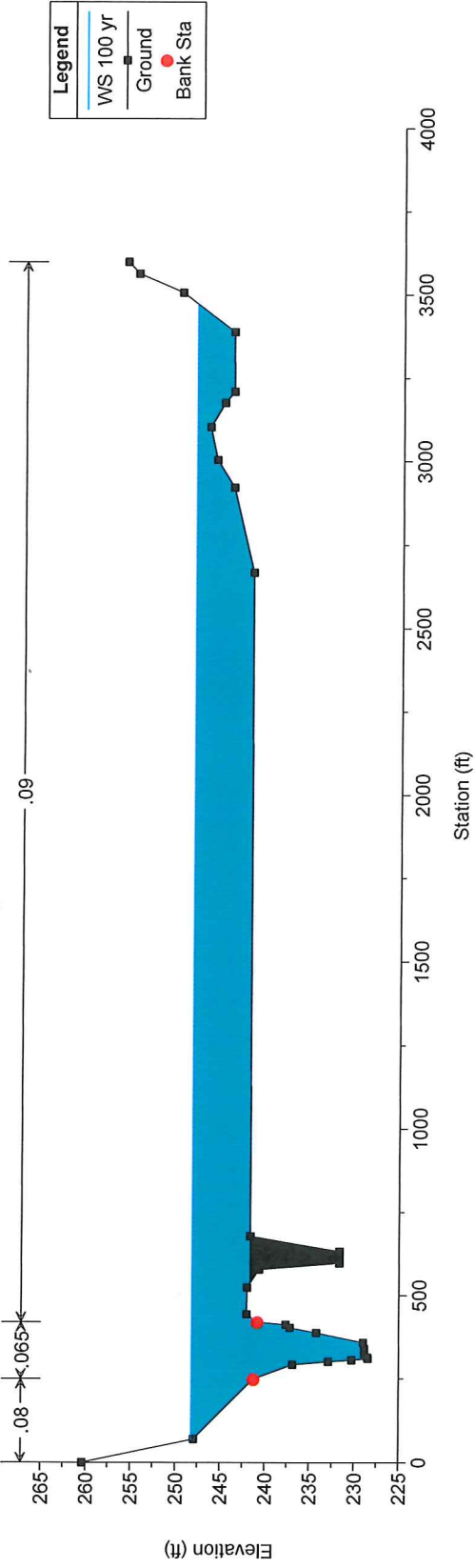
HEC-RAS Plan: Plan 07 River: Bayou Meto Reach: 1 Profile: 100 yr (Continued)

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vej Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	481	100 yr	9445.00	222.20	242.98		242.98	0.000002	0.32	57614.65	8674.98	0.01
1	-11175	100 yr	9445.00	221.80	242.89	234.38	242.91	0.000062	1.49	9035.63	1053.26	0.07



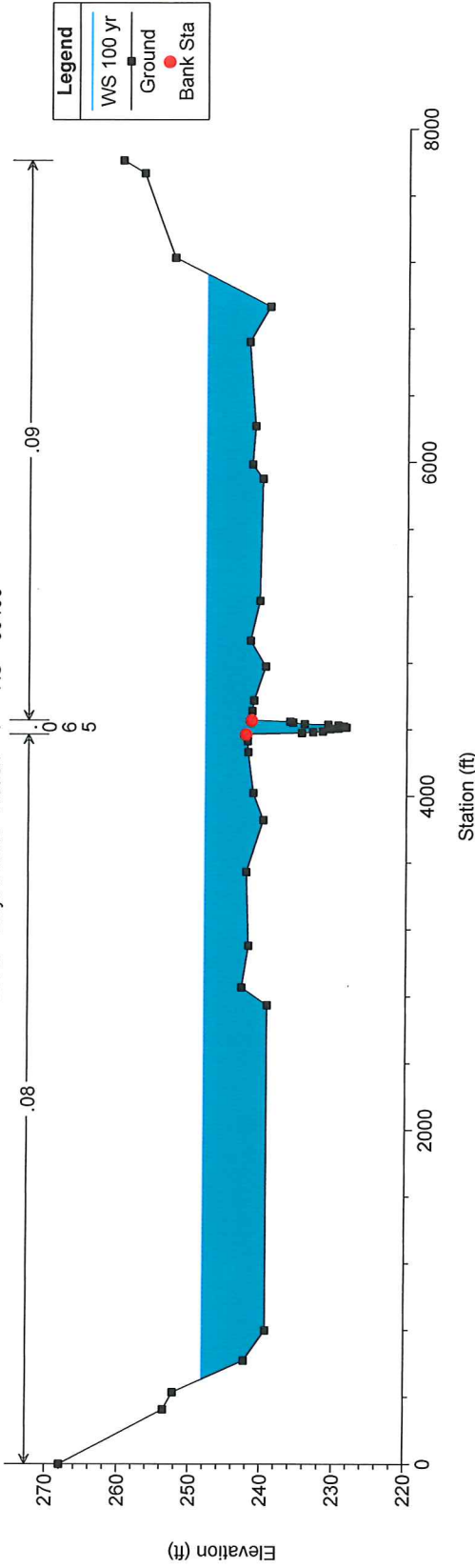
### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
River = Bayou Meto Reach = 1 RS = 40770



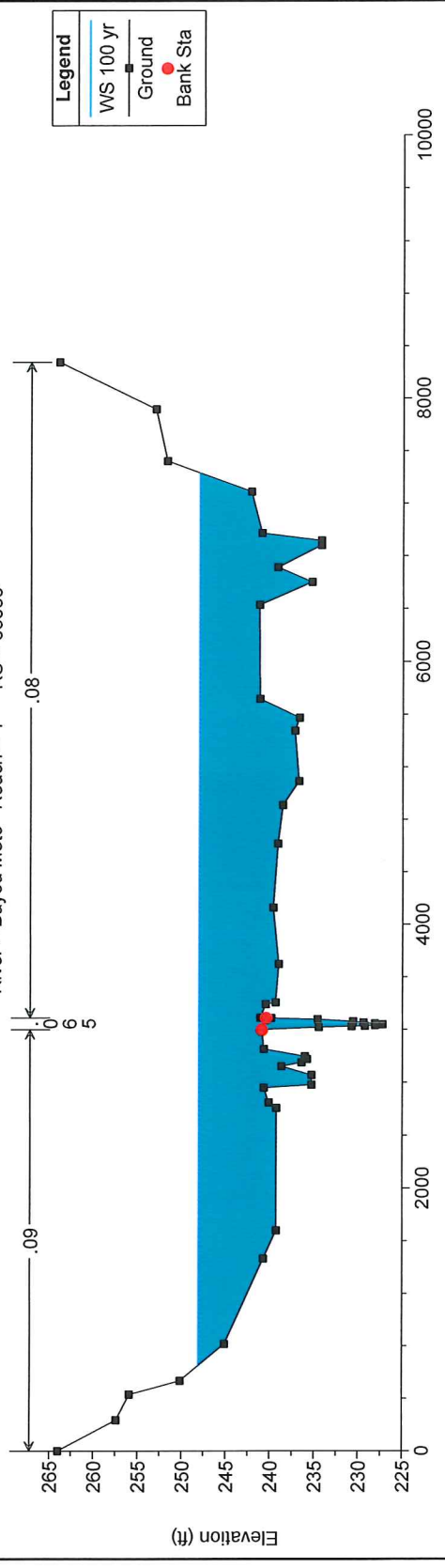
### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
River = Bayou Meto Reach = 1 RS = 39406



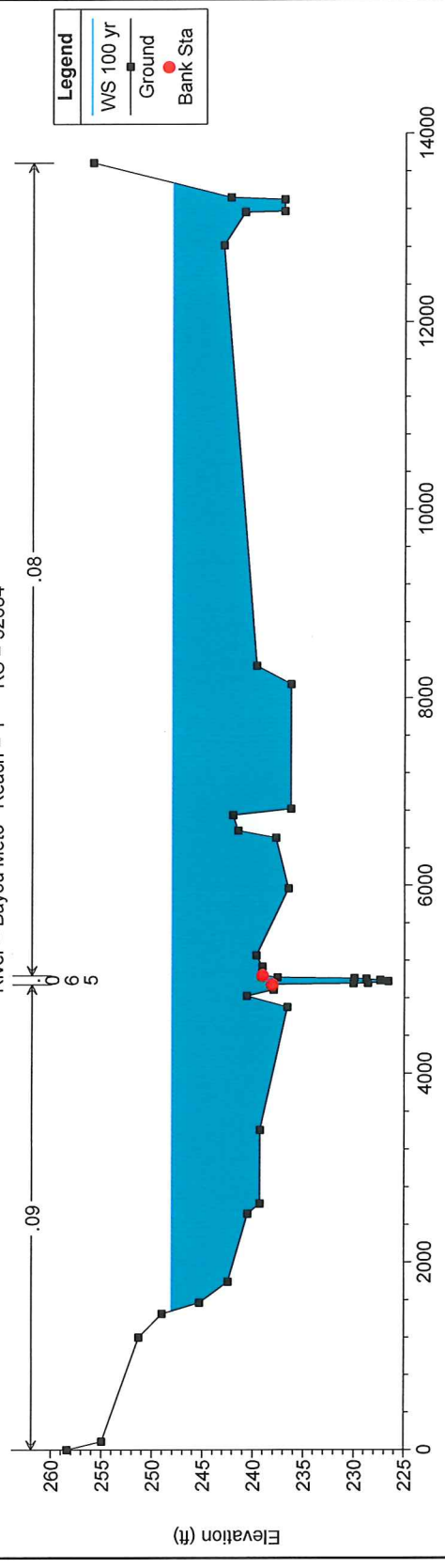
### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
River = Bayou Meto Reach = 1 RS = 35386



### Bayou Meto - BA

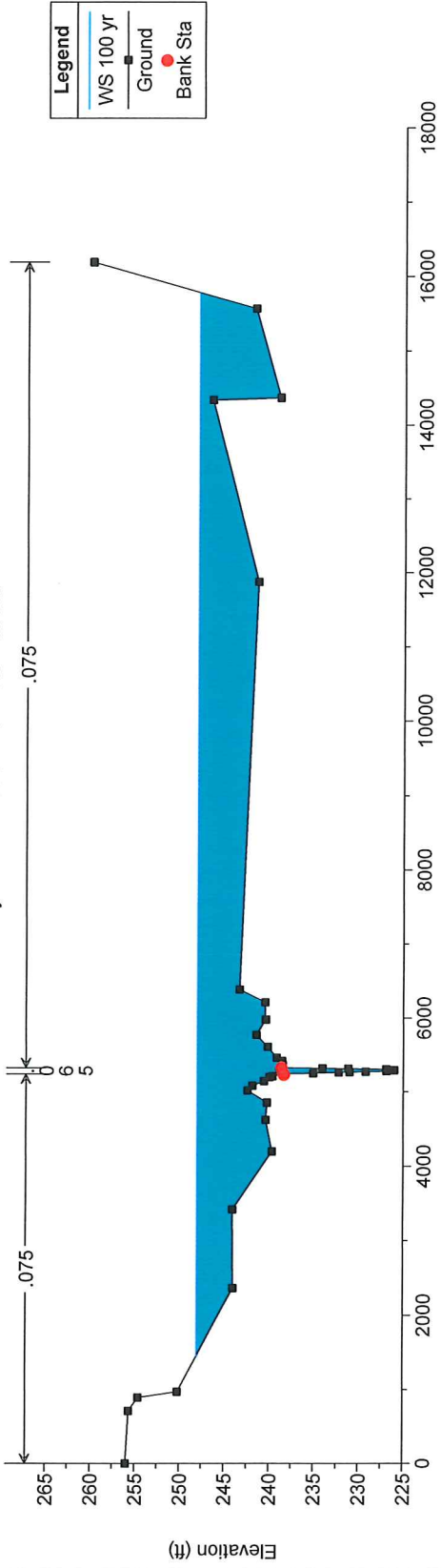
Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
River = Bayou Meto Reach = 1 RS = 32684





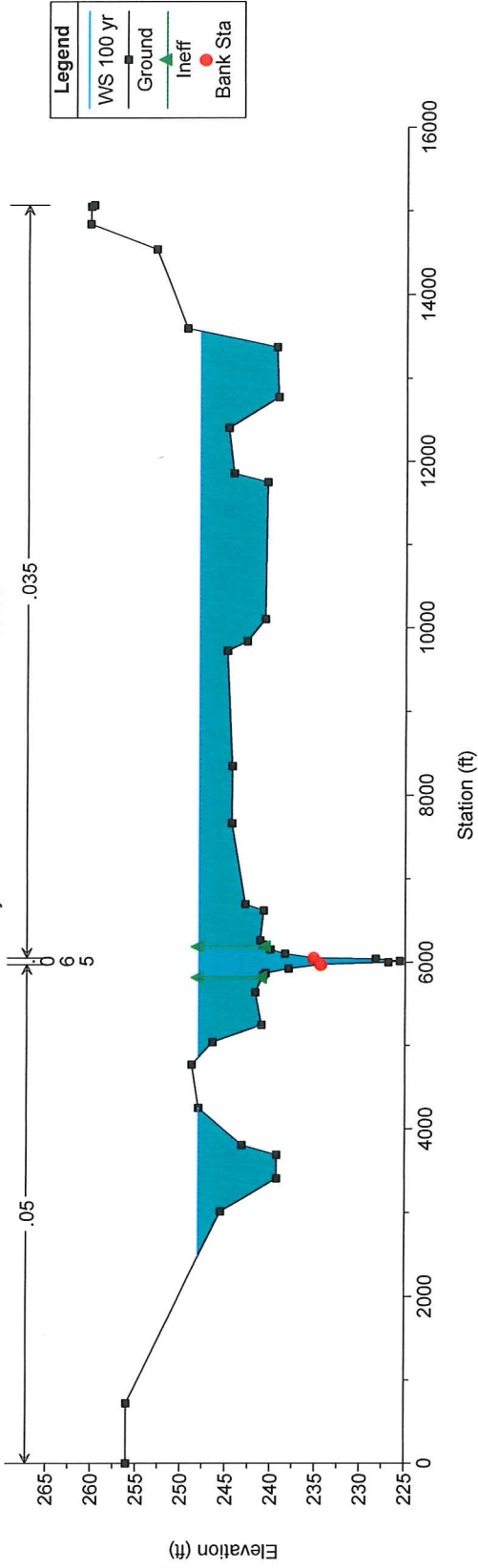
### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
River = Bayou Meto Reach = 1 RS = 30448



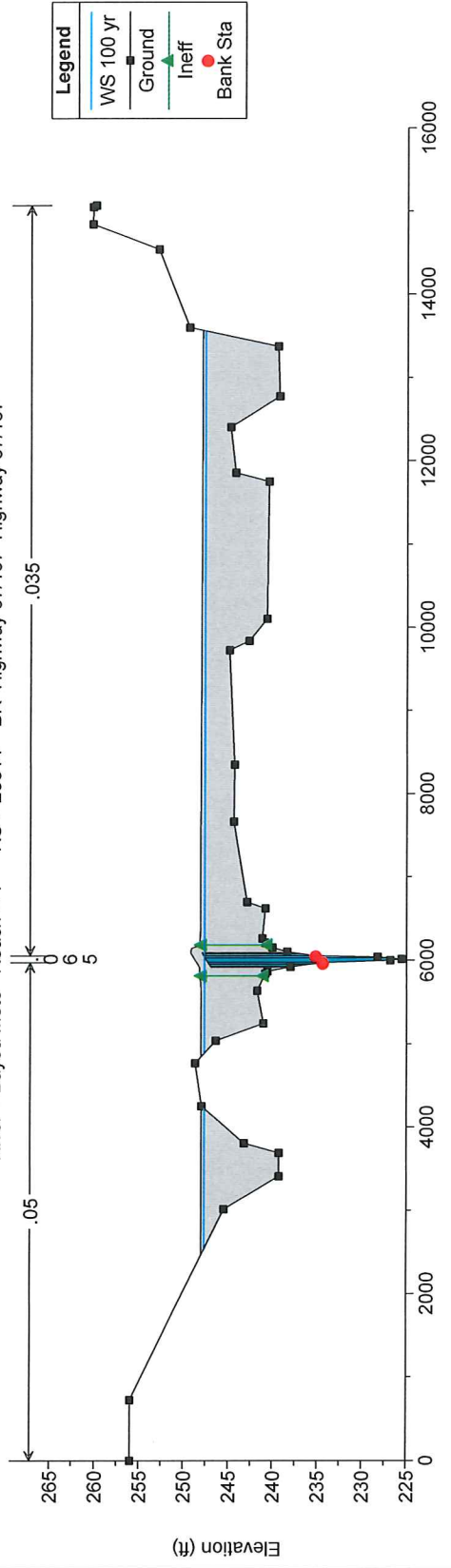
### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
River = Bayou Meto Reach = 1 RS = 28499



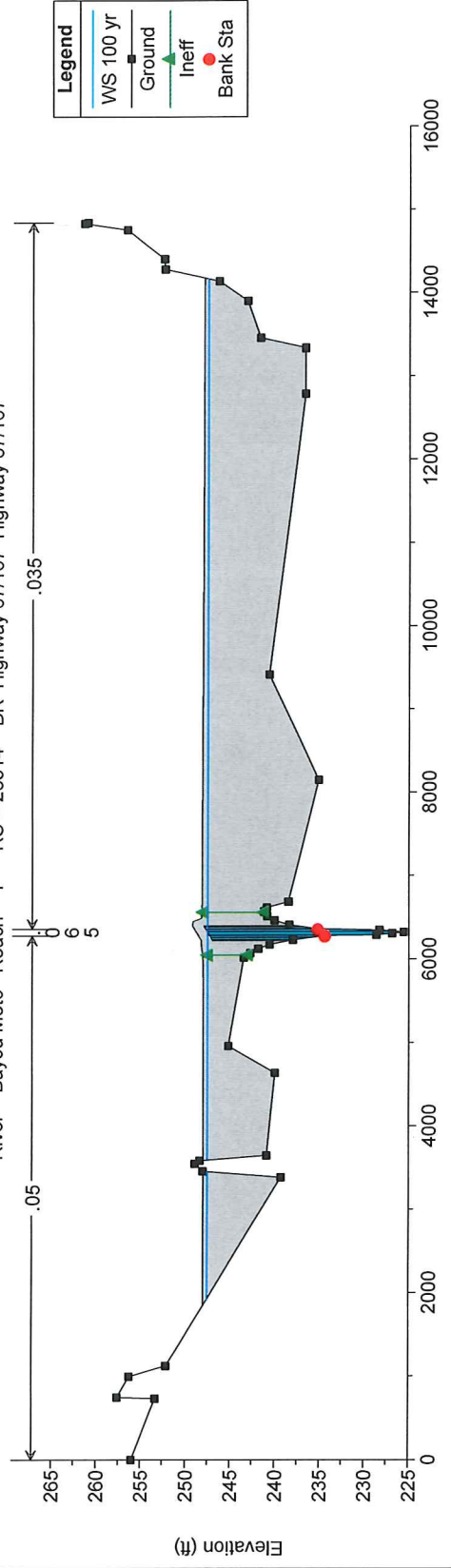
### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
 River = Bayou Meto Reach = 1 RS = 28314 BR Highway 67/167 Highway 67/167



### Bayou Meto - BA

Geom: Bayou Meto w/Lonoke XS Flow: 100-year  
 River = Bayou Meto Reach = 1 RS = 28314 BR Highway 67/167 Highway 67/167



## **APPENDIX**

- HEC-RAS Summary Results Proposed Conditions
- HEC-RAS Profile Results Proposed Conditions
- HEC-RAS Cross-Section Results Proposed Conditions

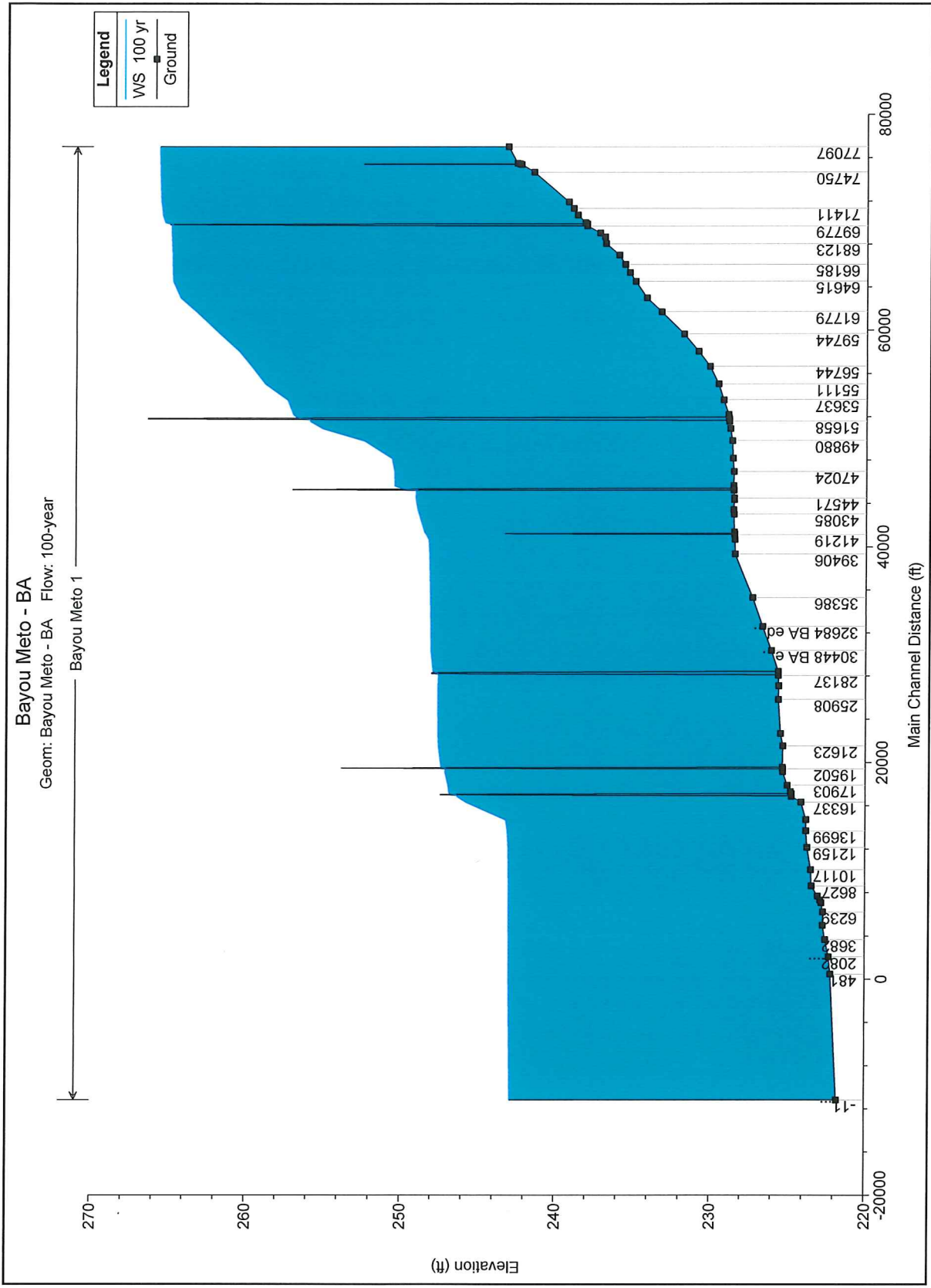
HEC-RAS Plan: Plan 08 River: Bayou Meto Reach: 1 Profile: 100 yr

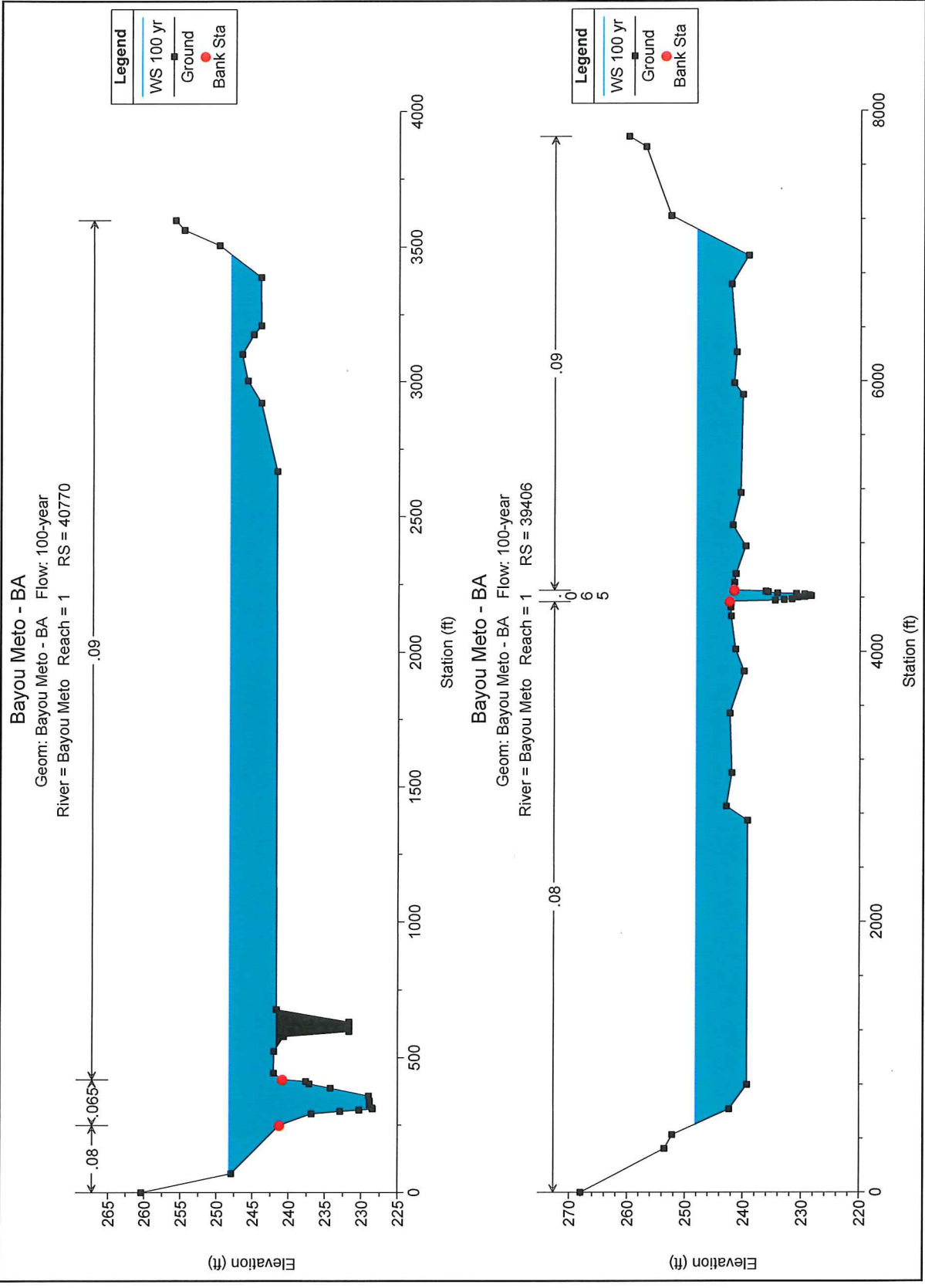
Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl	
1	77097	100 yr	17723.00	243.19	265.66		265.66	0.000018	0.66	24629.56	2605.97	0.03	
1	75578	100 yr	17723.00	242.60	265.64		265.65	0.000017	0.63	25303.35	3249.00	0.03	
1	75518	100 yr	17723.00	242.45	265.64	254.57	265.65	0.000016	0.63	25249.29	3218.04	0.02	
1	75483	Jim Hall Rd	Bridge										
1	75450	100 yr	17723.00	242.33	265.63		265.65	0.000022	0.74	25632.09	3114.65	0.03	
1	74750	100 yr	17723.00	241.51	265.63		265.64	0.000013	0.53	26360.83	2630.08	0.02	
1	71985	Conf. Bridge Cre	100 yr	17723.00	239.27	265.55		265.60	0.000157	2.23	13779.82	1210.01	0.08
1	71411	100 yr	17723.00	238.96	265.49		265.52	0.000110	1.66	16533.24	1386.49	0.07	
1	70774	100 yr	17723.00	238.70	265.46		265.47	0.000042	1.29	20955.44	1370.27	0.04	
1	70066	100 yr	17723.00	238.20	265.31		265.40	0.000290	3.41	8563.50	618.35	0.12	
1	69947	100 yr	17723.00	238.09	265.02	252.66	265.30	0.000860	5.56	5544.53	713.99	0.20	
1	69868	Tom Box Rd	Bridge										
1	69779	100 yr	17723.00	238.09	264.89		265.00	0.000353	3.55	7580.60	989.13	0.13	
1	69098	100 yr	17723.00	237.25	264.90		264.91	0.000027	1.04	25483.38	2106.73	0.03	
1	68739	100 yr	18001.00	236.93	264.89		264.90	0.000020	0.75	32464.44	2802.95	0.04	
1	68123	100 yr	18001.00	236.86	264.86		264.88	0.000065	1.32	22710.71	1594.45	0.05	
1	67060	100 yr	18001.00	236.00	264.84		264.84	0.000016	0.78	51348.17	3887.34	0.03	
1	66185	100 yr	18096.00	235.63	264.82		264.83	0.000019	0.88	44694.09	3064.97	0.03	
1	65425	100 yr	18096.00	235.32	264.81		264.82	0.000013	0.69	44657.92	3056.59	0.02	
1	64615	100 yr	18096.00	234.93	264.79		264.80	0.000034	1.09	24617.13	1512.11	0.04	
1	63083	100 yr	18096.00	234.21	264.31		264.64	0.000822	5.76	5131.73	312.32	0.19	
1	61779	100 yr	18162.00	233.26	263.28		263.59	0.000776	5.24	5094.82	316.79	0.18	
1	59744	100 yr	18162.00	231.81	261.75		262.02	0.000791	5.31	5702.05	403.69	0.18	
1	58133	100 yr	18162.00	230.87	260.51		260.78	0.000794	4.96	5734.39	444.81	0.18	
1	56744	100 yr	18162.00	230.13	259.71		259.87	0.000532	4.03	7877.81	727.87	0.15	
1	55111	100 yr	18162.00	229.56	258.83		259.01	0.000555	4.31	7800.78	738.62	0.15	
1	53637	100 yr	18162.00	229.22	257.36		257.79	0.001475	6.69	4610.65	378.29	0.24	
1	52289	100 yr	18162.00	228.90	256.99		257.07	0.000229	2.89	9848.75	698.63	0.10	
1	52031	100 yr	18162.00	228.89	256.79	245.44	256.96	0.000487	3.72	5688.25	1115.06	0.14	
1	51871	Highway 107	Bridge										
1	51658	100 yr	18162.00	228.86	255.89		256.07	0.000747	4.47	7001.30	1214.28	0.18	
1	50992	100 yr	18162.00	228.78	255.08		255.40	0.001234	6.02	5390.20	469.64	0.22	
1	49880	100 yr	18162.00	228.65	252.41		253.28	0.003141	9.04	3099.57	289.69	0.36	
1	48257	100 yr	15382.00	228.60	250.63		250.75	0.000749	3.38	8340.70	1903.17	0.17	
1	47024	100 yr	15382.00	228.53	250.47		250.49	0.000093	1.33	23636.70	3779.14	0.06	
1	45712	100 yr	15382.00	228.55	250.45		250.45	0.000029	0.80	34484.52	3935.10	0.03	
1	45472	100 yr	15382.00	228.55	250.01	241.19	250.31	0.001241	4.76	3783.18	1874.44	0.22	
1	45395	Jacksonville Cut	Bridge										
1	45298	100 yr	15382.00	228.54	249.06		249.52	0.001756	5.85	3103.11	3499.61	0.26	
1	44571	100 yr	15382.00	228.50	249.09		249.11	0.000098	1.37	20737.77	2919.15	0.06	
1	44446	100 yr	15382.00	228.50	249.07		249.09	0.000163	1.71	19926.58	3071.86	0.08	
1	43496	100 yr	15382.00	228.55	248.95		248.97	0.000152	1.72	19930.54	3321.18	0.08	
1	43085	100 yr	15382.00	228.51	248.86		248.89	0.000222	2.00	16140.19	2918.50	0.09	
1	41434	100 yr	15382.00	228.50	248.51		248.57	0.000426	2.69	12271.95	2797.22	0.13	
1	41308	100 yr	15382.00	228.49	248.44	243.11	248.52	0.000622	3.57	11049.33	2606.83	0.15	
1	41266	Main St	Bridge										
1	41219	100 yr	15382.00	228.47	248.40	243.85	248.43	0.000344	2.65	14829.06	2933.81	0.12	
1	40770	100 yr	19017.00	228.46	248.23		248.25	0.000216	1.96	20744.52	3403.83	0.09	
1	39406	100 yr	19017.00	228.44	248.17		248.17	0.000031	0.74	49346.78	6623.22	0.03	
1	35386	100 yr	19017.00	227.29	248.12		248.12	0.000020	0.61	56499.86	6783.09	0.03	
1	32684	100 yr	8258.00	226.64	248.09		248.09	0.000011	0.47	33697.69	3822.29	0.02	
1	30448	100 yr	8258.00	226.05	248.06		248.07	0.000026	0.74	23375.75	4121.56	0.03	
1	28499	100 yr	8258.00	225.60	247.92	232.98	247.97	0.000067	1.35	5053.25	3082.68	0.05	
1	28314	Highway 67/167	Bridge										
1	28137	100 yr	8258.00	225.60	247.58		247.66	0.000206	2.29	5196.77	12108.72	0.09	
1	27176	100 yr	11536.00	225.57	247.61		247.61	0.000003	0.24	89940.65	11258.30	0.01	
1	25908	100 yr	11536.00	225.59	247.60		247.60	0.000007	0.38	54138.17	6444.73	0.02	
1	22754	100 yr	11536.00	225.46	247.58		247.58	0.000028	0.71	32513.91	3975.25	0.03	
1	21623	100 yr	8138.00	225.30	247.56		247.56	0.000036	0.93	19064.48	2448.92	0.04	
1	19614	100 yr	8138.00	225.32	247.38	235.90	247.45	0.000226	2.61	4133.41	1855.47	0.10	
1	19558	Union Pacific RR	Bridge										
1	19502	100 yr	8138.00	225.31	247.11		247.23	0.000348	3.09	3213.33	1609.03	0.13	
1	19226	100 yr	8138.00	225.31	247.13		247.14	0.000088	1.31	9135.19	1331.06	0.06	
1	17903	100 yr	8138.00	225.01	246.93		246.97	0.000232	2.00	6551.23	1005.37	0.09	
1	17308	100 yr	8138.00	224.80	246.87		246.90	0.000060	1.55	7474.00	1233.67	0.07	
1	17115	100 yr	8138.00	224.73	246.82	235.92	246.88	0.000290	1.96	4504.83	1310.21	0.08	
1	17007	Highway 161	Bridge										
1	16877	100 yr	8138.00	224.73	246.32		246.37	0.000459	2.42	5178.24	767.97	0.10	
1	16337	100 yr	8138.00	224.12	245.75		245.93	0.001523	4.16	2837.75	569.04	0.18	
1	14718	100 yr	8138.00	223.80	243.18		243.38	0.001638	4.23	2718.65	640.87	0.19	
1	13699	100 yr	8138.00	223.79	243.09	234.82	243.09	0.000060	0.83	14837.41	5514.05	0.04	
1	12159	100 yr	8138.00	223.71	243.03		243.03	0.000014	0.36	32064.60	7193.12	0.02	
1	10117	100 yr	8138.00	223.47	243.01		243.01	0.000008	0.28	40233.37	9105.65	0.01	
1	8627	100 yr	8138.00	223.43	243.00		243.00	0.000005	0.29	44748.11	9348.82	0.01	
1	7667	100 yr	8138.00	223.03	243.00		243.00	0.000003	0.30	55787.17	10092.74	0.01	
1	7336	100 yr	8138.00	222.88	243.00		243.00	0.000004	0.33	54302.60	9482.13	0.02	
1	7077	100 yr	8138.00	222.80	243.00		243.00	0.000004	0.36	53247.10	10403.12	0.02	
1	6239	100 yr	8138.00	222.68	243.00		243.00	0.000002	0.30	54696.11	9835.07	0.01	
1	4989	100 yr	9445.00	222.70	242.99		242.99	0.000002	0.31	63789.55	11441.53	0.01	
1	3682	100 yr	9445.00	222.55	242.99		242.99	0.000003	0.34	57522.91	11290.06	0.02	
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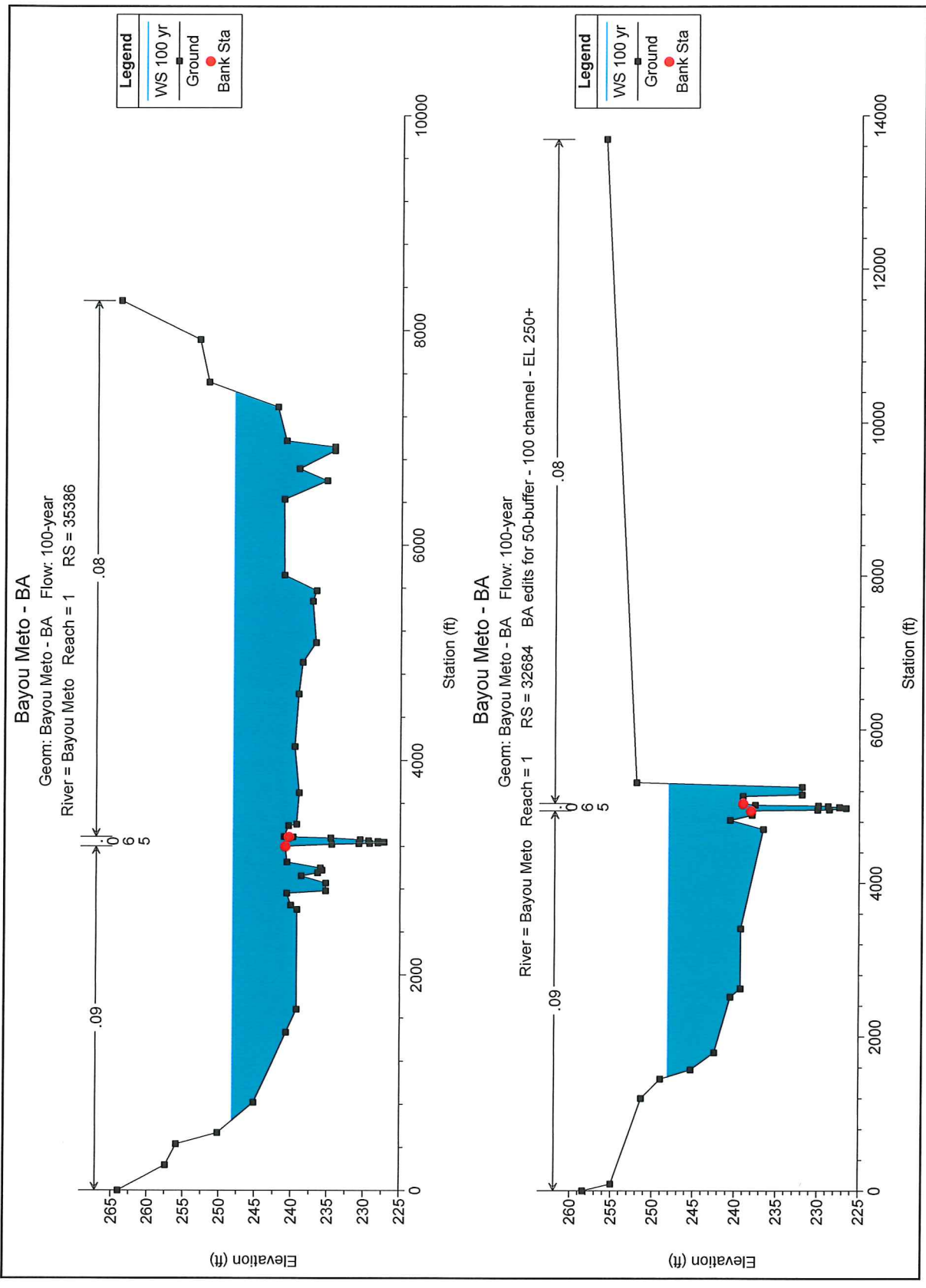


HEC-RAS Plan: Plan 08 River: Bayou Melo Reach: 1 Profile: 100 yr (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vej Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	481	100 yr	9445.00	222.20	242.98		242.98	0.000002	0.32	57614.65	8674.98	0.01
1	-11175	100 yr	9445.00	221.80	242.89	234.38	242.91	0.000062	1.49	9035.63	1053.26	0.07



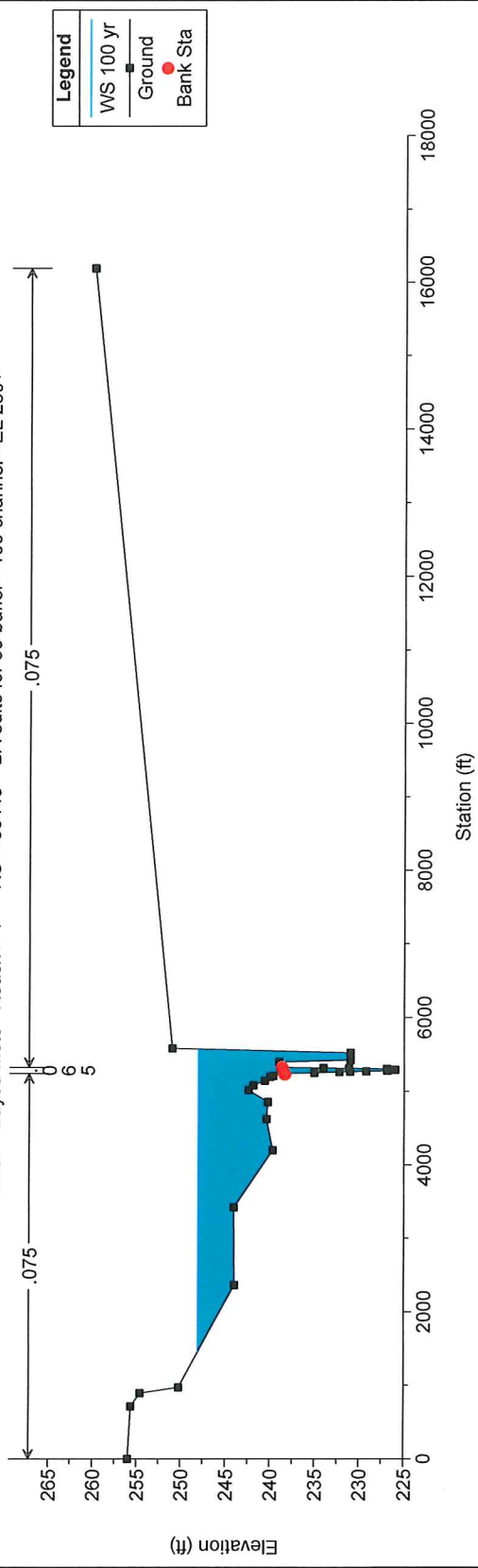






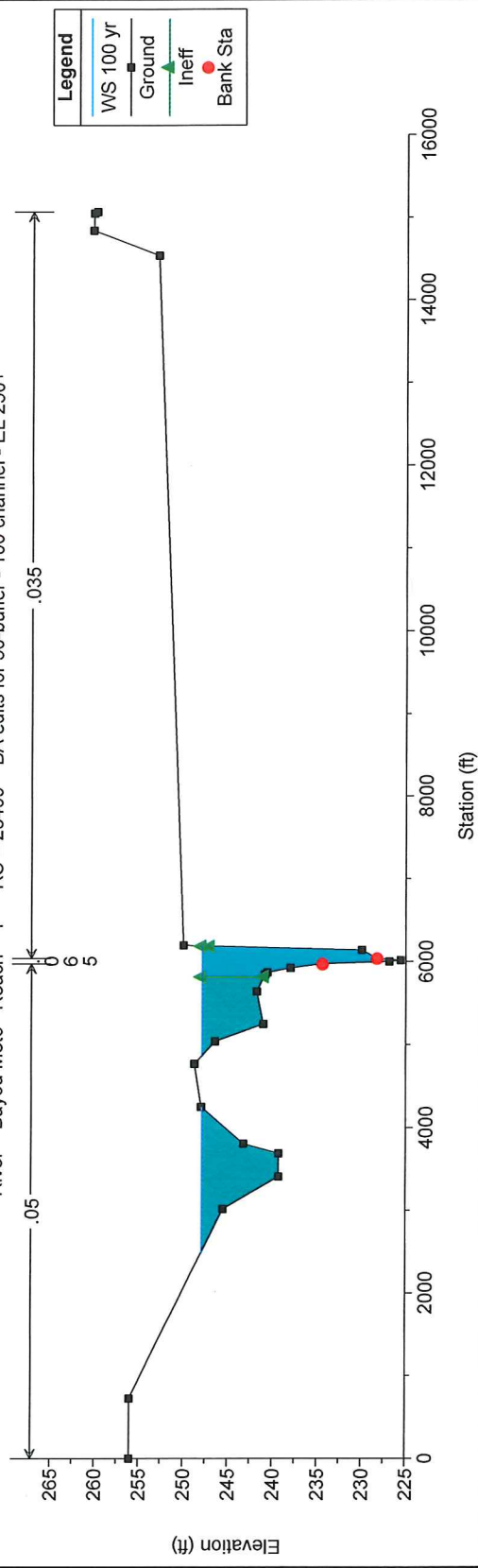
### Bayou Meto - BA

Geom: Bayou Meto - BA Flow: 100-year  
 River = Bayou Meto Reach = 1 RS = 30448 BA edits for 50-buffer - 100 channel - EL 250+



### Bayou Meto - BA

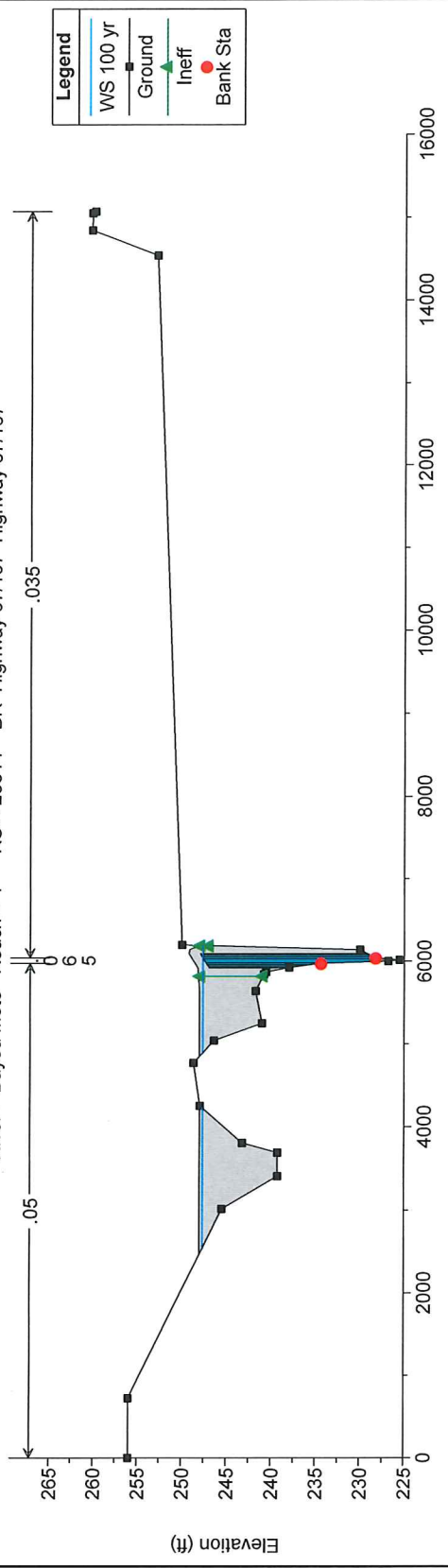
Geom: Bayou Meto - BA Flow: 100-year  
 River = Bayou Meto Reach = 1 RS = 28499 BA edits for 50-buffer - 100 channel - EL 250+



**Bayou Meto - BA**

Geom: Bayou Meto - BA Flow: 100-year

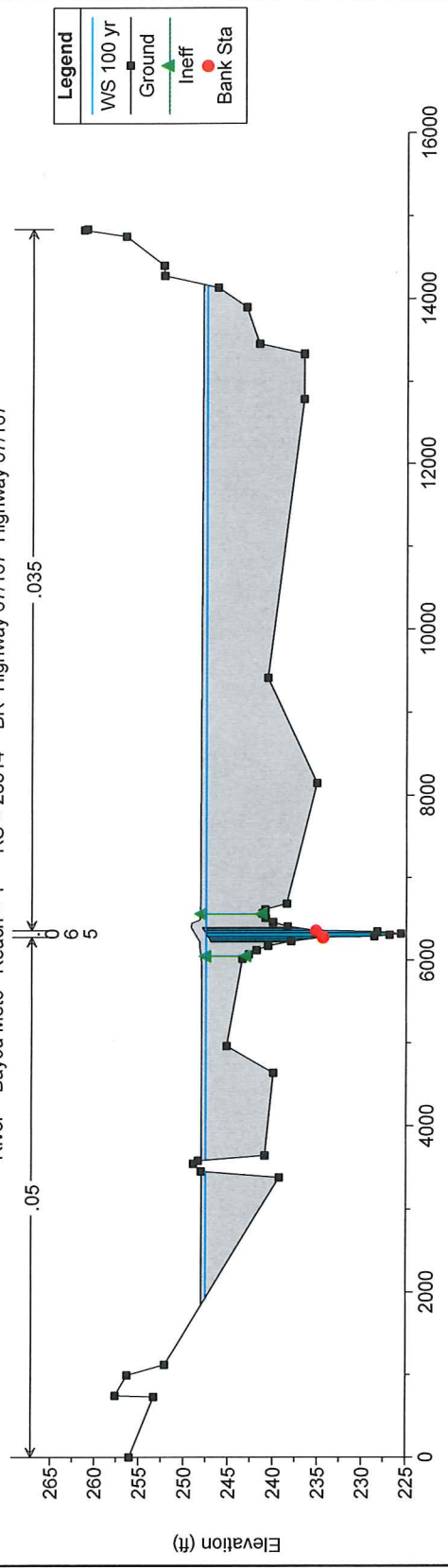
River = Bayou Meto Reach = 1 RS = 28314 BR Highway 67/167 Highway 67/167



**Bayou Meto - BA**

Geom: Bayou Meto - BA Flow: 100-year

River = Bayou Meto Reach = 1 RS = 28314 BR Highway 67/167 Highway 67/167



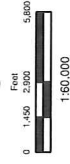
## APPENDIX

- Current FEMA FIS Stream and Cross-Section Layout, Bayou Meto



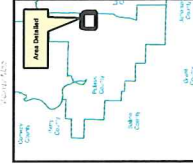
Pulaski County  
FEMA  
Cooperating  
Technical  
Partner  
2005 Study Area

**B-1  
Stream and  
Cross-Section  
Layout**

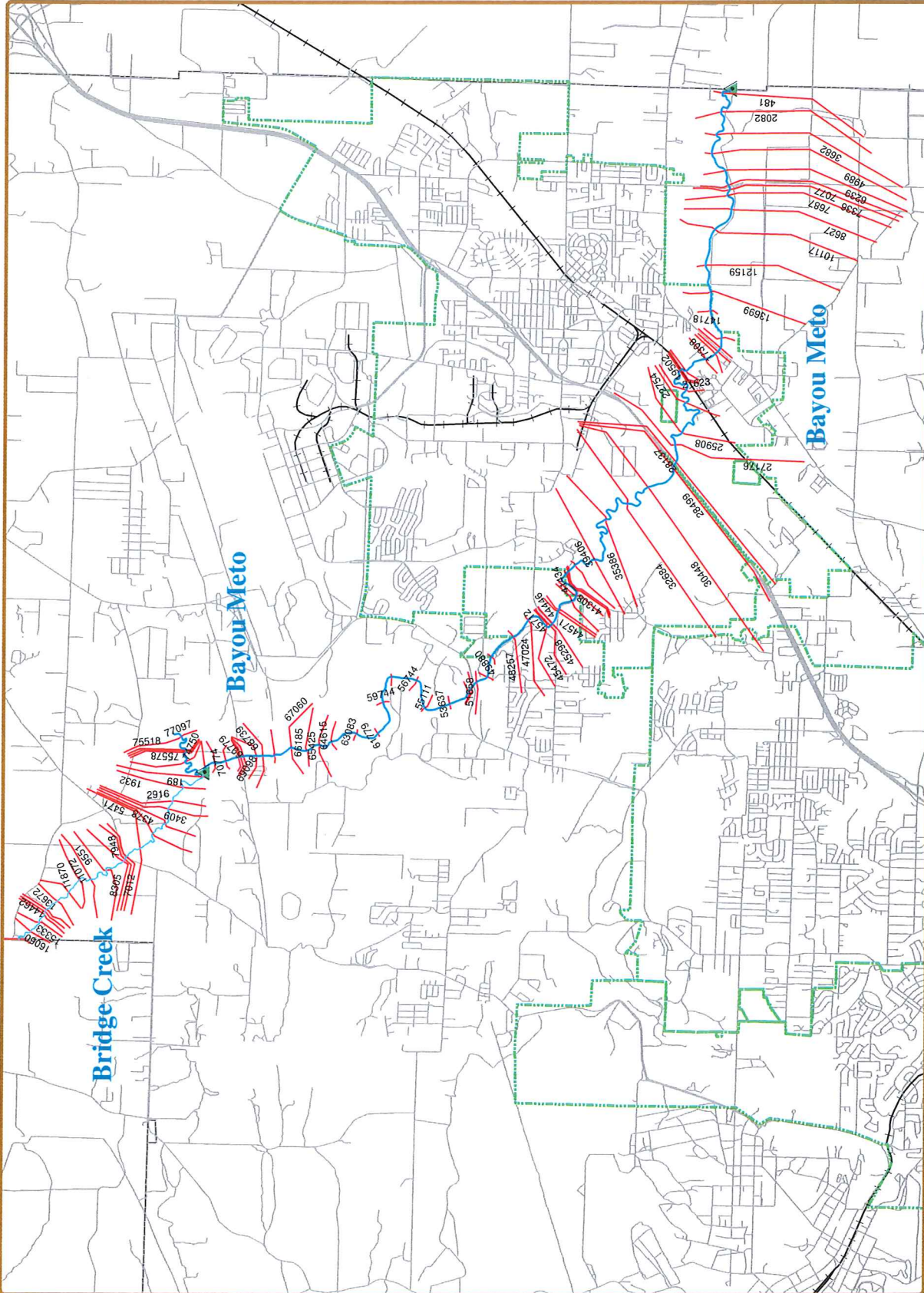


**Legend**

- S\_Streamcenterline
- X\_Scullines
- S\_Streamcrossline
- X\_Scullines\_revised



March 5, 2008





## APPENDIX

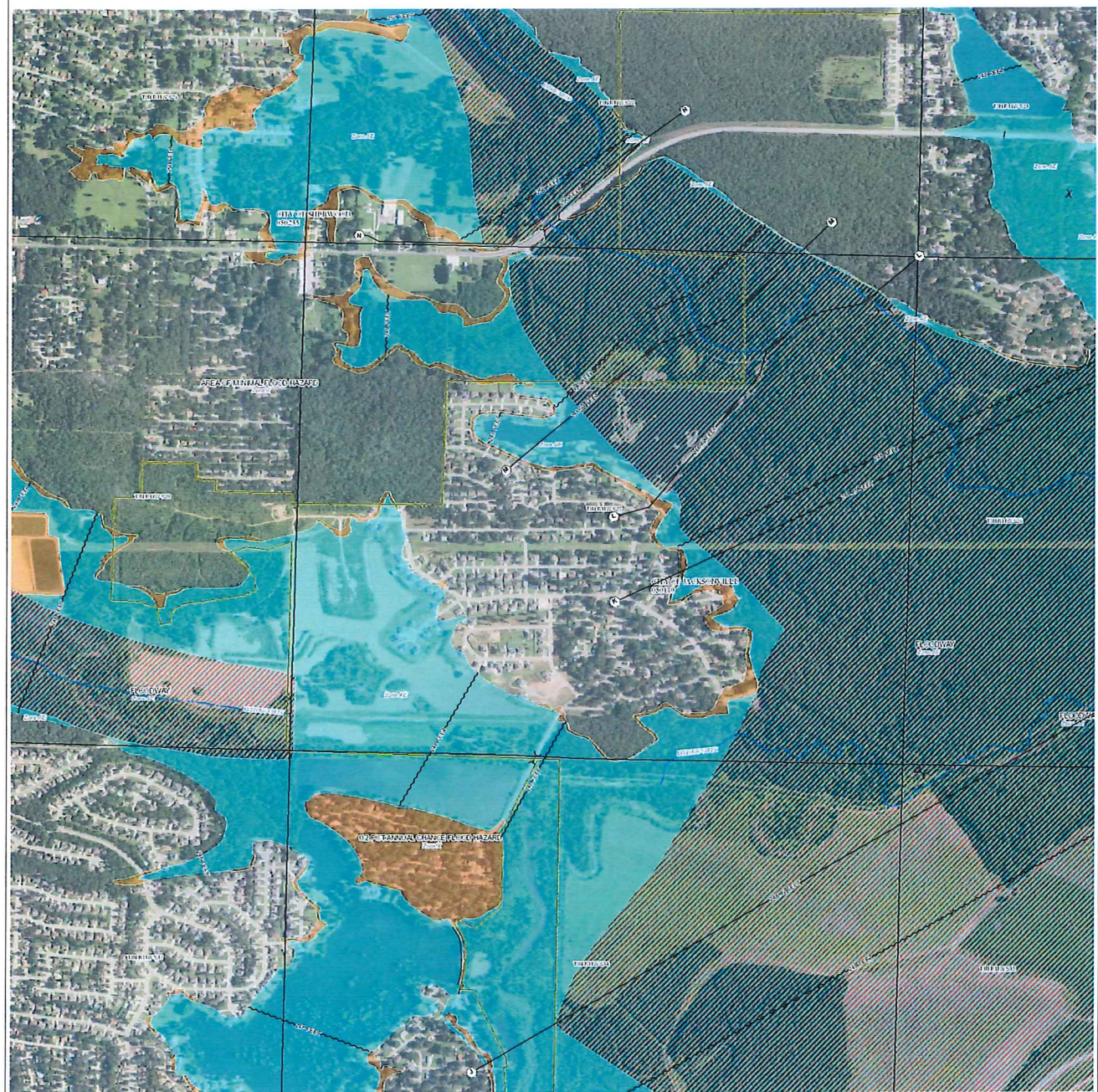
- Current FEMA FIS Map 05119C0356G (July 6, 2015)
- Current FEMA FIS Map 05119C0357G (July 6, 2015)
- Current FEMA FIS Flood Profiles, Bayou Meto panels 06P-09P











USGS The National Map, Orthometry Data refreshed April 2018  
345030871

**FLOOD HAZARD INFORMATION**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, A99 With BFE or Depth Zone AE, AH, VE, AP Regulatory Floodway
0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with average depth less than one foot or with drainage areas of less than one square mile, Zone X	
Future Conditions 1% Annual Chance Flood Hazard, Zone X	
Area with Reduced Flood Risk due to Levee See Notes, Zone X	
Area with Flood Risk due to Levee, Zone D	
NO SCREEN	Area of Minimal Flood Hazard, Zone X
	Effective LOMA
OTHER AREAS	Area of Undetermined Flood Hazard, Zone D
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
OTHER FEATURES	20.0 Cross Sections with 1% Annual Chance Water Surface Elevation 17.5 Coastal Trenchcut Coastal Trenchcut Baseline Profile Baseline Hydrographic Feature Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary

**NOTES TO USERS**

For information and questions about this Flood Insurance Rate Map (FIRM), as it applies to products associated with this FIRM, including historic versions, the current map, data for each FIRM panel, data for other products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information Exchange at 1-877-FEMA-4388 or visit the FEMA Flood Map Service Center website at <http://www.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of the map. Many of these products can be ordered or obtained on-line from the website. Communities desiring land adjacent FIRM panels may obtain a current copy of the adjacent panel as well as the current FIRM index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for the jurisdiction. To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-425-6242.

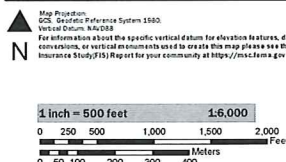
Base map information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAD 83 dated April 11, 2018.

This map was compiled from FEMA National Flood Hazard Layer (NFHL) on 05/20/2018 at 08:00 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL, an effective information may change or become superseded by more data over time. For additional information, please view the Flood Hazard Mapping Update Overview Fact Sheet at <http://www.fema.gov/media-library/assets/documents/113618>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map projection date, community identifier, FIRM panel number, and FEMA effective date.

**SCALE**



**NATIONAL FLOOD INSURANCE PROGRAM**

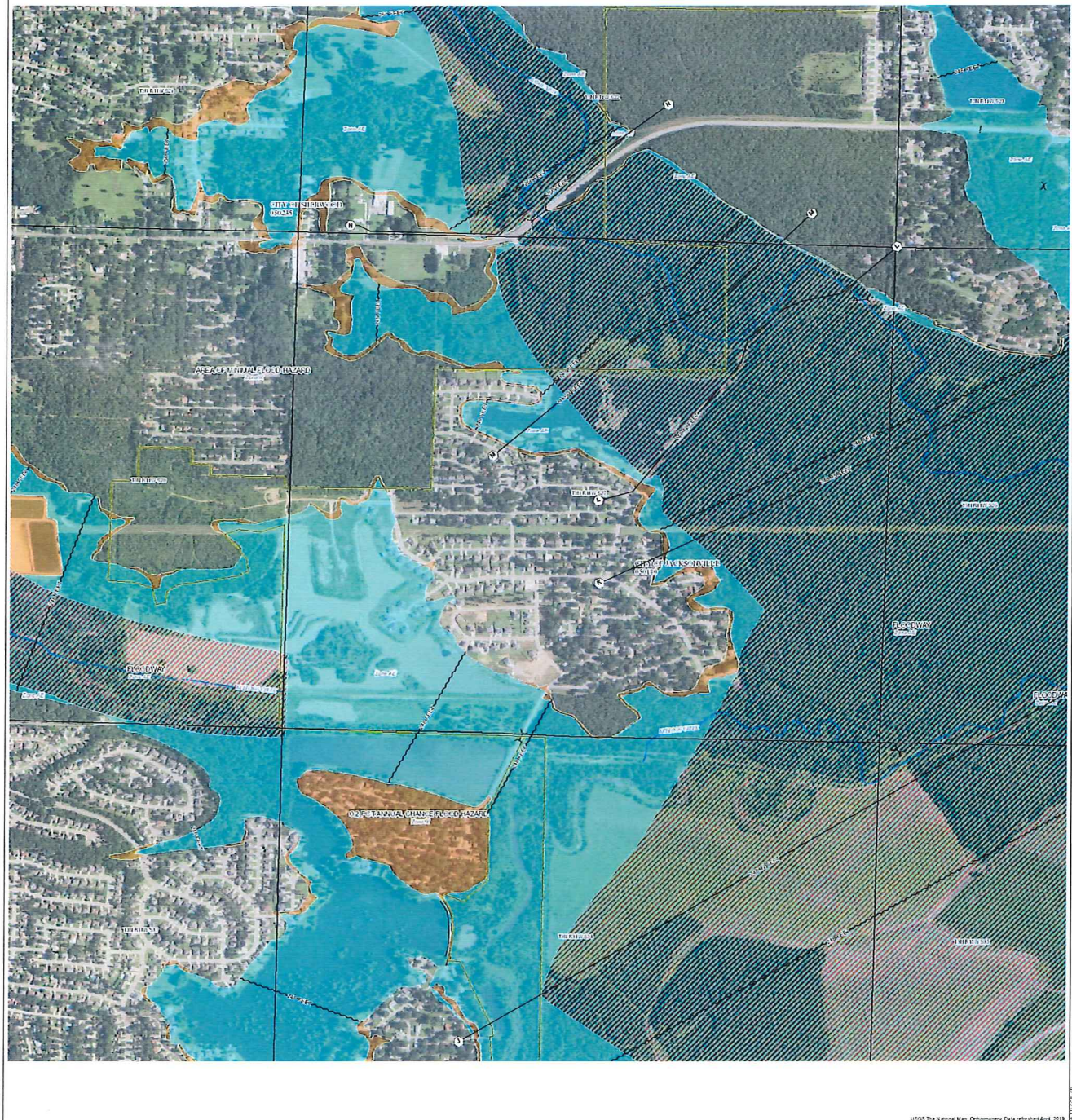
FLOOD INSURANCE RATE MAP

PULASKI COUNTY, ARKANSAS AND INCORPORATED AREAS  
PANEL 356 OF 635

Panel Number:	COMMUNITY	NUMBER	PANEL
	PULASKI COUNTY UNINCORPORATED AREAS	050219	0356
	ARKANSAS CITY OF SHERWOOD	050235	0356
	ARKANSAS CITY OF JACKSONVILLE	050240	0356

MAP NUMBER  
05119C0356G  
EFFECTIVE DATE  
07/05/2015





USGS The National Map, Orthorectified Data refreshed April, 2019  
345933.B71

**FLOOD HAZARD INFORMATION**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

<b>SPECIAL FLOOD HAZARD AREAS</b>	Without Base Flood Elevation (BFE) Zone A, X, & B With BFE or Depth Zone AE, AH, VE, A0 Regulatory Floodway
<b>OTHER AREAS OF FLOOD HAZARD</b>	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with an average area of less than one square mile Zone X Flood Conditions 1% Annual Chance Flood Hazard Zone X Area with Reduced Flood Risk, due to Levee Sea Walls Zone X Area with Flood Risk due to Levee Zone D NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMBs Area of Undetermined Flood Hazard Zone D
<b>OTHER AREAS</b>	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
<b>GENERAL STRUCTURES</b>	20.2 Cross Sections with 1% Annual Chance 17.2 Water Surface Elevation Coastal Transect Coastal Transect Baseline Profile Baseline Hydrographic Feature Base Flood Elevation Line (BFE)
<b>OTHER FEATURES</b>	Limit of Study Jurisdiction Boundary

**NOTES TO USERS**

For information and questions about this Flood Insurance Rate Map (FIRM), or data products associated with this FIRM including historic versions, the current map date for each FIRM panel, how to order panels, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information Center at 1-877-FEMA-MAP (377-26-2627) or visit the FEMA Flood Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued editions of Flood Hazard, Flood Insurance Study, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Communities purchasing an adjacent FIRM panel may obtain a current copy of the adjacent panel as well as the current FIRM data. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and statewide map data refer to the Flood Insurance Study Report for this jurisdiction. To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6303.

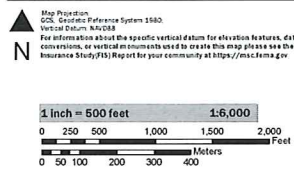
Elevation information shown on the FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NASD, dated April 11, 2018.

This map was acquired from FEMA's National Flood Hazard Layer (NFHL) on 10/29/2018 at 10:48 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL's accuracy information may change or become superseded by new data over time. For additional information, please visit the Flood Hazard Mapping Update's Overview Fact Sheet at <https://www.fema.gov/media/doing-your-part/communities/15418>.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

This map image void if one or more of the following map elements do not appear in basemap imagery: flood zone labels, legend, scale bar, map creation date, community identifier, FIRM panel number, and FIRM effective date.

**SCALE**

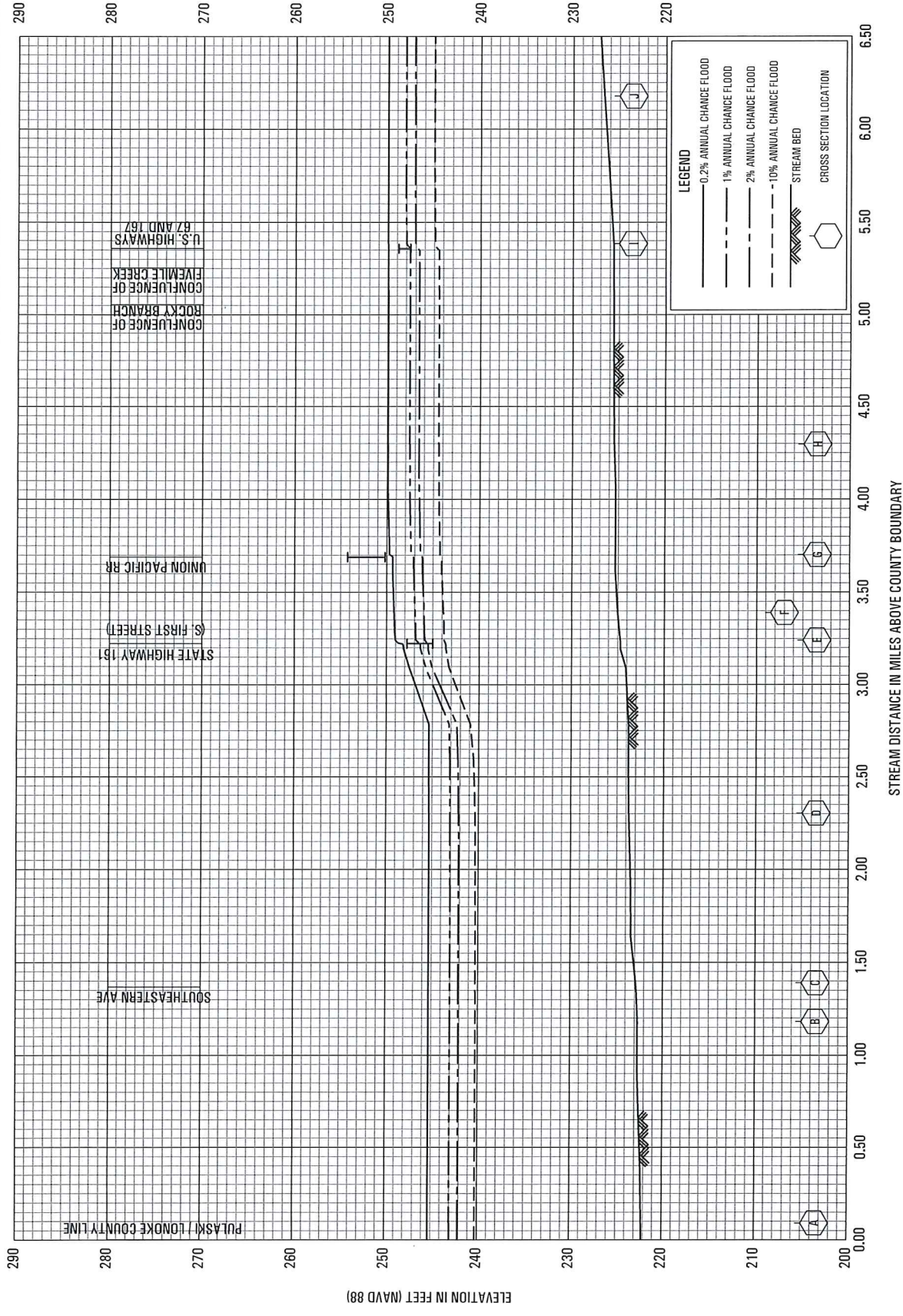


**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP  
**PULASKI COUNTY, ARKANSAS**  
**AND INCORPORATED AREAS**  
PANEL 356 of 635

COMMUNITY	NUMBER	PANEL
PULASKI COUNTY UNINCORPORATED AREAS	050216	0356
ARKANSAS CITY OF SHERWOOD	050235	0356
ARKANSAS CITY OF JACKSONVILLE	050280	0356

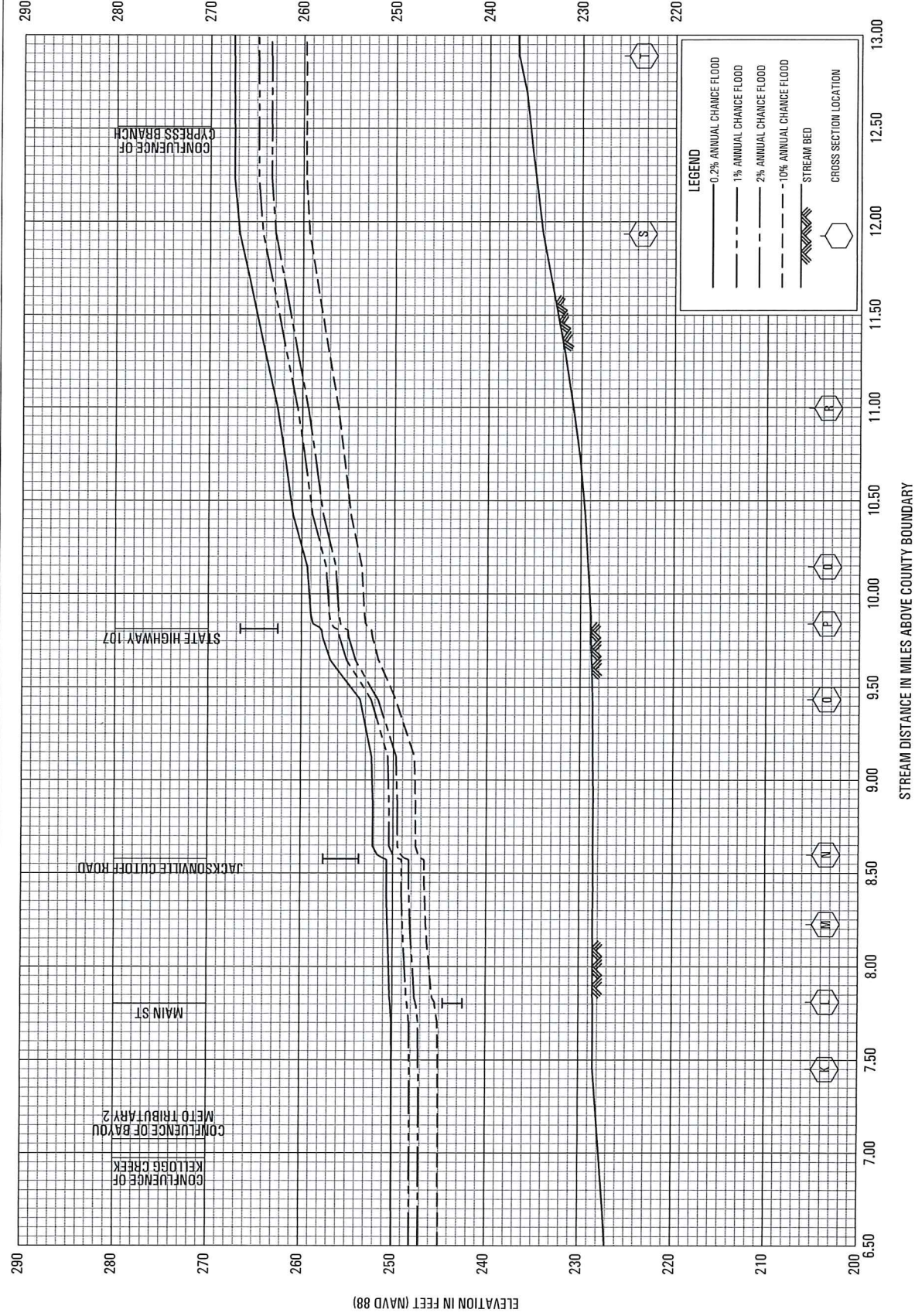
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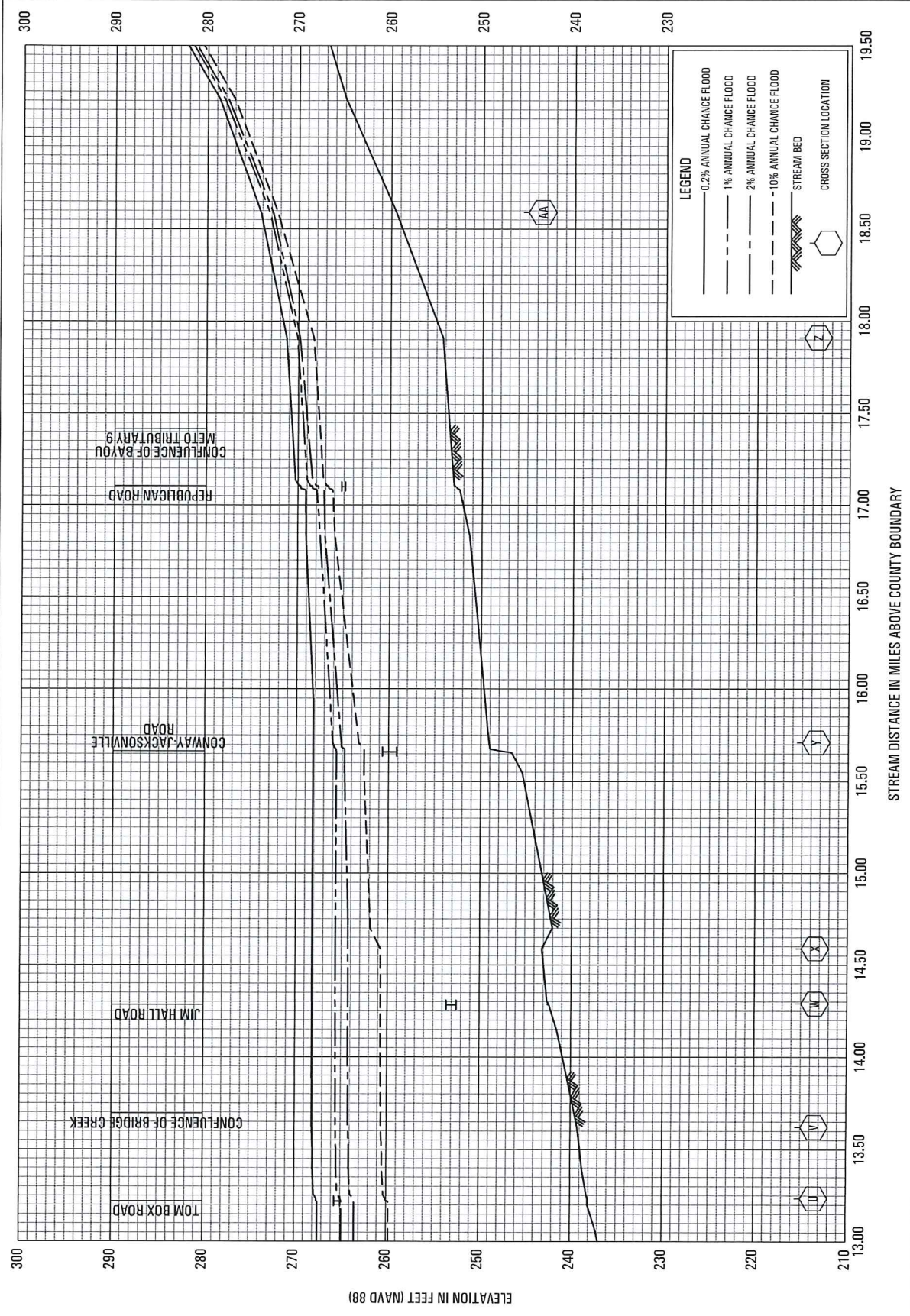


FLOOD PROFILES  
BAYOU METO





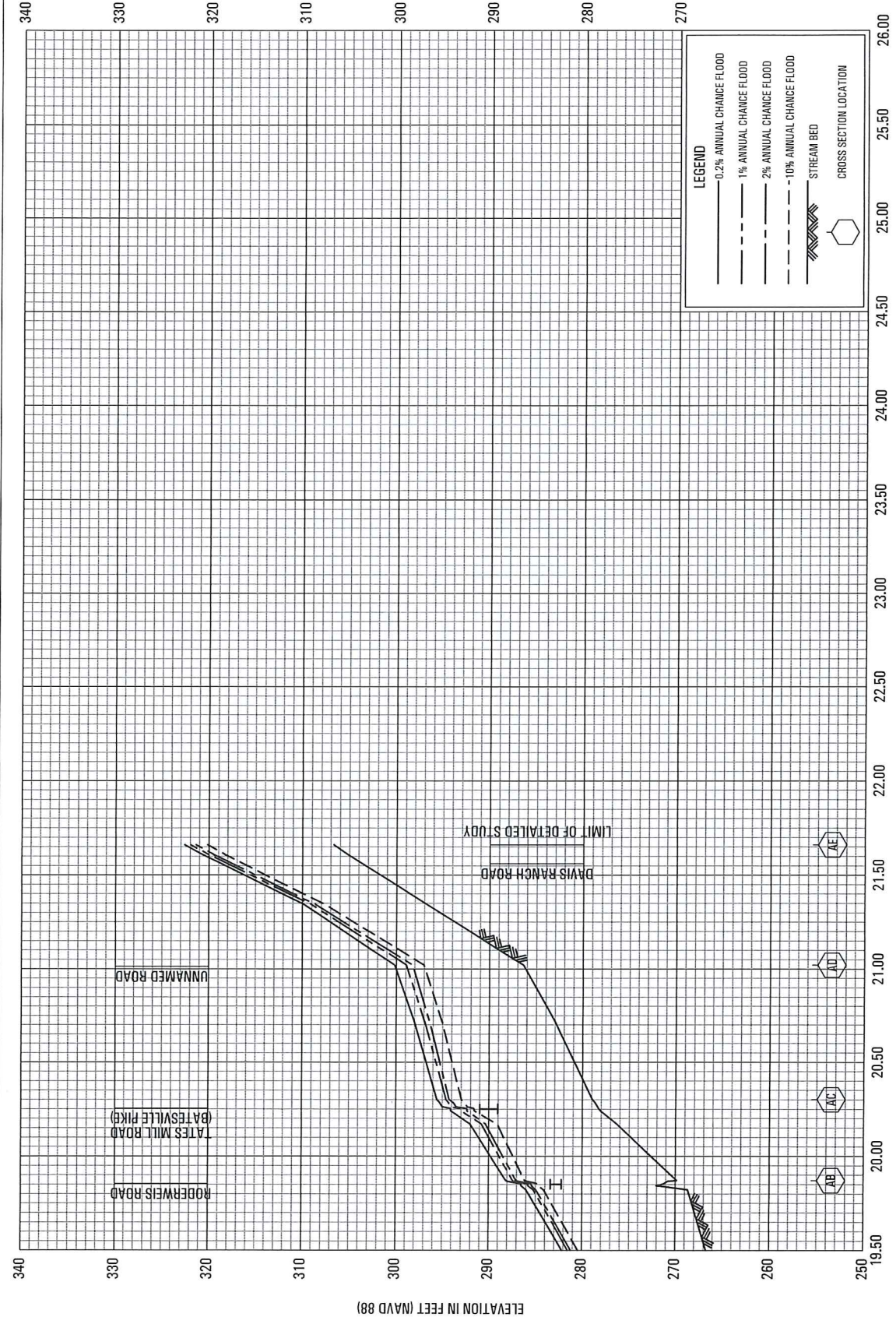
FLOOD PROFILES  
BAYOU METO



ELEVATION IN FEET (NAVD 88)

STREAM DISTANCE IN MILES ABOVE COUNTY BOUNDARY



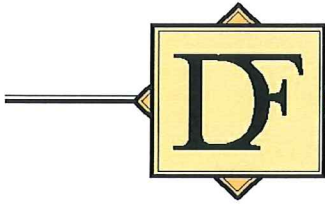


STREAM DISTANCE IN MILES ABOVE COUNTY BOUNDARY

ELEVATION IN FEET (NAVD 88)

## APPENDIX

- The Legacy Centers of Dupree Farms



***The Legacy Centers of Dupree Farms***

*Mixed use Development Site*

*Located in an eleven county Little Rock, AR, MSA area*

*Containing 1,000,000 residents*

*Commercial Mixed-Use Proposed Development:*

*This unique 1,400 acre site known as “Legacy Centers of Dupree Farms”, is located in the City of Jacksonville at a major transportation crossroads, i.e. where federal highway 67/167 and the I440 North Belt Freeway connector intersect.*

*The initial Project feasibility study conducted by RCL of Atlanta GA, indicated excellent potential in the project mix of (a) regional retail mall, (b) high rise office buildings, (c) small professional business centers, (d) hotels, (e) golf course, (f) multi-family units, (g) specialty retail and entertainment businesses and (h) some light industrial on the periphery. All developers contracting to build out any portion of the project will be required to follow a high standard controlling master land plan designed for the property owner, (DBLTD Limited Partnership), by the Edward D. Stone & Associates firm of Ft. Lauderdale, FL (EDSA).*

*Market Study Summary 2002 updated 2007:*

- *The initial project feasibility study was completed in January, 2002 and updated in 2007 by Managing Partner, Gregg Logan of the Robert Charles Lessor firm, Atlanta, GA.*

*Development recommendations were based upon a comparative analysis of land use. Out of several criteria used by RCL in the comparative analysis, the Legacy Center of Dupree Farms property development categories of retail, hotel, business parks, office space, multi-family, golf, light industrial and entry level residential, received the highest achievable rating or (5) as to interstate access, ingress/egress of site, visibility/frontage, traffic counts and level site. With regard to the criteria of Proximity to Airport and Rail, a rating of (4) was received for all development types.*



Summary of Central Thematic Vision  
of Land Owners for  
Legacy Centers of Dupree Farms

The following ideas were integrated into the Master Plan designed for this project by  
Doug Smith of the Edward D. Stone & Associates firm, Fort Lauderdale, FL.

1. Theme

Master land plan will showcase the southern French architectural and horticultural and landscaping elements evident in city/village/town center historical records of the Arkansas/Louisiana territory stemming from the influence of early French explorers, traders and farm families who settled this area.

2. Landscaping for Total Project

Emphasis to be placed on the beauty found in the trees and plants indigenous to lowland areas along Bayous in both Arkansas and Louisiana. The overall plan will integrate and enhance the aesthetic and conservational aspects of wetlands adjacent to the property.

3. Parks and Trails

Man made water areas surrounding the project are designed to work aesthetically with the existing and/or planned nature trails, biking trails and park areas owned by DBLTD Limited Partnership, and the City of Jacksonville and the County of Pulaski, lying along the Bayou Meto, a navigable waterway contiguous to the northern boundary line of the Legacy Center of Dupree Farms site and running east of Highway 67/167.

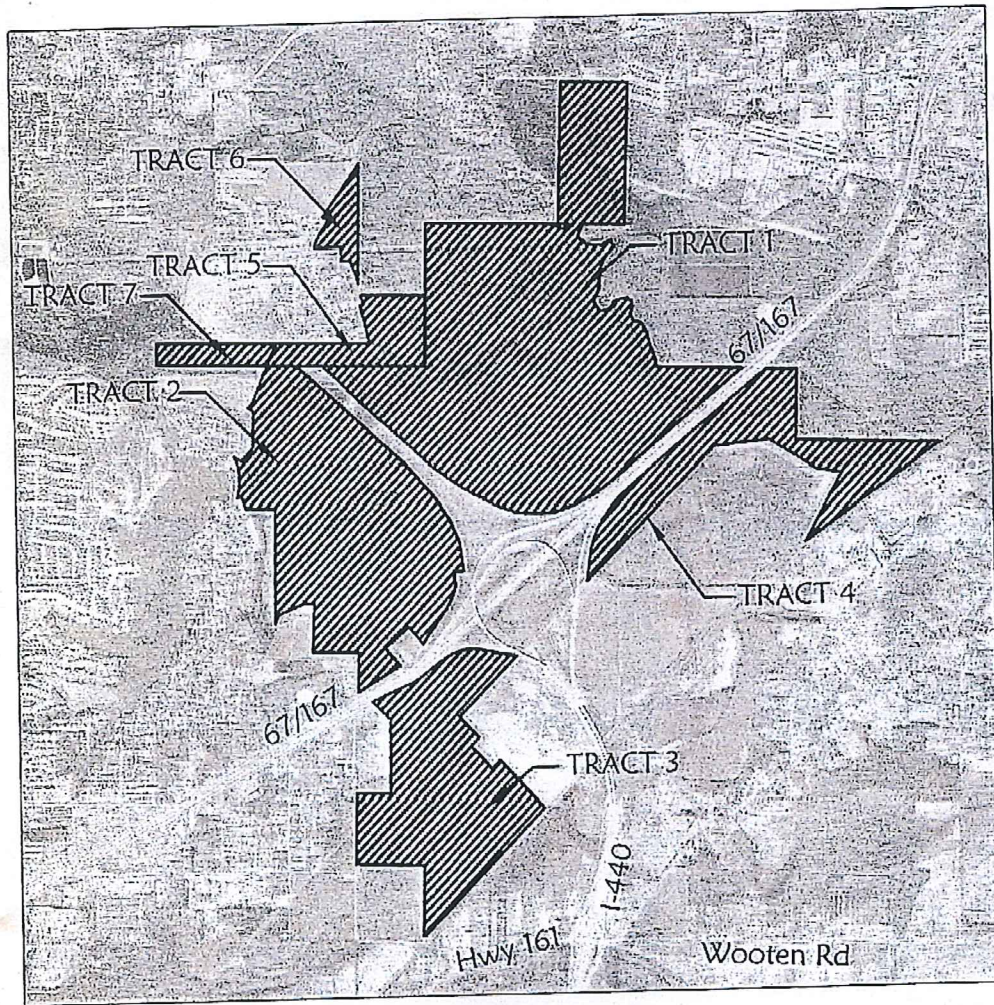
4. Transit Center Plans and Town Center Plans

A small transportation center, bike paths, walking paths and hiking trails incorporated into the plan, ensure good traffic flows to and from the business, corporate, retail and multi-family areas. An underlying southern/French “turn of the 20th century” village look and feel will dominate the project. For example, landscaped pedestrian walkways with well lighted small park benches or rest areas are included as effective design elements to make the overall project a safer and more inviting place to work or shop.

5. Battleground Park – Reed's Bridge

Reed's Bridge Civil War Battleground site listed on the national historic register, a 412 acre core battlefield area located along the Bayou Meto east of the Legacy Centers of Dupree Farms project site, will be promoted as one of the Legacy Center tourist attractions by marketing materials and project site tourism office employees and docents. The Battleground park area and future museum building for Reed's Bridge will be emphasized in the Legacy Centers marketing to ensure integration of the tourist appeal to the overall project and to the city of Jacksonville's park system, as well as the county's hiking and biking trail system running along the Bayou Meto adjacent to the Legacy Center green areas.





VICINITY MAP

**Owner: DBLTD Limited Partnership** (formerly Dupree Brothers Limited Partnership)  
 Four Quadrants: Total acres 1,423.952 acres

**NW Quadrant**

- Tract 1 contains 626.01 acres
- Tract 5 contains 54.08 acres
- Tract 6 contains 20.413 acres
- Tract 7 contains 21.067 acres

**SW Quadrant**

- Tract 2 contains 346.366 acres

**NE Quadrant**

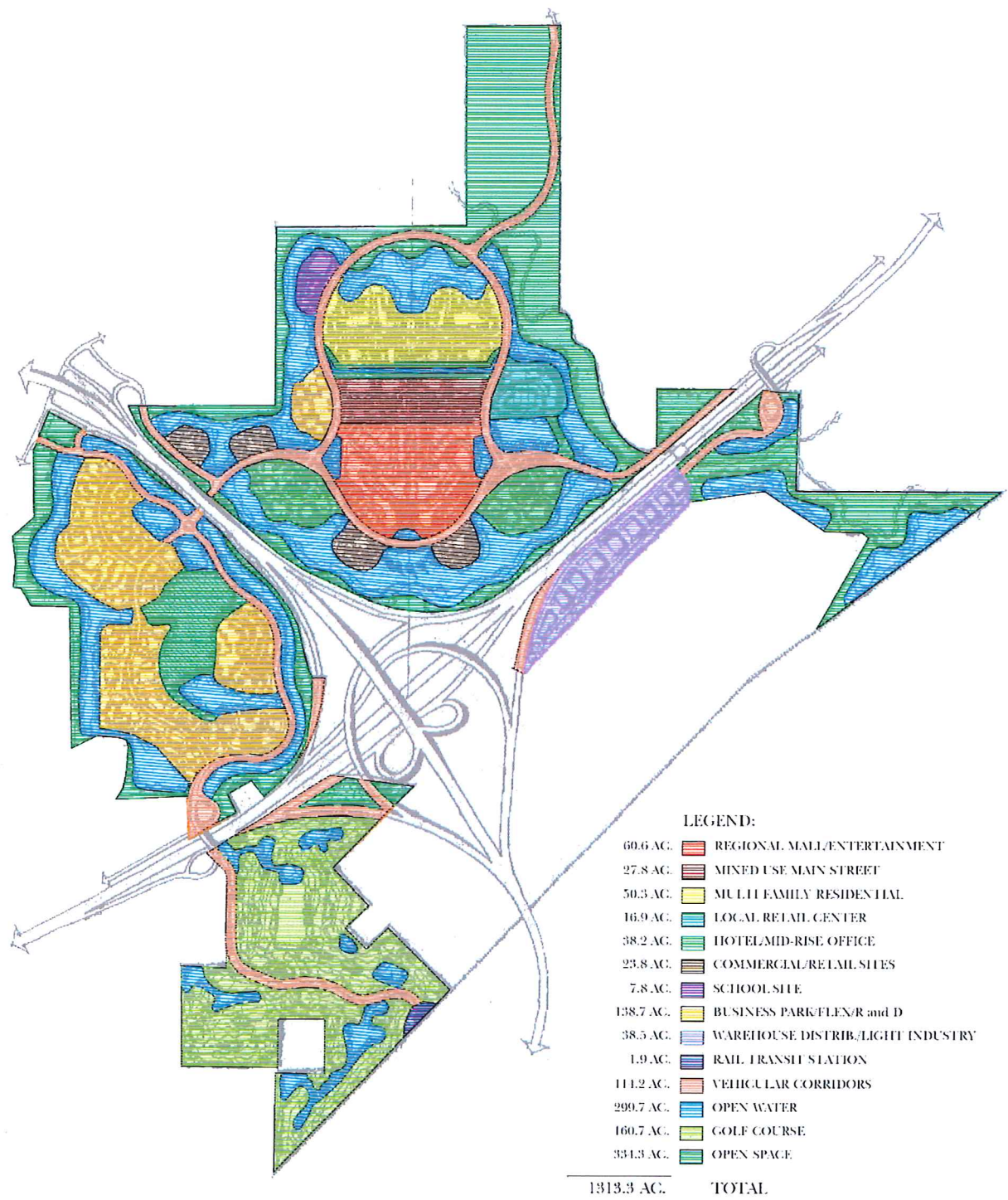
- Tract 4 contains 133.016 acres

**SE Quadrant**

- Tract 3 contains 223 acres



EDSA Plan – Legacy Centers of Dupree Farms – Product Placements



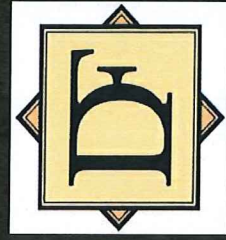


Master Plan for

# Legacy Centers

Dupree Farms  
Jacksonville, Arkansas

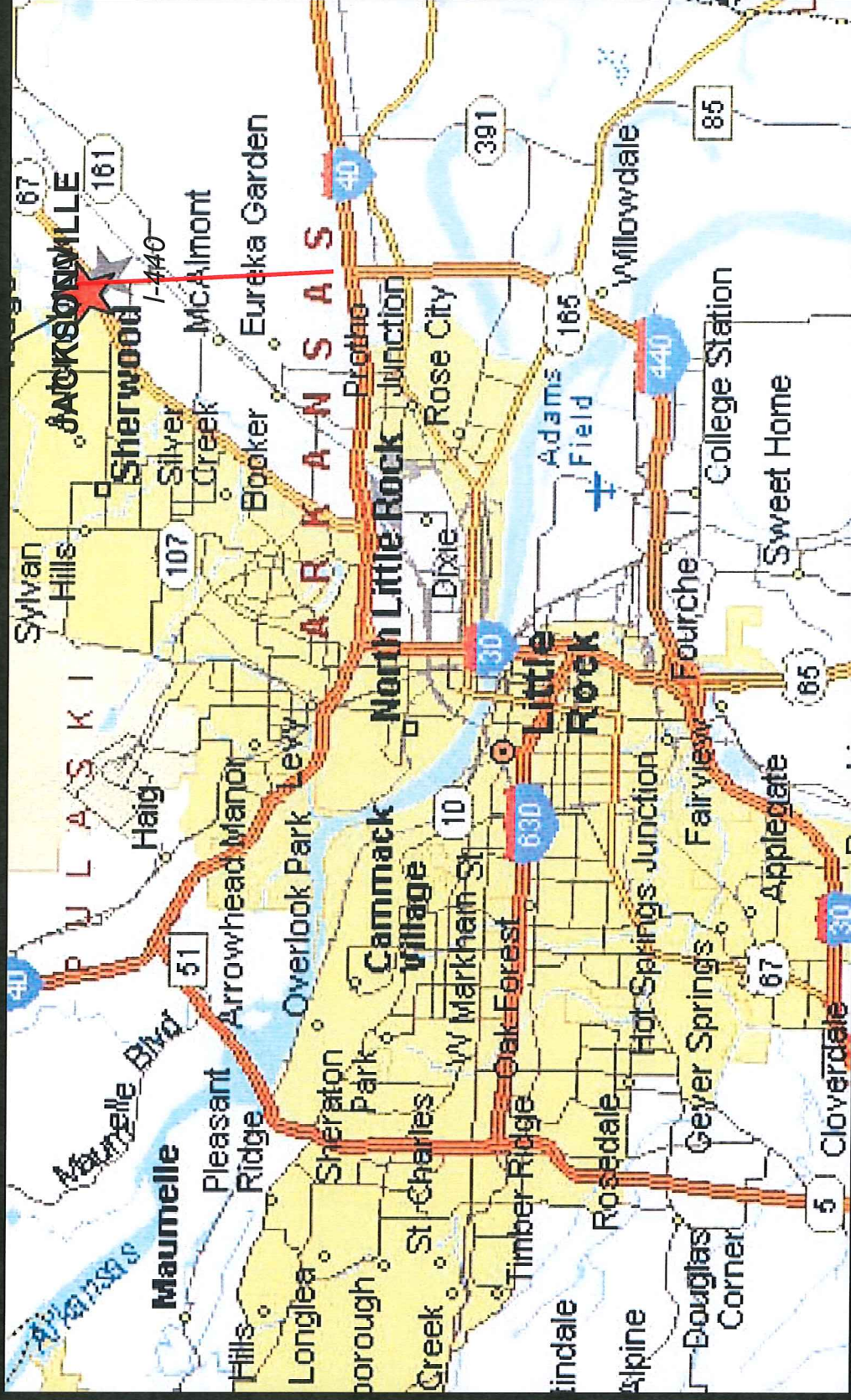
October 1, 2003



EDSA



# Dupree Property

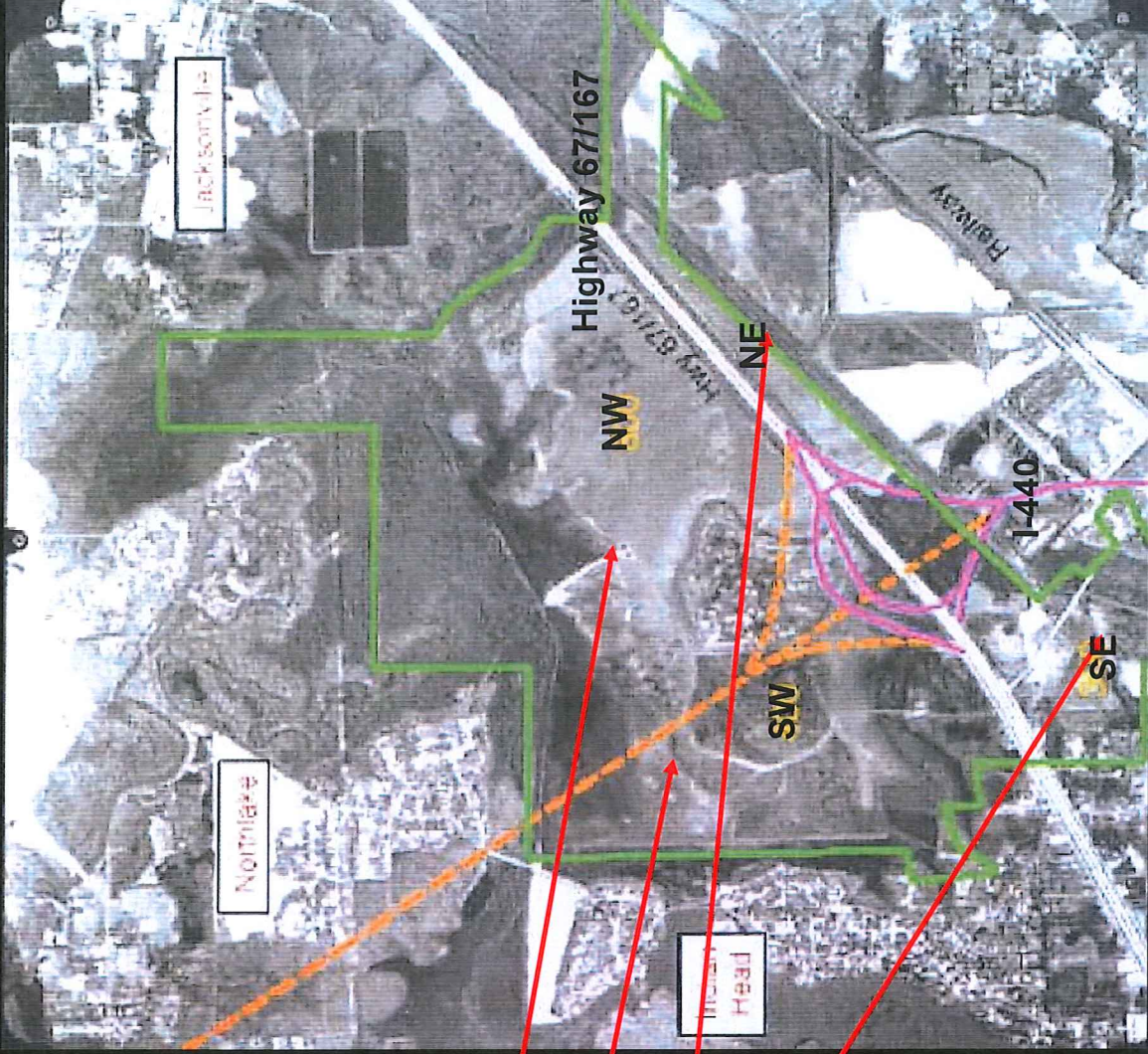




# Dupree Farms Property

C-4 Commercial  
City of Jacksonville

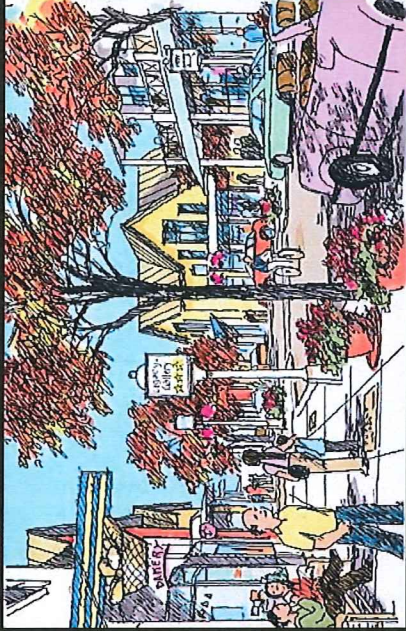
Northwest	640 a
Southwest	320 a
Northeast	130 a
Southeast	223 a
<b>Total Area</b>	<b>1,313 a</b>



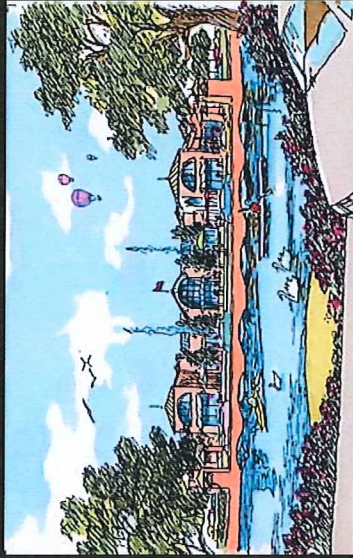


# Presentation

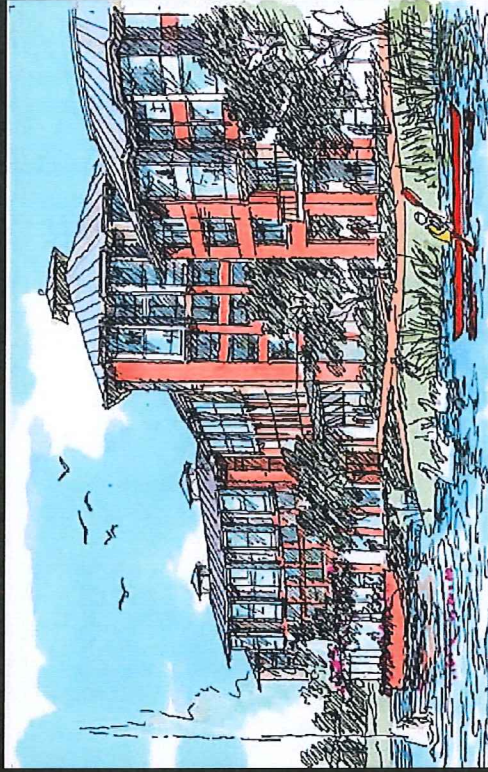
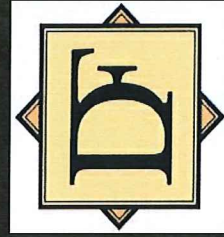
- Design concepts



Legacy Center Main Street



Legacy Center Life Style and Entertainment District



Legacy Center Corporate Business Center



# Vision for the Legacy Centers of Dupree Farms Development

- Landmark community within the region
- Mixed use commercial and residential community
- Community with historical character and sense of place
- Sustainable environmental and community planning approach



## Planning Principles

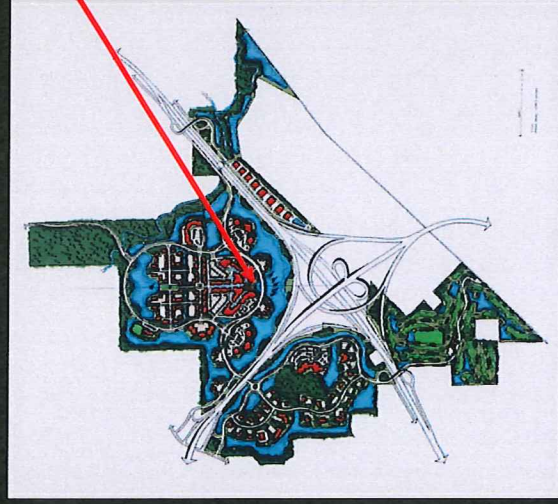
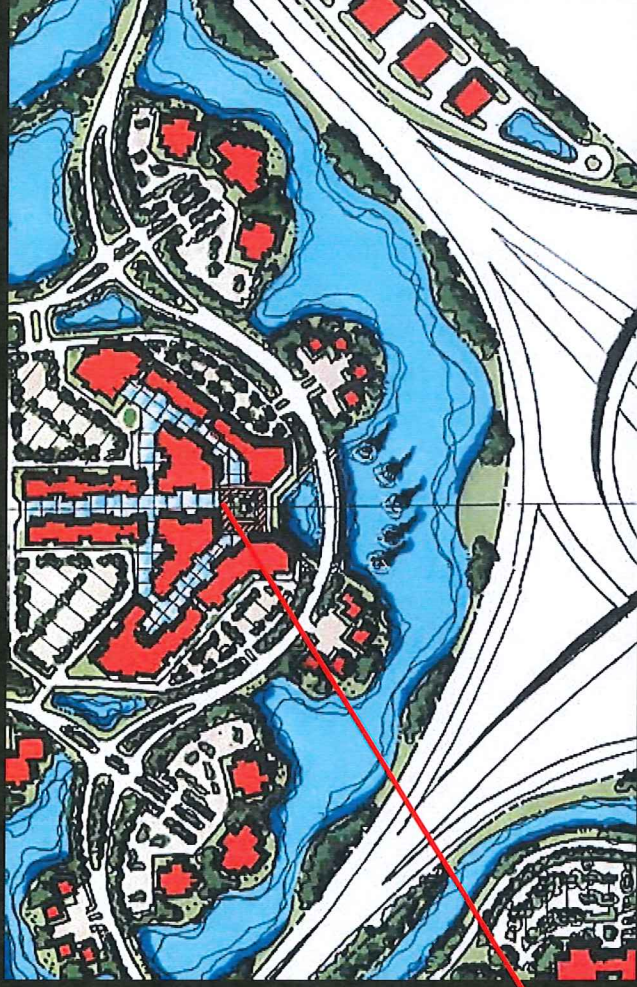
- A new mixed-use community served by highways rather than highways with development





## Planning Principles

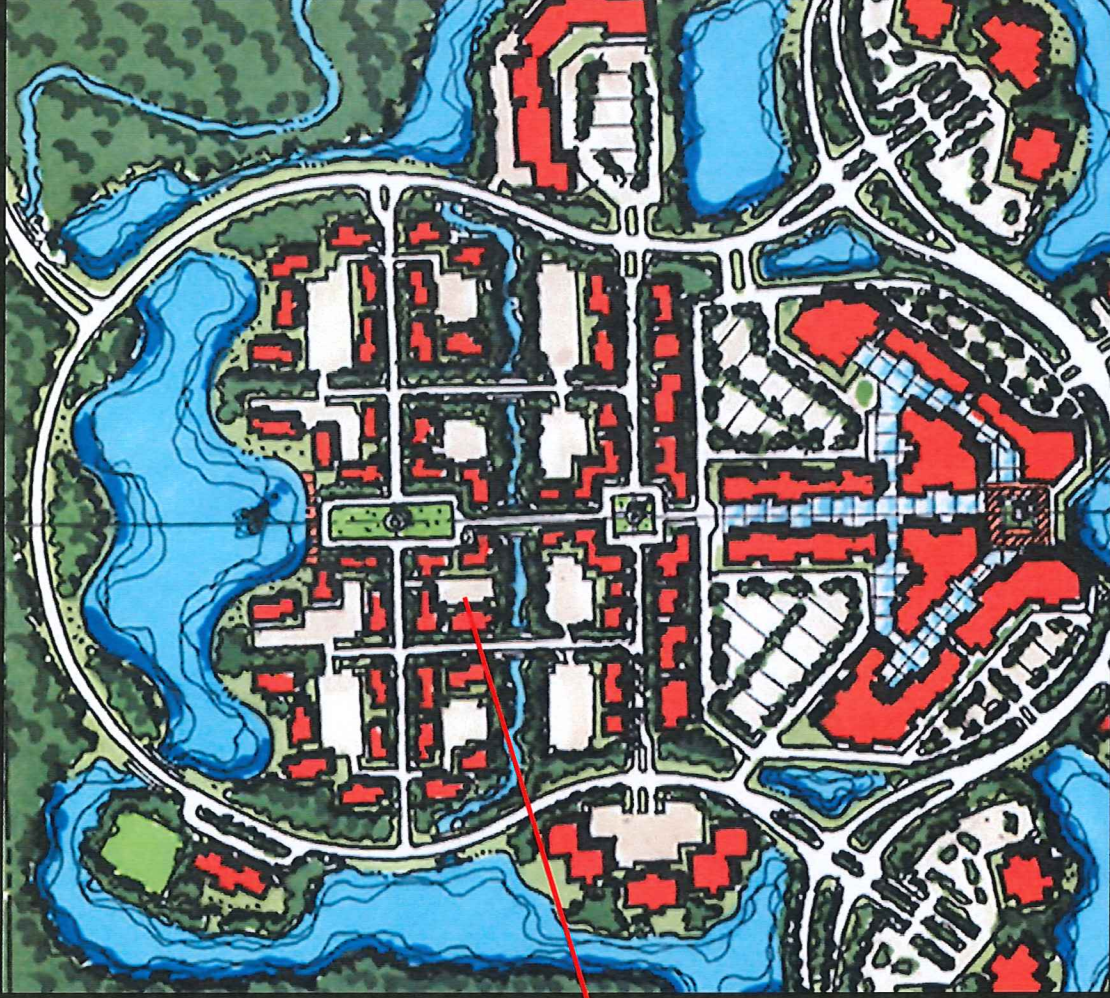
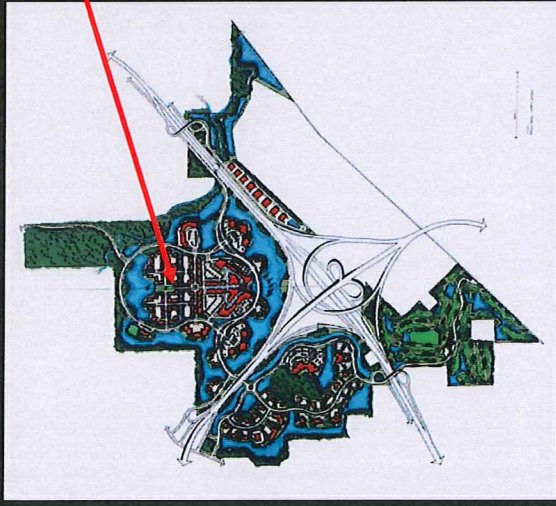
- Embrace the architecture of the highway





# Planning Principles

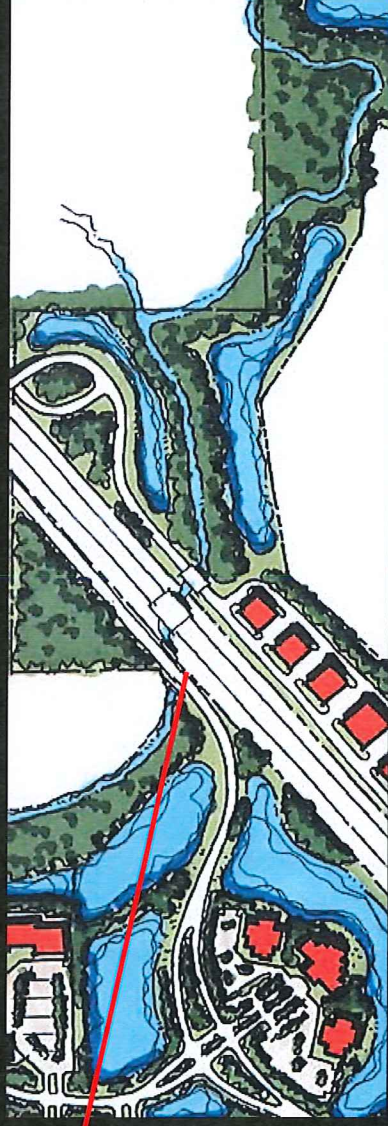
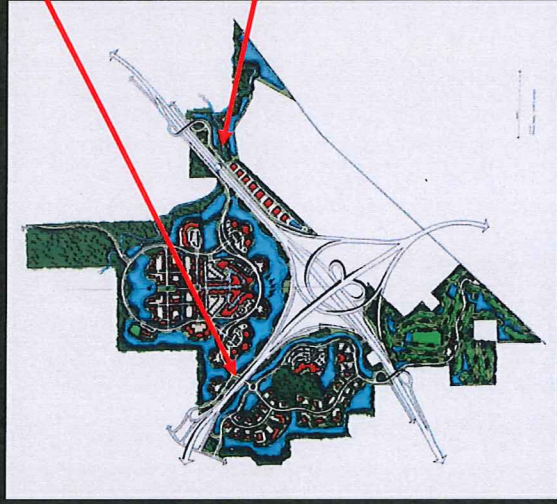
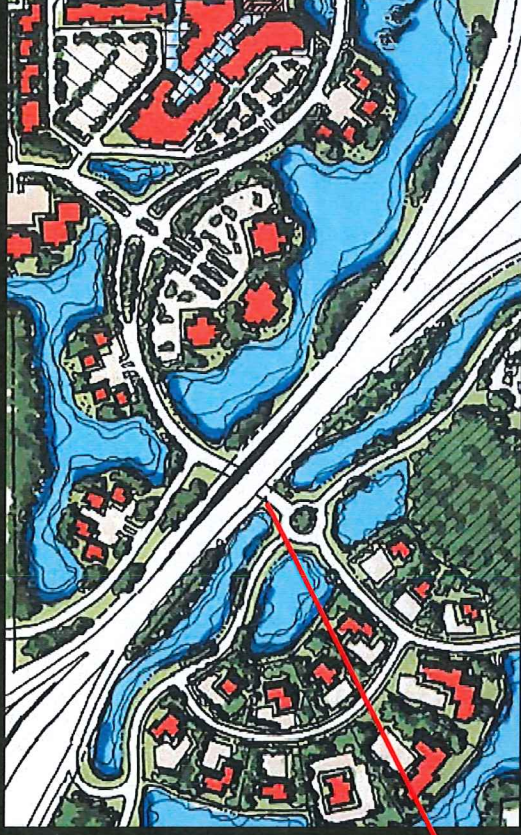
- Pedestrian oriented main street and neighborhoods with historical town form and architecture





# Planning Principles

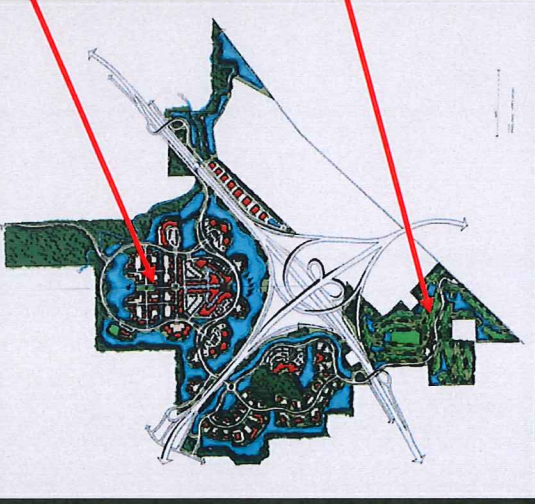
- Connectivity within the community and to the surrounding town and region





# Planning Principles

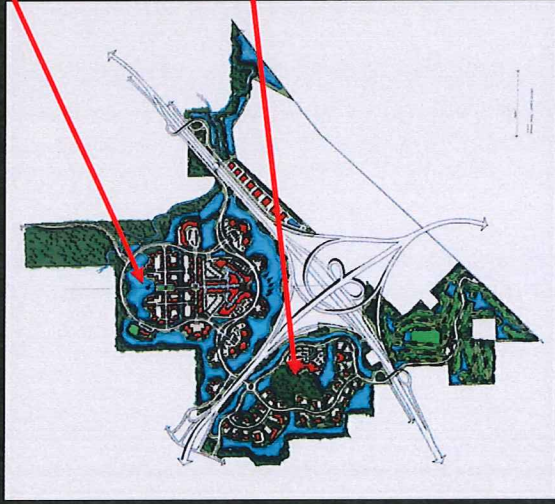
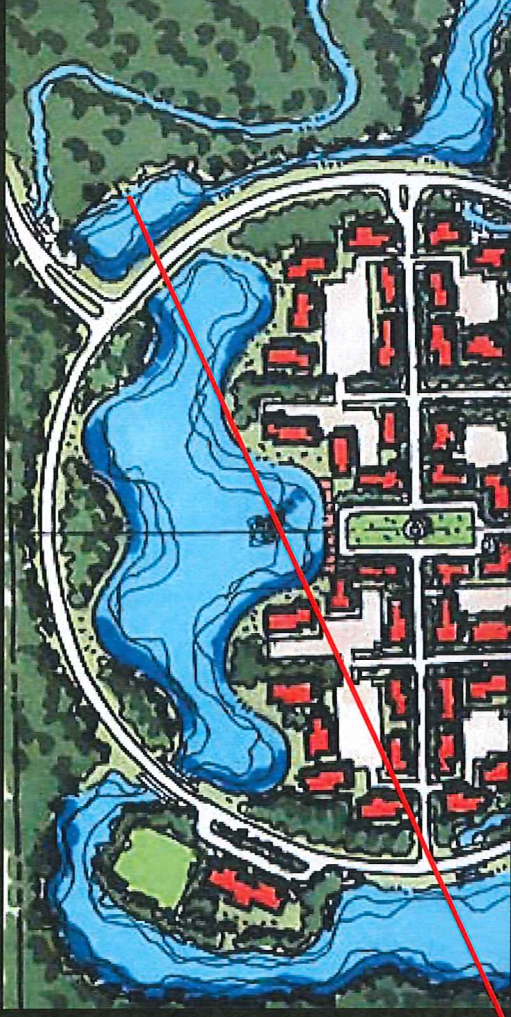
- Open space, parks and pedestrian ways





# Planning Principles

- Integration of natural areas





# Development Program

Regional retail and entertainment

Local retail

Residential – Multi Family and Garden Homes

Office Business District and R&D Corporate Center

Flex Business Park

Open space

Recreation areas

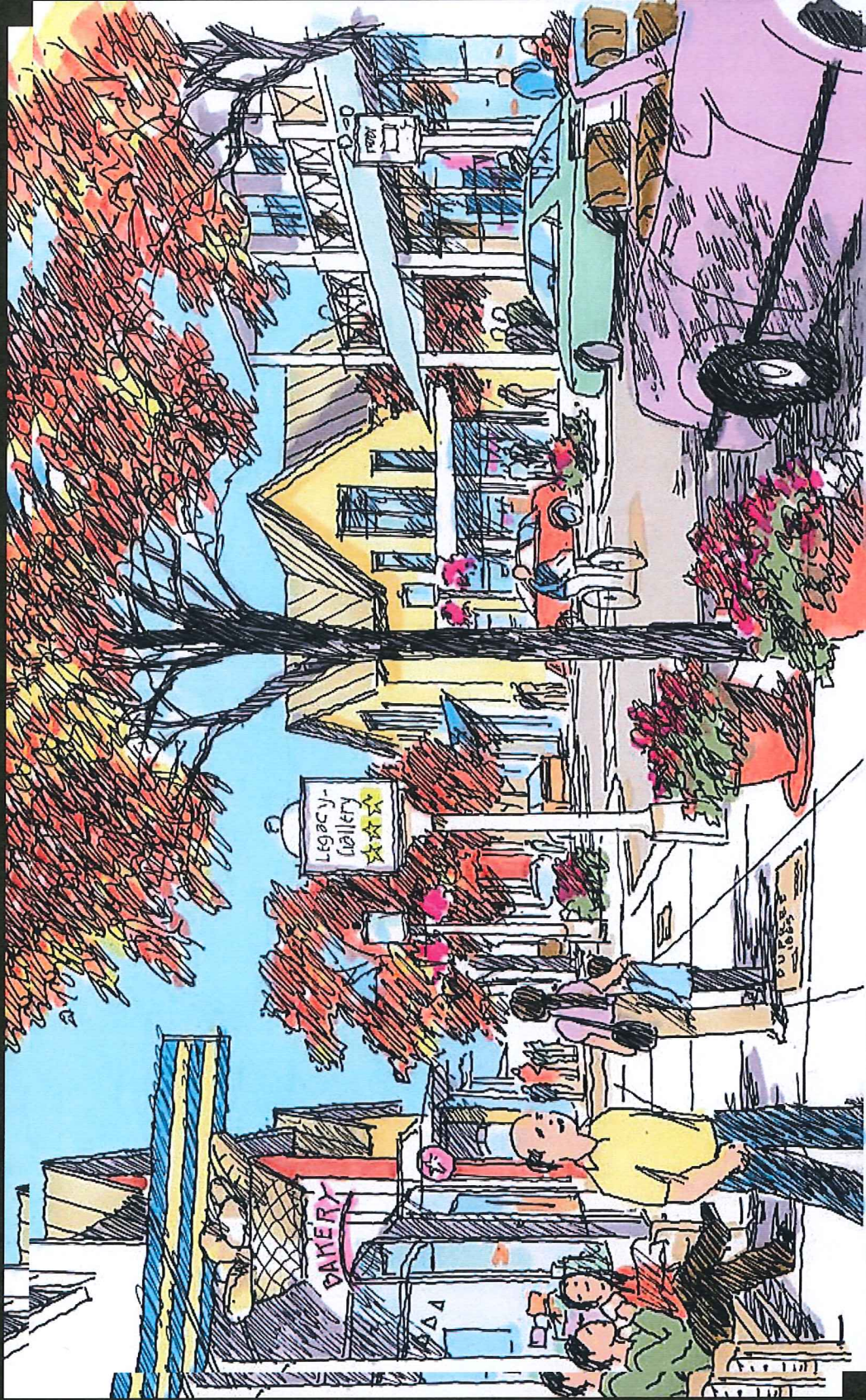


# Design Concept – Regional Retail





# Design Concept- Main Street Retail





# Design – Main Street retail



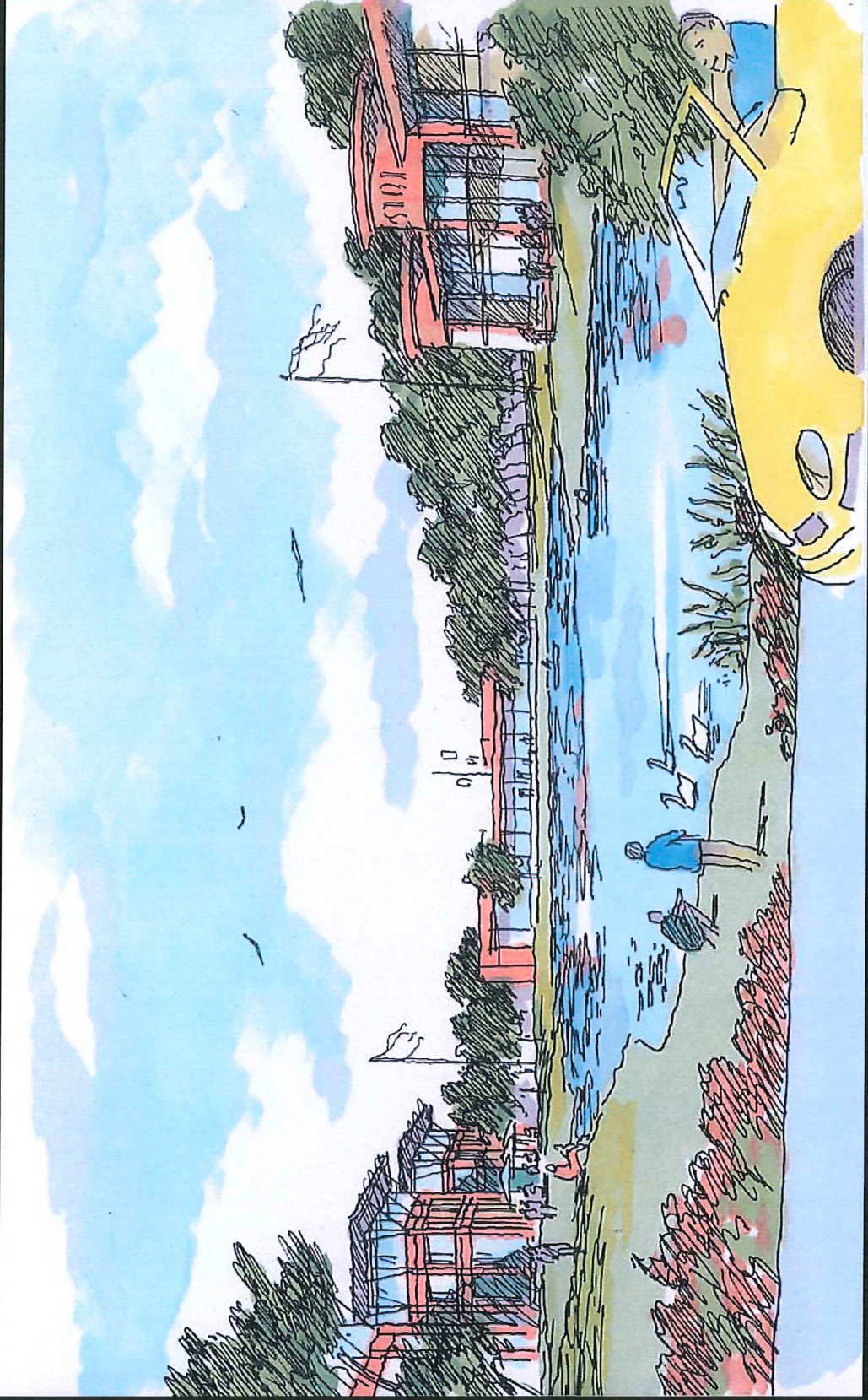


# Design – Office Campus





# Design – Office Campus





# Design – Residential neighborhoods





# Design - Parks



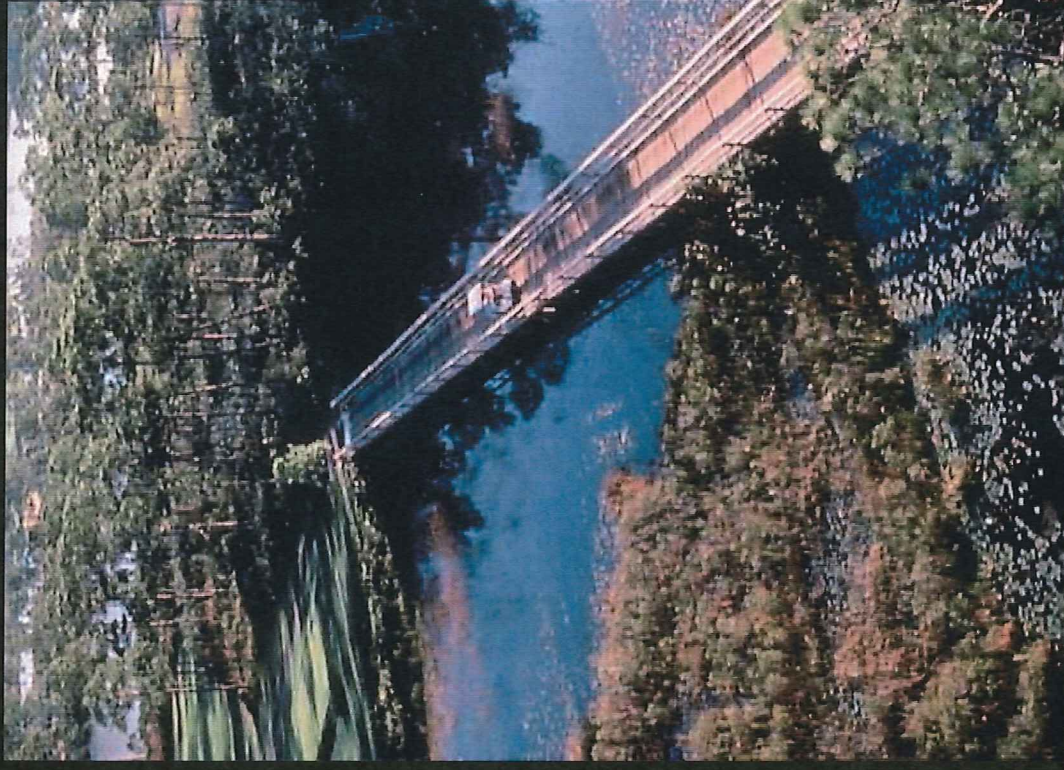


# Design – Natural areas



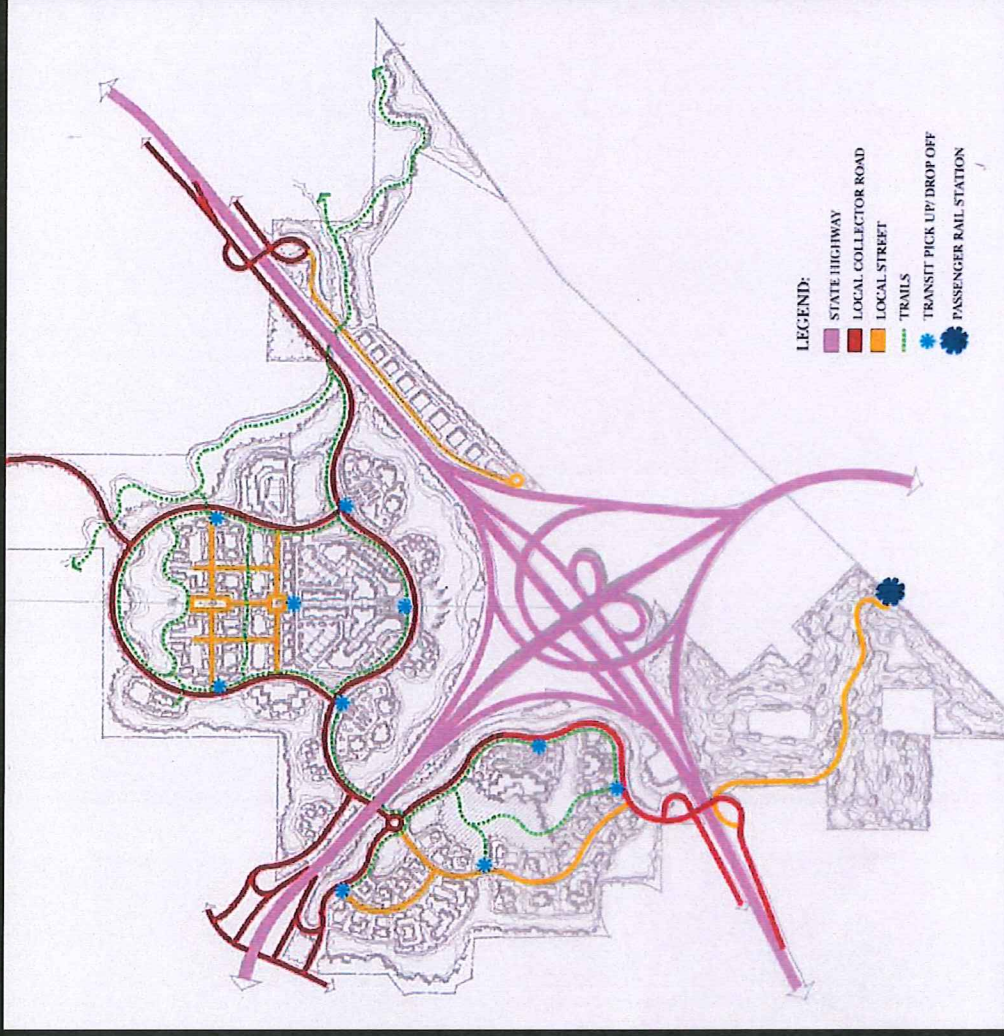


# Design – Natural areas



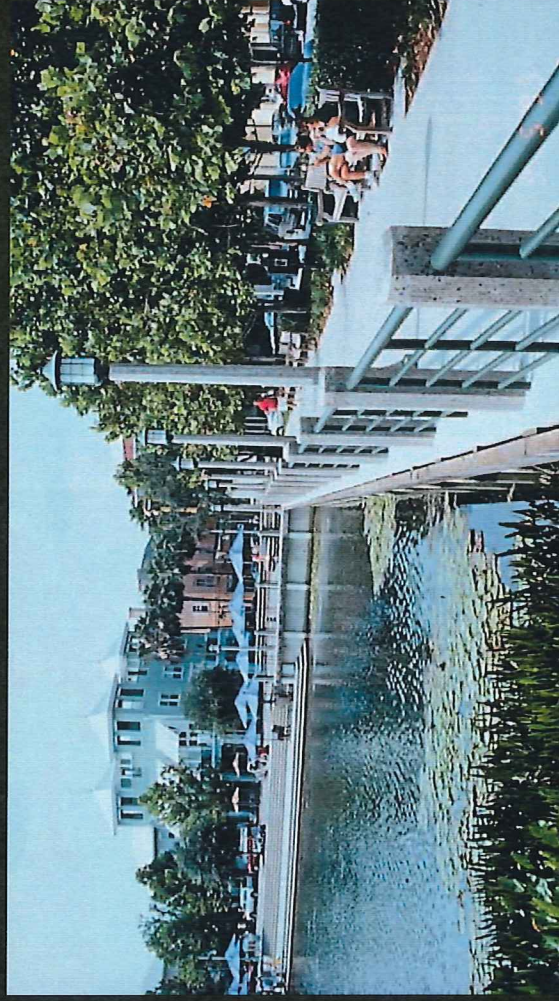


# Design - Connectivity





# Design - Connectivity





# Planning Process Steps

- Analysis – physical, market and cultural
- Master planning
  - Concept
  - Preliminary
  - Final
- Master plan engineering
- Government approvals
- Financial planning
- Design and implementation

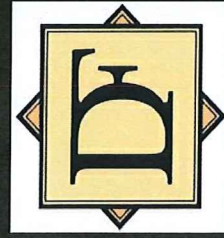


Master Plan for

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