

**FLOODPLAIN INFORMATION**  
 ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP (FIRM) FOR FORT BEND COUNTY, TEXAS, MAP NO. 48157C0105L REVISED/DATED APRIL 2, 2014, THE SUBJECT TRACT APPEARS TO LIE WITHIN UNSHADED ZONE "X".

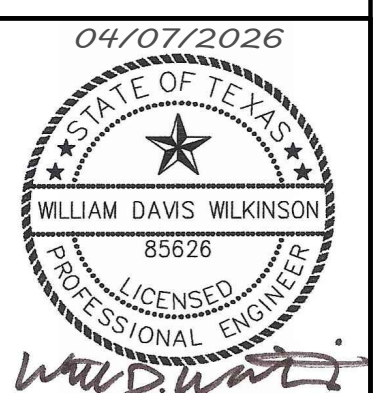
**BENCHMARK NOTES**  
 BENCHMARK: HARRIS COUNTY FLOODPLAIN REFERENCE MARK RM NO. 190045 BEING A BRASS DISC STAMPED "190045" LOCATED ON A BRIDGE OVER BUFFALO BAYOU, APPROXIMATELY .5 MILES WEST FROM THE INTERSECTION OF CINCO RANCH BOULEVARD AND WESTHEIMER PARKWAY, PUBLISHED ELEVATION - 115.25.

TBM 3: BEING A BOX CUT ON THE BACK OF A CURB LOCATED FROM THE INTERSECTION OF THE SOUTHBOUND LANES OF WESTHEIMER LAKES NORTH DRIVE AND FARM TO MARKET 1093 ROAD, TRAVEL SOUTHWEST ON FARM TO MARKET 1093 ROAD APPROXIMATELY 1090 FEET, THEN TRAVEL 295 FEET NORTH TO THE SOUTH RIGHT-OF-WAY LINE OF PARK ROW, TO A BOX CUT ON THE BACK OF A CURB JUST NORTH OF THE TACO BELL, ELEVATION - 131.46.

TBM 4: BEING A BOX CUT ON THE BACK OF A CURB LOCATED FROM THE INTERSECTION OF THE SOUTHBOUND LANES OF WESTHEIMER LAKES NORTH DRIVE AND FARM TO MARKET 1093 ROAD, TRAVEL SOUTHWEST ON FARM TO MARKET 1093 ROAD APPROXIMATELY 930 FEET TO A PRIVATE DRIVEWAY, THEN TRAVEL 970 FEET NORTH TO THE BACK OF A CURB OF A CONCRETE MEDIAN, NORTHWEST OF THE XSCAPE MOVIE THEATER, ELEVATION - 132.33.

TBM "AAA": BEING A BOX CUT ON SET ON TOP OF A CONCRETE INLET LOCATED APPROXIMATELY 340 FEET NORTH FROM THE NORTH R.O.W. LINE OF FARM TO MARKET 1093 ROAD, AND 340 FEET EAST FROM THE EAST R.O.W. LINE OF RING ROAD. (SHOWN HEREON), ELEVATION - 132.34.

ISSUE FOR BID 04/07/2026



Shell Federal Credit Union  
 Katy Fulshear  
 26620 FM 1093  
 Katy, Texas 77494

**DRAINAGE AREA MAP AND CALCULATIONS**

C1.03

SLI143 - SHELL FCU		Atlas 14		3 yr	100 yr																				
		b = 48.73	b = 42.99																						
		d = 8.37	d = 1.08																						
		e = 0.7063	e = 0.5274																						
		i = b/(d+TC) <sup>2</sup>	i = b/(d+TC) <sup>2</sup>																						
Underlined Number Indicates a Combined Drainage Area																									
Area No	Area A (acres)	Total Area Area (acres)	Runoff Coefficient C	Sum of C'A	Time of Conc Tc (min)	Intensity i (in/hr)	Sum of Q (cfs)	Reach Length L (ft)	Diameter of Rise D (in)	Slope m (%)	Manning's n	Fall (ft)	MH Drop (ft)	Flowline Elevation Up (ft)	Flowline Elevation Down (ft)	Actual Velocity V (ft/s)	Hydraulic Gradient HGL (%)	Culvert Area (ft <sup>2</sup> )	Hydraulic Radius Calc Rm <sup>2/3</sup>	Design Capacity Qdesign (cfs)	Design Velocity Vdesign (fps)	HGL Elevation Up (ft)	HGL Elevation Down (ft)	Gutter Elevation (ft)	
3 Year	A1	0.27	0.27	0.80	0.22	10.00	6.24	1.35	151	12	0.441	0.013	0.67	-	126.78	126.11	1.72	0.14	0.79	0.40	2.36	3.00	128.01	127.80	131.00
	A2	0.30	0.57	0.80	0.46	10.00	6.24	2.84	146	18	0.256	0.013	0.37	-	126.11	125.74	3.05	0.07	1.77	5.30	3.00	127.80	127.69	131.00	
	B1	0.24	0.24	0.80	0.19	10.00	6.24	1.20	135	12	0.441	0.013	0.60	-	126.34	125.74	3.00	0.11	0.79	0.40	2.36	3.00	127.84	127.69	131.00
	B2	0.25	1.06	0.80	0.85	10.00	6.24	5.29	36	24	0.200	0.013	0.07	-	125.74	125.67	3.25	0.05	3.14	0.63	10.09	3.22	127.69	127.67	131.00
100 Year	A1	0.25	0.25	0.80	0.20	10.00	12.09	2.42	151	12	0.441	0.013	0.67	-	126.78	126.11	3.42	0.46	0.79	0.40	2.36	3.00	130.96	130.27	131.00
	A2	0.30	0.55	0.80	0.44	10.00	12.09	5.32	146	18	0.256	0.013	0.37	-	126.11	125.74	3.42	0.26	1.77	0.52	5.30	3.00	130.27	129.89	131.00
	B1	0.24	0.24	0.80	0.19	10.00	12.09	2.32	135	12	0.441	0.013	0.60	-	126.34	125.74	3.42	0.42	0.79	0.40	2.36	3.00	130.46	129.89	131.00
	B2	0.25	1.04	0.80	0.83	10.00	12.09	10.06	36	24	0.200	0.013	0.07	-	125.74	125.67	3.67	0.20	3.14	0.63	10.09	3.22	129.89	129.82	131.00
Total Area		1.06																							

FBC Engineering Approval