

5.2 FM 270 BRIDGE

FNI evaluated adding a second opening to FM 270, as shown in **Figure 32**. This scenario was analyzed by adding a 300-foot opening in the roadway embankment south of the main channel crossing, and grading an associated bypass channel. This auxiliary opening and bypass channel would be designed to only convey flow during a storm event, and would therefore not impact the ordinary flow of Clear Creek. The project’s fact sheet is included as **Table 23** below.

Figure 32: FM 270 Auxiliary Opening Location Map



Table 23: FM 270 Auxiliary Opening Fact Sheet

Property Owner	TxDOT
Length	300 feet
Estimated ROM Capital Cost	\$5M
Flood Instances Reduced (100-yr)	86
Flood Damages Reduced (100-yr)	\$8M
Flood Instances Increased (100-yr)	11
Flood Damages Increased (100-yr)	\$1.5M

The 100-year Inundation Depth Changes Map is shown in **Figure 33** provided on the next page. This alternative reduces water surface elevations by up to 0.5 feet upstream of the crossing. This alternative cannot be constructed as a stand-alone project and must be constructed jointly with other projects (such as the Clear Lake outlet expansion) to mitigate adverse downstream impacts. The non-cost factors associated with this project are presented in **Table 24** below.

Table 24: FM 270 Auxiliary Opening Non-Cost Factors

Factor	Score
Land Acquisition	5
Community Impact/Aesthetics	3
O&M/Resiliency	5
Other Agency Coordination	3
Speed of Implementation	5
Non-Cost Factor Weighted Score	4.1

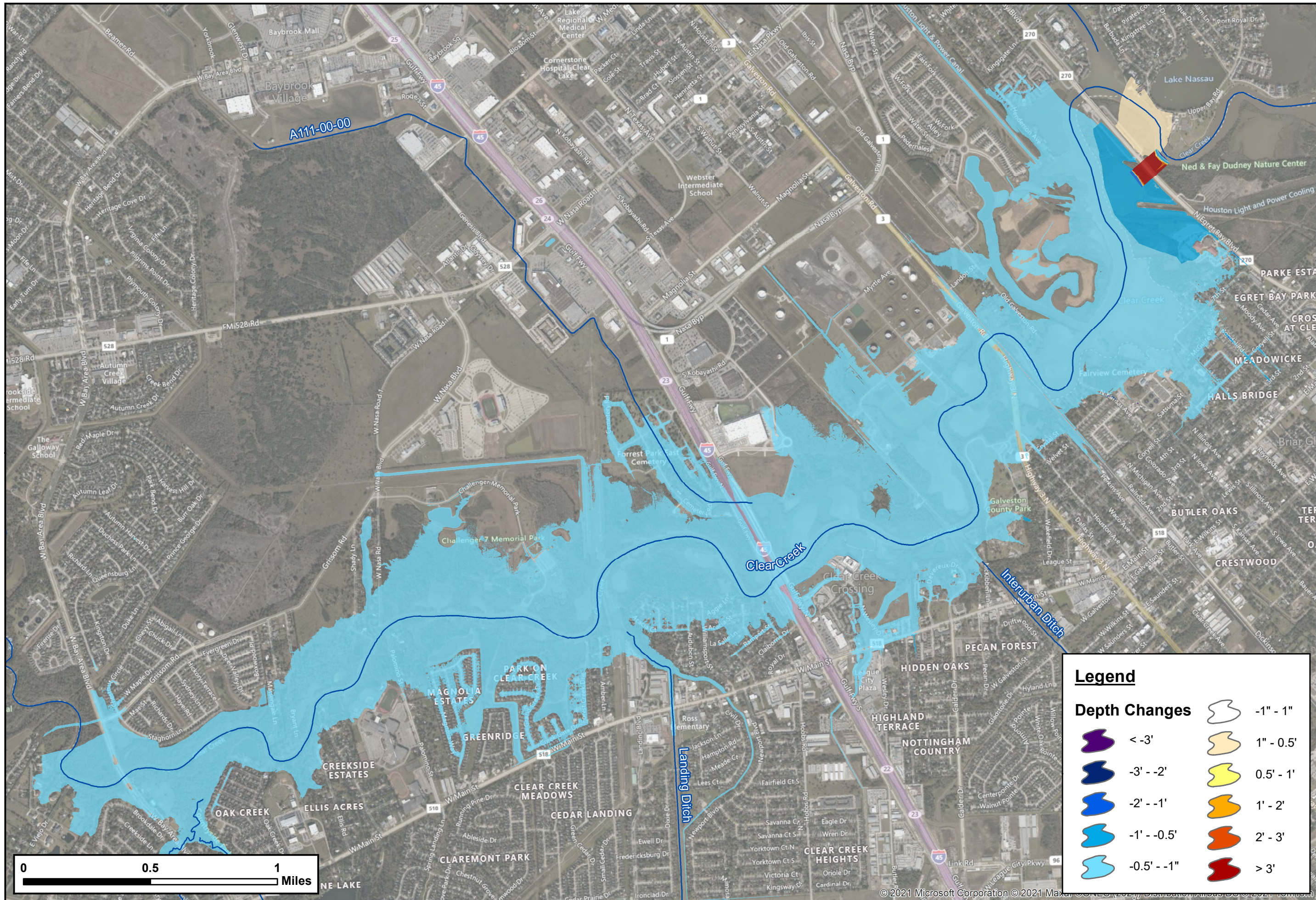


FIGURE 33











FN JOB NO	LEA19688
FILE	Fig33.FM270_AuxOpening
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SCALE	1:22,000
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FM 270 Auxiliary Opening
100-yr Inundation Depth Changes Map



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Legend

Depth Changes		-1" - 1"
	< -3'	 1" - 0.5'
	-3' - -2'	 0.5' - 1'
	-2' - -1'	 1' - 2'
	-1' - -0.5'	 2' - 3'
	-0.5' - -1"	 > 3'