

Projection of Cost to Digitize Land Records across the State

Back to 1980

This assessment is based on the responses to a survey conducted by the Secretary of State's office during the pandemic. Some information was available from the Report filed by the VMCTA pursuant to the fee statute. The page counts and costs were derived from information obtained in 2020. The information derived from the survey responses pre-dates the 2020 grant program. Some towns implemented digitization projects using the grant money, though most projects involved beginning a digitization program and running forward. The grants were not large enough to allow for scanning historical documents.

Summary of Clerk Responses to Survey on Digitization and Responses taken from Clerk's Report to the Legislature for the years 2019-2021			
	2020 Survey	Clerk's Report	
Raw Count – Total Responses	167		
Images Online	33		
Index Online	44		
Index Computerized	128		
Index Not Computerized	44		
Software in Use			
COTTS	20	49	
AVENU	15	18	
KOFILE	8	11	
NEMRC	57	24	No clear explanation for the variance between the responses from 2020 and the Clerk's report. Perhaps different towns responded to each, or towns changed servicers.
			Appears to be primarily for Indexing – unclear if NEMRC includes image scanning
			Several clerks report various other responses (I scan them to PDF's etc.)
Cost Per Page			Responses are unreliable or empty but range from \$0.05 per page to \$2.95 per page.
Pages to Scan to 1980			

Responses with no usable answer	45	Ranges from blanks, to “I don’t know” “a Lot”
Total estimate of pages to scan	4,997,522	
Average based on all responses, including blanks	40,630 pages	The average is based on all the reporting towns, including those that did not provide estimates and possibly some that have already scanned their records but reported in the survey in such a way I can’t tell.
Projection to 246 towns, based on the average pages for the sample size – Pages required to be scanned / converted	9,994,980	This may not be the most useful number, but it does suggest the magnitude of the issue.
		Additional Notes:
		1. Many of the reports from the towns show significant counts for pages to scan, but also show that the town is already using one of the vendors like COTTS or Avenu. That raises the question, are the clerks “double counting” specifically, are the clerks indicating that records that already exist in a digital form need to be “scanned” which is incorrect.
		2. VSARA reports that they have microfilm records for many towns. At least based on my assumption for what they reported. If that is the case, then any records existing in microfilm need not be scanned, because the technology exists to convert microfilm images to digital images.
		3. For those towns that already have a digitized index, it may be possible to convert / import the digital index into another system. In particular, those towns using the NEMRC system may be able to convert to a COTTS or AVENU system without re-indexing all the digital documents.

Option 1 – Using Microfilm Images		Option 2 – Using Microfilm Images Imported Index	
Avenu			
Cost to Convert Microfilm to Digital	\$0.15 Mid-way between	Cost to Convert Microfilm to Digital Images (10,558 reels @ \$40 per reel) ¹	\$423,520
Cost to Enhance converted image	None Indicated	Cost of Image correction / enhancement – Estimate – 50% of images(?) @ \$.60 per page	\$2,700,000

¹ This number assumes that VSARA has 100% of all towns records in microfilm that can be converted to digital images and loaded into a vendor system. AT BEST THIS IS A MIDDLE OF THE PACK ESTIMATE.

Cost to Index Image per document See Footnote 2 for estimate of images to be indexed.	\$2.25		Indexing costs – Assumes some consulting costs to move existing digital indexes to platform ² 1847000 at \$2.25 each	\$4,155,750
Pages to Convert and Index – based on projected pages using average pages computed above ³	9,994,980		Cost to load images to platform @\$0.04 per image (page) 9,000,000 images (guesstimate on existing Avenu images at about 1,000,000 images	\$360,000
Total Cost – of Conversion / digitization – See Footnote 2	Low: 4,155,750 High 8,311,500		Total Cost of Conversion, Option 2	\$,7,639,270.00
Startup Expense for Owned Equipment – for 213 Towns	\$1,160,850		Startup Expense for Owned Equipment – for 213 Towns	\$1,160,850
Startup Expense for Leased Equipment for 213 Towns	\$1,288,650		Startup Expense for Leased Equipment for 213 Towns	\$1,288,650
Estimated Budget High Low	 9,599,500 \$5,444,400		Estimated Budget	\$8,927,920
High Budget with 20% contingency	\$11,519,400		High Budget with 20% contingency	\$10,713,504

To get to 1960 with the digitization of records, add 25% to the estimated budgets.

² The question about how many instruments have been indexed, and how many remain to be indexed cannot reliably be determined from the data. So, the estimate used is as follows. Sixty percent of the pages to be indexed is 5,400,000 pages. Mortgages (10-18 pages) for 50% of the pages (245,454 instruments). Deeds (2-3 pages) for 25% of the pages (122,727 instruments). Discharges (1 Page) 10% of the pages (540,000 instruments) and Misc instruments remainder (162,000).

³ This number is likely high. This number excludes 10 of the 33 towns that have some or all of their records online. It includes 23 towns that identify as having some records online on the assumption that the town does not have records back to 1980 online. The total number of pages for towns already online with some records is 764,024.

Option 3 – Using Microfilm Images			
Cost to Convert Microfilm to Digital	\$0.16 Midway between \$0.14 to		
Cost to Enhance converted image	None Specified		
Cost to Index Image per document See Footnote 2 for estimate of images to be indexed.	\$2.25 \$1.25 to \$2.50 range.		
Pages to Convert and Index – based on projected pages using average pages computed above ⁴	9,994,980		
Total Cost – of Conversion / digitization – See Footnote 2	Low: 4,155,750 High 8,311,500		
Startup Expense for 213 Towns \$15,900 to \$17,150	\$3,519,825		
Estimated Budget			
High	\$11,831,325		
Low	\$8,311,500		

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