

MINNESOTA ELECTRONIC REAL ESTATE RECORDING

Phase 1 Pilot Test Findings

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Best Practices

The following are the best practices reported by pilot counties as a result of their testing.

- Virus scanning software needs to be loaded on the e-recording server that will reside in the county to protect the integrity of the system.
- In manual, paper processes, larger counties may have an “assembly line” model for recording documents. When moving to electronic recording, staff needs to understand the entire recording process. This is because staff will move from recording paper documents to handling exceptions. For example, electronically filed documents with errors will move to an “exception queue” for attention from individuals. These documents may be rejected in any stage of the recording process. Recording staff needs to be able to identify and deal with document errors no matter where they appear within the document.
- For better data integrity, cross references between electronically recorded documents and indexing systems should be made whenever possible. For example, recording systems should match reference numbers on Satisfactions to mortgage numbers in the indexing system.
- Prior to beginning electronic recording, the county must determine how to integrate electronic document numbers with paper document numbers.
- When beginning to record electronically with any new trusted submitter, start by recording only a few documents at a time. This allows the recording staff to individually review electronic documents and identify any problems immediately.
- Work with trusted submitters to identify the style sheet that will be used for each electronically recorded document. Agree to use the agreed upon style sheets for all recordings. This ensures that electronic documents are viewable by all parties in an appropriate format.
- A clear testing plan needs to be delineated with all of the stakeholders to insure that all are comfortable before testing begins. This would include the vendor staff, county staff and trusted submitter staff.

Baseline Measurements

The following baseline measurements were collected from Pilot Counties. Renville and Roseau counties were unable to complete their measurements because they did not record documents electronically prior to the end of the pilot.

Dakota County

Phase 1 – Satisfaction	Pre-Pilot Measurement	Measures for an Electronic Filing Only
Number of Satisfaction Documents Processed (1 year)	Abstract – 39,360 Torrens – 8,203	05/27/03 thru 05/11/04 (Abstract Only) TOTAL – 2,961
Number of Steps Involved in Processing Satisfaction Document (From receipt of Satisfaction until it is returned to submitter) (Provide narrative explaining this process and what is the flow of this process in your department) (ASSUMPTION: This is the process associated with a recordable satisfaction)	Narrative will follow	See narrative below.
Staff Hours Spend Processing Satisfaction – Per Document (This is following a single document through the steps outlined in the previous measurement. Estimate minutes or fractions of an hour based on recordable satisfaction)	.14 hours	.008 hours
Number of Satisfaction Documents Rejected (in 30 consecutive calendar days)	Abstract – 253 Torrens - 453	Abstract Only - 28
Average Number of Days From Date of Receipt to Date Indexed for Satisfaction	Abstract – 43 Torrens – 57	1

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Average for a year		
% of recorded satisfaction documents mailed back to submitter Estimate for one year	25%	0%
% of All Satisfactions Filed Electronically	0%	2%
Phase 1 – Certificate of Release	Pre-Pilot Measurement	Measures for Electronic Filings Only
Number of Certificate of Release Documents (COR) Processed (1 year)	Abstract – 8,199 Torrens – 1,880	05/27/03 thru 05/11/04 (Abstract Only) Total C.O.R's.- 49
Number of Steps Involved in Processing COR Document (From receipt of COR until it is returned to submitter) (Provide narrative explaining this process and what is the flow of this process in your department) (ASSUMPTION: This is the process associated with a recordable COR)	See Narrative Below	See Narrative Below
Staff Hours Spend Processing COR – Per Document (This is following a single document through the steps outlined in the previous measurement. Estimate minutes or fractions of an hour based on recordable COR)	.15 hours	.008 hours
Number of COR Documents Rejected (in 30 consecutive calendar days)	Abstract – 14 Torrens – 66	None as of this date
Average Number of Days From Date of Receipt to Date Indexed for Certificate of Release Average for a year	Abstract – 43 days Torrens – 57 days	1 Day
% of recorded COR documents mailed back to submitter Estimate for one year	25%	N/A
% of all COR documents filed electronically	0%	.1%

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Hennepin County

Phase 1 – Satisfaction	Pre-Pilot Measurement	Measures for an Electronic Filing Only
Number of Satisfaction Documents Processed (1 year)	Abstract – 79,132 Torrens – 45,244	
Number of Steps Involved in Processing Satisfaction Document (From receipt of Satisfaction until it is returned to submitter) (Provide narrative explaining this process and what is the flow of this process in your department) (ASSUMPTION: This is the process associated with a recordable satisfaction)	<ol style="list-style-type: none"> 1. Documents are received in the office. Mail is sorted as Abstract or Torrens. 2. Documents are reviewed by the Counter Deputies. 3. Payments are receipted or customer accounts are credited. 4. Documents are numbered and endorsed with County Recorder or Registrar of Title information. 5. Data is entered into the Document Recording System (Abstract) or Automated Torrens System (Torrens). 6. Documents are imaged. 7. Tract Index is verified (Abstract). 8. Documents are returned to submitter. 	
Staff Hours Spend Processing Satisfaction – Per Document (This is following a single document through the steps outlined in the previous measurement. Estimate minutes or fractions of an hour based on	Abstract – 9.2 minutes or 0.15 hours. Torrens – 26.6 minutes or 0.44 hours.	

recordable satisfaction)		
Number of Satisfaction Documents Rejected (in 30 consecutive calendar days)	Abstract – 361 Torrens – 565	
Average Number of Days From Date of Receipt to Date Indexed for Satisfaction Average for a year	Abstract – 7 calendar days Torrens – 16 calendar days	
% of recorded satisfaction documents mailed back to submitter Estimate for one year	35%	
% of All Satisfaction Filed Electronically	0%	
Phase 1 – Certificate of Release	Pre-Pilot Measurement	Measures for Electronic Filings Only
Number of Certificate of Release Documents (COR) Processed (1 year)	Abstract – 19,616 Torrens – 10,766	
Number of Steps Involved in Processing COR Document (From receipt of COR until it is returned to submitter) (Provide narrative explaining this process and what is the flow of this process in your department) (ASSUMPTION: This is the process associated with a recordable COR)	<ol style="list-style-type: none"> 1. Documents are received in the office. Mail is sorted as Abstract or Torrens. 2. Documents are reviewed by the Counter Deputies. 3. Payments are receipted or customer accounts are credited. 4. Documents are numbered and endorsed with County Recorder or Registrar of Title information. 5. Data is entered into the Document Recording 	

	<p>System (Abstract) or Automated Torrens System (Torrens).</p> <p>6. Documents are imaged.</p> <p>7. Tract Index is verified (Abstract).</p> <p>8. Documents are returned to submitter.</p>	
<p>Staff Hours Spend Processing COR – Per Document</p> <p>(This is following a single document through the steps outlined in the previous measurement. Estimate minutes or fractions of an hour based on recordable COR)</p>	<p>Abstract – 9.2 minutes or 0.15 hours.</p> <p>Torrens – 26.6 minutes or 0.44 hours.</p>	
<p>Number of COR Documents Rejected (in 30 consecutive calendar days)</p>	<p>Abstract – 101</p> <p>Torrens – 179</p>	
<p>Average Number of Days From Date of Receipt to Date Indexed for Certificate of Release</p> <p>Average for a year</p>	<p>Abstract – 7 calendar days</p> <p>Torrens – 16 calendar days</p>	
<p>% of recorded COR documents mailed back to submitter</p> <p>Estimate for one year</p>	<p>35%</p>	
<p>% of all COR documents filed electronically</p>	<p>0%</p>	

Lyon County

Phase 1 – Satisfaction	Pre-Pilot Cost/Measurement	Phase 1 Cost/Measurement
Number of Satisfaction Documents Processed (1 year)	1772 doc in the year 2002	
Number of Staff Involved in Processing Satisfaction Document (From receipt of Satisfaction until it is returned to submitter)	4 staff members involved	
Staff Hours Spend Processing – Average Cost Per Hour -> Total Internal Cost Example: employee A earns \$20/hr and (on average) spends 2 hours a day on Satisfaction. Employee B earns \$10/hr and spends 1.5 hours a day on Satisfaction. The calculation is as follows: $(\$20 \times 2) + (\$10 \times 1.5) = \$55$ **When calculating hourly pay rates for employees, include benefits as compensation in the hourly rate.**	We spend 2 hrs a day on processing satisfactions. Cost per day of working on satisfaction \$31.90	
Average Staff Processing Cost Per Document (Total Internal Costs/ Number of Documents Processed) Cost from above answer/ Number of Satisfaction Processed (on average) for one day	\$4.50	
Number of Satisfaction Documents Rejected (in 30 consecutive days)	20	
Average Number of Days From Date of Receipt to Date Indexed for Satisfaction Average for a year	3	
Delivery Cost Per Document Average cost per document. Example: $(\$0.37 + \text{cost of envelope})$	\$0.42	
Total Delivery Costs for Satisfaction Document (mail, FedX, currier, etc.)	\$744.24	

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(Delivery cost per document x # of documents processed in 1 year)		
System Maintenance (cost of maintaining system, IT costs, etc.) 1 year Estimate the % of total documents Satisfactions account for (e.g. 15%). Multiply this times the total cost of maintaining current recording systems.	IT- not tractable equipment replacement costs \$10,000 software-\$3250	
Other Expenditures for Satisfaction (description and amount) (e.g. banking costs, customer service, etc.)		
Other Savings for Satisfaction (description and amount)		
Phase 1 – Certificate of Release	Pre-Pilot Cost/Measurement	Phase 1 Cost/Measurement
Number of Certificate of Release Documents Processed (1 year)	6	
Number of Staff Involved in Processing Certificate of Release Document (From receipt of COR until it is returned to submitter)	4	
Staff Hours Spend Processing – Average Cost Per Hour -> Total Internal Cost Example: employee A earns \$20/hr and (on average) spends 2 hours a day on COR's. Employee B earns \$10/hr and spends 1.5 hours a day on COR's. The calculation is as follows: $(\$20 \times 2) + (\$10 \times 1.5) = \$55$ **When calculating hourly pay rates for employees, include benefits as compensation in the hourly rate.**	staff hours per day – to minimal to measure	
Average Staff Processing Cost Per Document (Total Internal Costs/ Number of Documents Processed)	\$4.50	

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Cost from above / Number of COR's Processed (on average) for one day		
Number of Certificate of Release Documents Rejected (in 30 consecutive days)	1	
Average Number of Days From Date of Receipt to Date Indexed for Certificate of Release Average for a year	3	
Delivery Cost Per COR Document Average cost per document. Example: (\$.37 + cost of envelope)	\$0.42	
Total Delivery Costs for the Certificate of Release Document (mail, FedEx, courier, etc.) (Delivery cost per document x # of documents processed in 1 year)	\$2.52	
System Maintenance (cost of maintaining system, IT costs, etc.) 1 year Estimate the % of total documents COR's account for (e.g. 15%). Multiply this times the total cost of maintaining current recording systems.	To few to calculate	
Other Expenditures for Certificate of Release (description and amount) (e.g. banking costs, customer service, etc.)		
Other Savings for Certificate of Release (description and amount)		

Renville County

Phase 1 – Satisfaction	Pre-Pilot Measurement	Measures for an Electronic Filing Only
Number of Satisfaction Documents Processed (1 year)	1219	
Number of Steps Involved in Processing Satisfaction Document (From receipt of Satisfaction until it is returned to submitter) (Provide narrative explaining this process and what is the flow of this process in your department) (ASSUMPTION: This is the process associated with a recordable satisfaction)	See attachment	
Staff Hours Spend Processing Satisfaction – Per Document (This is following a single document through the steps outlined in the previous measurement. Estimate minutes or fractions of an hour based on recordable satisfaction)	5 minutes per Satisfaction	
Number of Satisfaction Documents Rejected (in 30 consecutive calendar days)	1	
Average Number of Days From Date of Receipt to Date Indexed for Satisfaction Average for a year	2 Days	
% of recorded satisfaction documents mailed back to submitter Estimate for one year	100	

% of All Satisfactions Filed Electronically	0	
Phase 1 – Certificate of Release	Pre-Pilot Measurement	Measures for Electronic Filings Only
Number of Certificate of Release Documents (COR) Processed (1 year)	2	
Number of Steps Involved in Processing COR Document (From receipt of COR until it is returned to submitter) (Provide narrative explaining this process and what is the flow of this process in your department) (ASSUMPTION: This is the process associated with a recordable COR)	Same as Satisfactions	
Staff Hours Spend Processing COR – Per Document (This is following a single document through the steps outlined in the previous measurement. Estimate minutes or fractions of an hour based on recordable COR)	5 Minutes	
Number of COR Documents Rejected (in 30 consecutive calendar days)	1 if that many	
Average Number of Days From Date of Receipt to Date Indexed for Certificate of Release Average for a year	2	
% of recorded COR documents mailed back to submitter Estimate for one year	100	
% of all COR documents filed electronically	0	

Roseau County

Roseau County does not record Certificates of Release.

Phase 1 – Satisfaction	Pre-Pilot Measurement	Measures for an Electronic Filing Only
Number of Satisfaction Documents Processed (1 year)	750	
Number of Steps Involved in Processing Satisfaction Document (From receipt of Satisfaction until it is returned to submitter) (Provide narrative explaining this process and what is the flow of this process in your department) (ASSUMPTION: This is the process associated with a recordable satisfaction)	Receive Satisfaction. Put recording info on doc.. Enter in Numerical Register. Post on original Mortgage that it is Satisfied. Write Receipt. Image the Document. Make Envelope. Return to Sender.	
Staff Hours Spend Processing Satisfaction – Per Document (This is following a single document through the steps outlined in the previous measurement. Estimate minutes or fractions of an hour based on recordable satisfaction)	15 Minutes	
Number of Satisfaction Documents Rejected (in 30 consecutive calendar days)	10	
Average Number of Days From Date of Receipt to Date Indexed for Satisfaction Average for a year	2	
% of recorded satisfaction documents mailed back to submitter Estimate for one year	75%	
% of All Satisfaction Filed Electronically	0	

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Pilot Test Issues

Skytek Consulting conducted a detailed review of version 3.0 of the Minnesota ERES Standards. Based on this review and feedback from pilot county vendors, we have identified the following:

Schema Issues Identified During Pilot Testing

- Pilot counties encountered the following problems when validating version 3.0 of the schema.
 - Unique Particle Attribution errors: These are errors caused by the naming conventions used in the schema. Skytek's Object Oriented work addresses some of these issues, but not all of them. See Schema Report 3.5.
 - Circular References: The schema contains Circular References which causes errors when trying to validate the schema in a Microsoft environment. These are errors that have to do with embedded file references in the schema.
 - Current Workaround: The vendors and internal IT staffs implementing e-recording have worked with Pam Trombo to work around these issues. Ingeo Systems identified the above problems when trying to implement the schema in Microsoft and Java environments. Ingeo has been referred to Pam Trombo to work through these issues, similar to the way they were handled at other pilot county implementations.
 - Schema Validation Issues: The ERES schema version 3.0 validates in XML Spy. County vendors reported difficulty working with the schema using applications other than XML Spy. Examples of systems which experienced problems are: UNIX, .NET and Linux.
 - Schema Naming Issues: Version 3.0 of the Standard XML Schema contains multiple instances of Elements that mean different things in different places. See Appendix A for detail on schema naming issues.

Change Requests from Pilot Counties

- The following are changes to the schema which have been requested by pilot counties.
 - Date of Birth on CRV: Both John Lally and Nancy Dean of the Department of Revenue felt that the Date of Birth field is not

necessary for the schema and would cause Revenue additional work to secure this information. They ask that this field be removed as they would reject a document containing that information. DOB is a required field on the schema and would affect each and every filing of this document.

- Relationship Status on SAT, COR and Assignment: The enumeration for the marital status element in the schemas for satisfactions, certificates of release and assignments is insufficient because it does not address all documents submitted. Several options for fixing this field have been discussed.
 - The field could become an open text field
 - More values could be added to the enumeration
 - The use of an “other” option could be added to the enumeration along with a text field for the “other value to be entered.
- Required field min length of zero: To ensure that text is present in all required fields, it has been requested that required fields have a minimum text length of zero. Technical implications regarding platform portability have not been explored regarding this issue.

Recommendations

Modify Schema to be Consistent with Object Oriented Approach

- The Object Oriented work addresses some of the issues identified in the 3.0 version of schema. These are issues relating to the unique particle attribution errors. The original documentation developed for this work identifies a number of elements that are named the same throughout all documents, but are actually different objects. See appendix A. This work suggests new, unique names to add clarity and usability for these different objects. However, the focus of this work is not extensive enough to address all issues that result in errors generated by products using the schema.

Standards Architecture for Document Transmission

- Skytek recommends the Task Force further explore creating a standard architecture for document transmission. By adding a standard architecture for document transmission, several benefits exist:
 - Establishing and maintaining trusted submitter/county relationships will be less time consuming and more efficient
 - Better security will exist between the relationships
 - Eliminating a unique interface definition per county
 - Costs for implementation will be decreased
 - Department of Revenue and Department of Health will be better able to manage document transmission from county recorders

Modify Schema for Overall Usability

- In order for the schema to be successfully used by new counties who wish to implement e-recording and by new vendors entering this market space, Skytek recommends that the schema be edited so that it validates in all commonly used environments. Contact with the original schema developer, Pam Trombo, has been the most successful approach used by pilot counties to work with the issues imbedded in the current schema. To stream line and enhance the process for getting up and running with the schema it would be most useful to address schema issues through a

development process that corrects issues and creates a new version of the schema.

- A reference implementation of the schema should be developed and made available to all vendors who wish to implement e-recording in Minnesota. This has been discussed by some vendor groups and could be worked on in the time before work begins again.

Phase II Project Plan Template

The following is a sample project plan for Phase II of the pilot.

COUNTY PHASE II WORK PLAN				
Task/Step	Description	Start Date	End Date	Major Deliverables by Task
Task 1a	Project Initiation	Week 1	Week 4	
1.1	Selection of respective team members for the Project Team			Project Initiation
1.2	Designation of the Project Team leaders			Project Team Roster
1.3	Distribution and review of the proposed project Statement of Work			Detailed Project Statement of Work
1.4	Distribution and review of proposal (i.e., County contracts with Vendors and Task Force)			
1.5	Confirmation of date for kick-off work session			
1.6	Preparation of kick-off work session materials			
1.7	Submission of Request for Data to the County			
1.8	Receipt of information			
1.9	Preparation of on-line Project Management tools			
Task 1b	Kick-off Work Session	Week 2	Week 2	
1.10	Discussion, review, and agreement upon the project's objectives, schedule, team role and responsibilities, specific team assignments			
1.11	Overview and walk through of the County's recording processes for Phase II documents			

1.12	Overview and walk through of the Trusted Submitter's processes for Phase II documents			
1.13	Overview and walk through of Auditor/Treasurer processes for Phase II documents			
Task 1c	Internal Integration Work Session	Week 3	Week 3	
1.14	Technical education of all participants			
1.15	Discussion of indexing			
1.16	Discussion of networking			
1.17	Discussion of Security and access through firewalls			
1.18	Confirmation of system integration points with all parties			
1.19	General design of integration plan			
1.20	Identify development and system testing responsibilities			
1.21	Develop e-recording test lab at both Vendor offices and County			
Task 1d	Integration with County Auditor/Treasurer	Week 4	Week 5	
1.22	Project Review with Auditor and Treasurer offices			
1.23	Review and discussion of Vendors' electronic recording hardware and software specifications / requirements			
1.24	Review and discussion of Auditor/Treasurer hardware and software specifications / requirements			
1.25	Review and discuss integration of Auditor/Treasurer documents and county recorder systems			
1.26	Discussion of format			
1.27	Discussion of timing			
1.28	Discussion of networking			
1.29	Discussion of Security and access through firewalls			

1.30	Confirmation of system integration points with all parties			
1.31	General design of integration plan			
1.32	Identify development and system testing responsibilities			
1.33	Develop e-recording test lab at Recorder, auditor and treasurer offices.			
Task 1e	Wrap-up of Kick-off and Integration Work Sessions	Week 6	Week 6	
1.34	Finalize high level architecture			Completion of Detailed Business Analysis
1.35	Finalize high level security design			Delivery of kick-off session materials
1.36	Security diagram passed to county			Project kick-off and integration work session
1.37	Regular team meetings begin			Revised SOW with deliverables
				Security diagram ready to be signed off
Task 2	Detailed Technical Analysis	Week 7	Week 9	
2.1	Document workflow for each of the documents to be setup as part of this phase of the project			Completion of functional specifications
2.2	Document the detailed business rules for the process			Completion of detailed project timeline
2.3	Document validation rules for the documents before they can be recorded			
2.4	Document designs for integrations with front- and back-end systems, Auditor and Treasurer			
2.5	Document designs approach for the communications with Trusted Submitters			
Task 3	Technical Design Completion and Document Templates	Week 10	Week 14	
3.1	Completion of technical analysis of both integrations and documents to be used as part of this phase of the project			Technical specifications document completed and delivered

3.2	Integration map is finalized and all parties have buy in			Document template(s) & template profile(s) creation completed
3.3	Create profiles of the various document templates that will be used in the project			
3.4	Create validated hard copy document templates			
Task 4	Development and Testing of Coded Business Rules	Week 14	Week 18	
4.1	Review functional requirements to determine acceptance criteria			Delivery of ACH payment system with cashiering/fee accounting system, if applicable
4.2	Code business rule and document flow based on functional and technical specifications			User acceptance test plan delivered
4.3	Code business validation rules based requirements outlined in functional specifications			Completed coding for business rules and XSLT validation
4.4	Complete unit testing on all custom components			
4.5	Validate that all Trusted Submitters participating in the project have ability to process payments related with associated transactions			
4.6	Validate that all Auditors and Treasurers participating in the project have ability to process payments related with associated transactions			
4.7	Collect Baseline Metrics			Baseline Metrics
Task 5	Develop and Test Integration Solutions	Week 19	Week 20	
5.1	Validate that the auditor and treasurer offices participating in the project have the ability to receive and send back electronic data.			
				In-house project testing begins
Task 6	Training and Acceptance Testing	Week 21	Week 22	

				On-site deployment completed
				User Acceptance Testing begins
				Process live documents with county stakeholders
				County training begins
Task 7	Electronic Document Recording	Week 23	Week 40	
7.1	Attachment of appropriate digital signatures and digital notaries			County training completed
7.2	Tracking and management of documents			Project delivered
7.3	Verification of compliance			User Acceptance Test is signed off
7.4	Preparation of management reports			System ready for live recording
7.5	Integration of the recorded data with the County's back-end system			Successful recording of "batch" documents
7.6	Integration of the recorded data with Auditor/Treasurer			
7.7	Validation of the value created by the system for both the Trusted Submitters and the County			
Task 8	Phase II Completion and Report	Week 24	ONGOING	
				Summary report of Phase II completed
TOTAL				

Appendix A – Schema Naming Issues

Assignment	
Current Name (XPath)	Possible New Name(s)
/Document/Execution/County	ExecutionCounty or _County
/Document/Grantor/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Grantee/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Property/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/ReturnToParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/DraftedOrPreparedByParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/BillToParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/SignedByParty/SigningEntityGroup/SigningEntity/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/OriginalMortgagorParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/OriginalMortgageeParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/CountyInformation/RecordingEndorsement/RecordedInformation/County	RecordedCounty
/Document/CountyInformation/Rejection/County	RejectionCounty or _County
/Document/RecordedDocument/MortgageReferenceDocument/RecordedInformation/County	TBD - Needs a little research because the obvious "RecordedCounty" is already used elsewhere

COR	
Current Name (XPath)	Possible New Name(s)
/Document/Execution/County	ExecutionCounty or _County

/Document/Grantor/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Grantee/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Property/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/ReturnToParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/DraftedOrPreparedByParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/BillToParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/SignedByParty/SigningEntityGroup/SigningEntity/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/OriginalMortgageeParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/CountyInformation/RecordingEndorsement/RecordedInformation/County	RecordedCounty
/Document/CountyInformation/Rejection/County	RejectionCounty or _County
/Document/RecordedDocument/MortgageReferenceDocument/RecordedInformation/County	TBD - Needs a little research because the obvious "RecordedCounty" is already used elsewhere
/Document/Parties/AssigneeParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/MortgageServicerParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/RecordedDocument/AppointmentOfAgentReferenceDocument/RecordedInformation/County	TBD - Needs a little research because the obvious "RecordedCounty" is already used elsewhere
/Document/RecordedDocument/AssignmentOfMortgageReferenceDocument/RecordedInformation/County	TBD - Needs a little research because the obvious "RecordedCounty" is already used elsewhere

CRV

Current Name (XPath)	Possible New Name(s)
/Document/Property/Address/County	NA - Belongs to generic/reusable structure

/Document/Parties/SignedByParty/SigningEntityGroup/SigningEntity/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Buyer/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Seller/Correspondence/Address/County	NA - Belongs to generic/reusable structure

Deed

Current Name (XPath)	Possible New Name(s)
/Document/Execution/County	ExecutionCounty or _County
/Document/Grantor/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Grantee/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Property/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/ReturnToParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/DraftedOrPreparedByParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/BillToParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/Parties/SignedByParty/SigningEntityGroup/SigningEntity/Correspondence/Address/County	NA - Belongs to generic/reusable structure
/Document/CountyInformation/RecordingEndorsement/RecordedInformation/County	RecordedCounty
/Document/CountyInformation/Rejection/County	RejectionCounty or _County
/Document/Parties/MailTaxStatementsToParty/Correspondence/Address/County	NA - Belongs to generic/reusable structure