

Planning a customizable mobile
geospatial application to improve the
efficiency of assessment administration.

By Stephen McGrail

PSU World Campus – MGIS

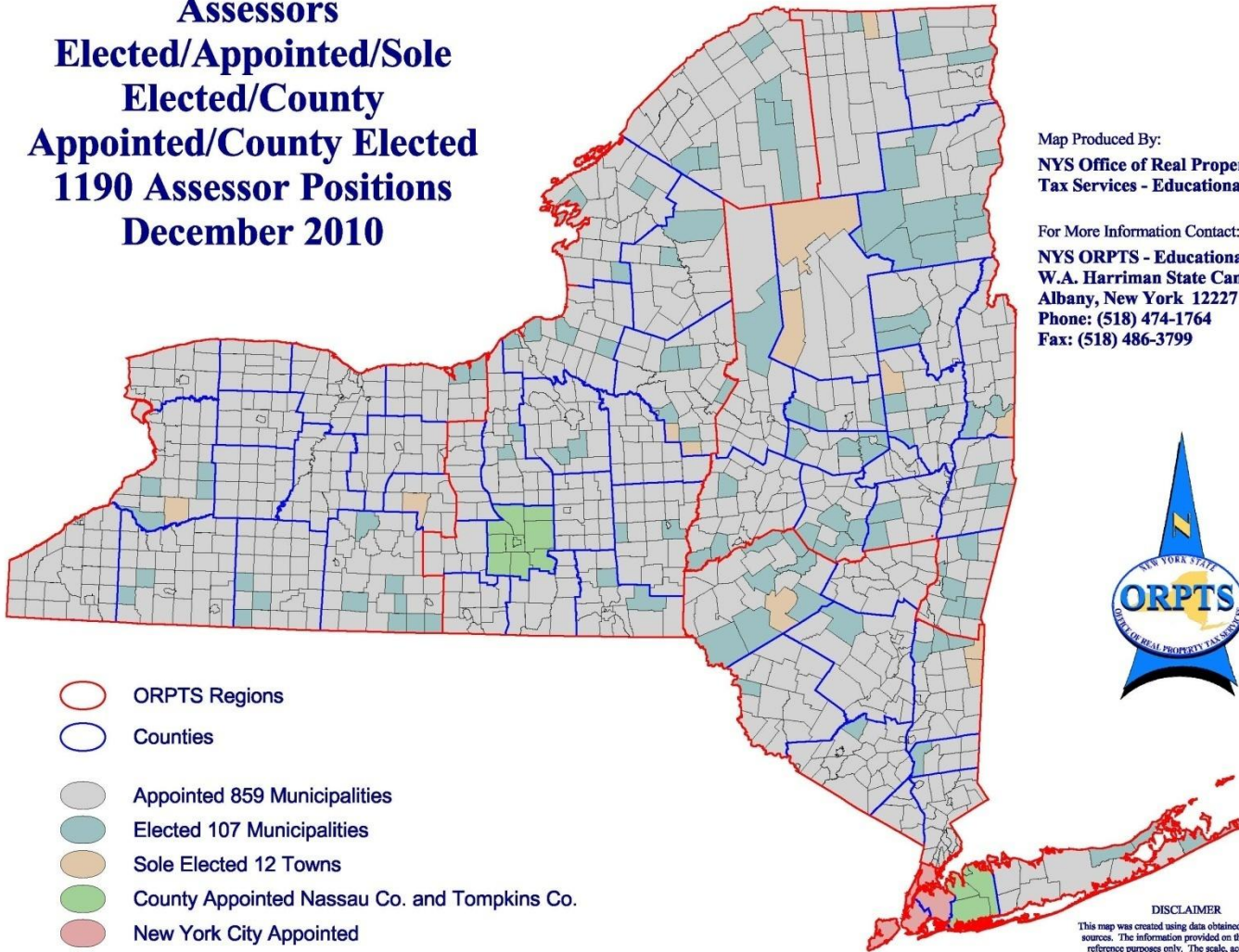
Advised by Dr. Patrick Kennelly

What is a mobile geospatial application?



Real property in New York

Assessors Elected/Appointed/Sole Elected/County Appointed/County Elected 1190 Assessor Positions December 2010



Map Produced By:
NYS Office of Real Property
Tax Services - Educational Services

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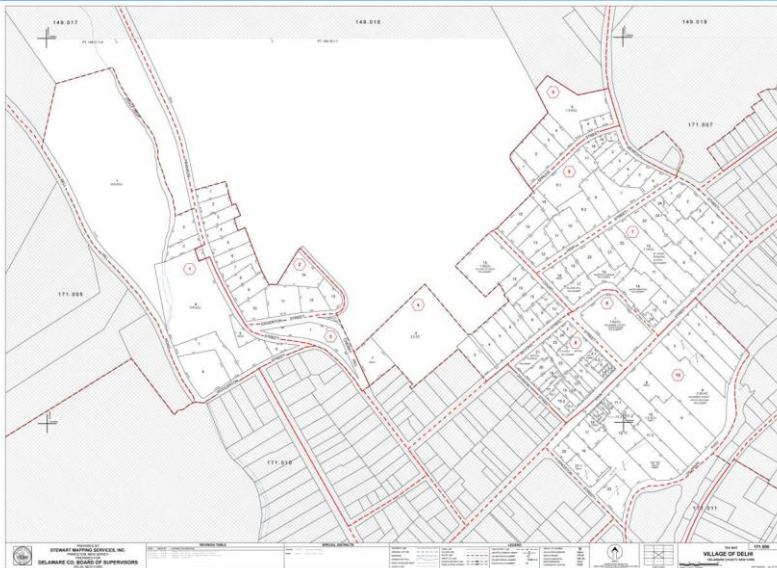
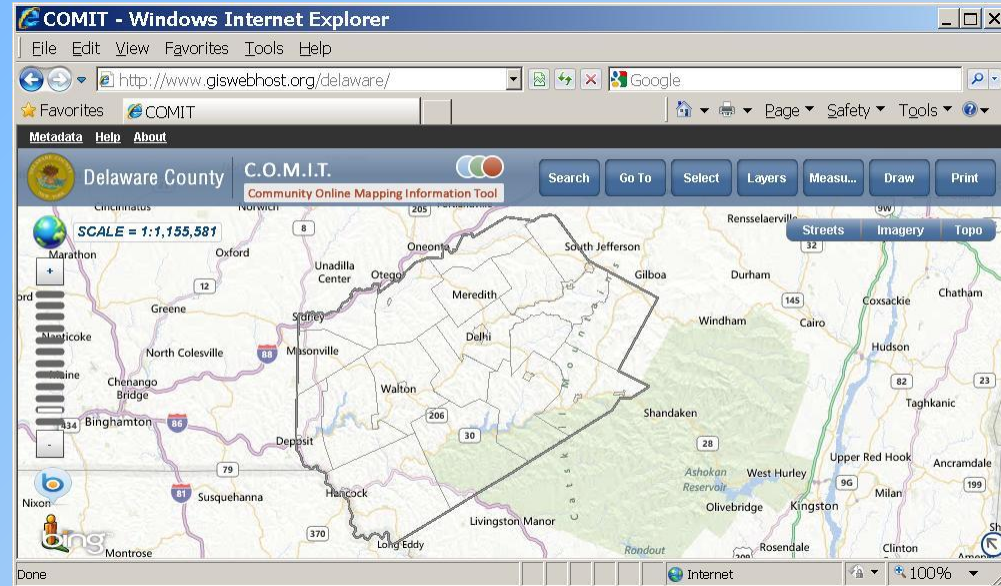


DISCLAIMER

This map was created using data obtained from various sources. The information provided on this map is for reference purposes only. The scale, accuracy, and completeness of the data are not guaranteed.
December 2 2010

County involvement

- Maintain tax maps and parcel shapefiles
- Administer assessment database
- Prepare assessment rolls and tax rolls



RPSv4

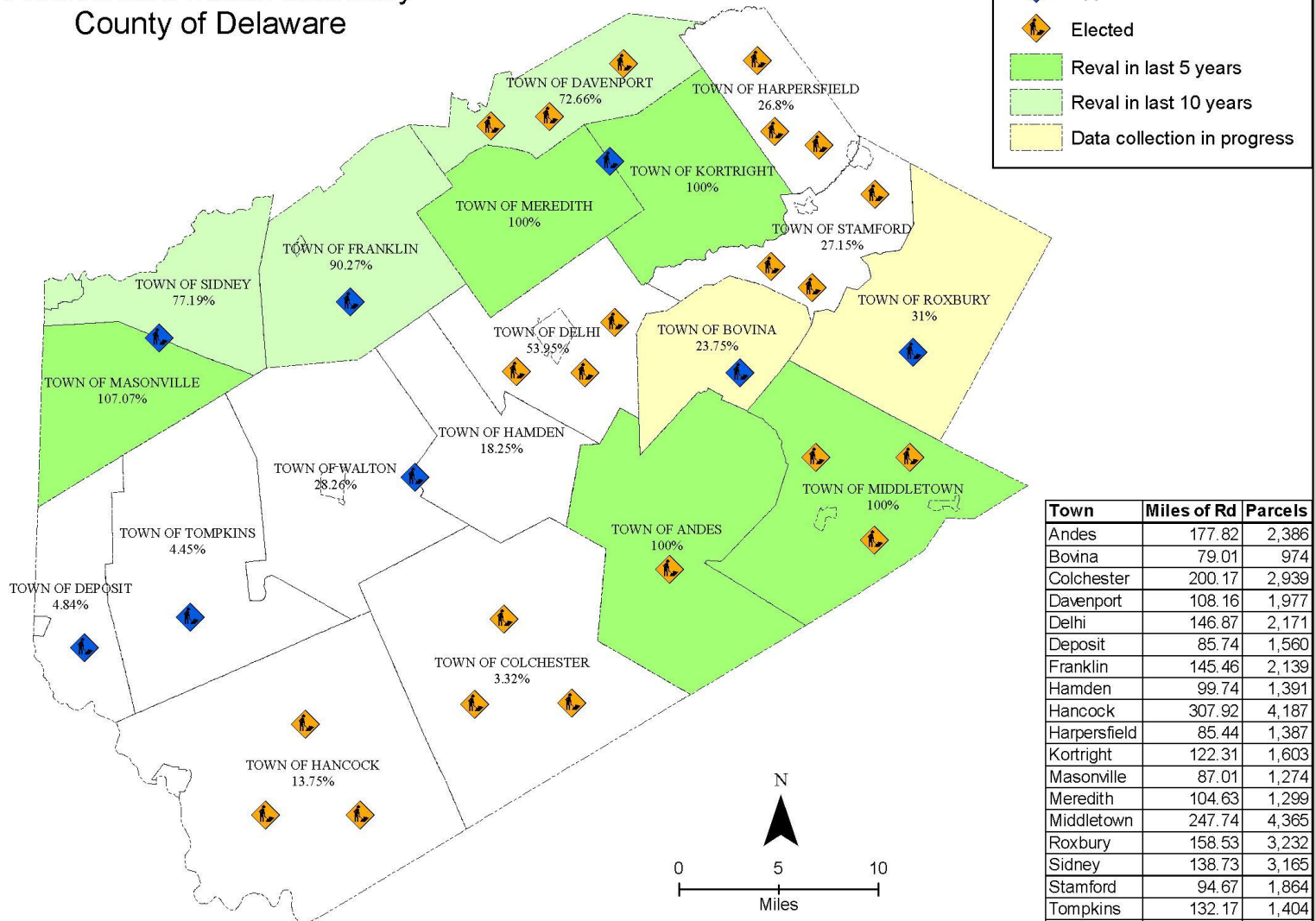
RPS Version 4 - [Snapshot , Group - TaxStaff, Name - stephen.mc...									
File View Toolbar Help									
192.-1-44.2		122889 Delhi		Active		R/S:1	School: Delaware Acad		
Redacted		Roll Year: 2013 Curr Yr		1 Family Res		Land AV: 10,000		Total AV: 84,985	
Land Size: 1.82 acres									
Owner Total: 2				Site Total: 1					
Name: Redacted		Prpcls: 1 Family Res		Nbhd Cd: 0		Sewer: Private		Water: Private	
Addl Addr: Redacted						Utilities: Electric			
Street:									
PO Box:									
City: Delhi, NY		Zip: 13753-							
Taxable Value			Miscellaneous			Land Total: 2			
County: 84,985		Book:		Type: FF:		Depth: Acres: Sqft:			
Muni: 84,985		Page:		Primary 0		0 1.00 0			
School: 84,985		Mortg: 01565935-0001		Residual 0		0 0.82 0			
Schl after Star: 68,795		Bank: 04							
		Acct No: 06201500106							
Sale Total: 0				Building Total: 1					
Book: Page: Sale Date: Sale Price: Owner:				Bldstyle: 01 Ranch		Ext Wall: 03			
				Sfla: 1305		Yr Built: 1996			
				Baths: 1 1/2 Baths: 0		Eff Yrblt: 0			
				Beds: 2		Cond: Normal			
Exemption Total: 1				Improvement Total: 1					
Code		Amount		Term		Dim1		Dim2	
41854 STAR BASIC		16,190		0		0		0	
		Year		Own		SQFT		Yr Built	
				Pct		276.00		2005	
				0					
Special District Total: 1									
Code		Units		Pct		Type		Value /	
FD104 Delhi Joint fd		.00		.00				Move Tax	
								.00	

Double click to open a window

7-11-13 15:23:52

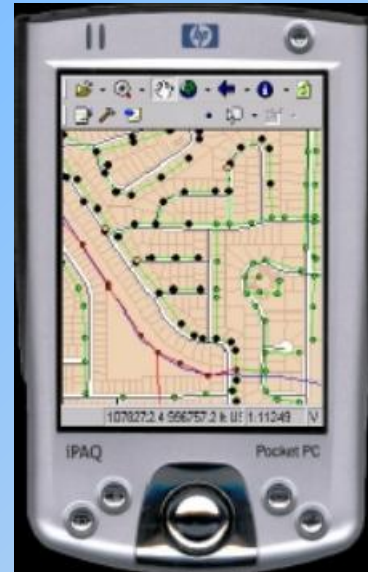
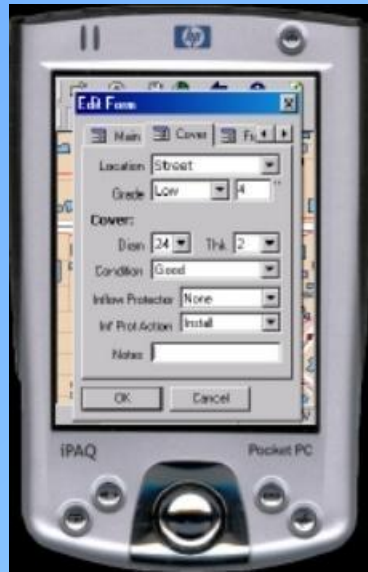
The problem

Assessment Status Summary County of Delaware



Municipality labeled with name and equilization rate.

The problem . . . solved



MAP

Map View 1:00

Menu Zoom

PROPERTY

Parcel 1:00

PARCEL ID: 5/332/141

LCI: R

Building Class: A1 - 1 Family - 2 Sto

Prim. Use Code: A10 - 1, 2, or 3-Fami

Total Buildings: 1

Parcel Status: <undefined>

Street #: 75

Street Name: DRAKE AVENUE

Apartment #:

Parcel | Parcel - contd | Activity

Menu Forms

TASK LIST

Tasks 12:56

BBL	S	Hou...	Addr
5/331/68	P	120	ROYAL OAK
5/331/75	P	138	ROYAL OAK
5/331/128	P	10	BRENTON PL
5/332/170	P	143	DRAKE AVEN
5/346/87	P	186	POTTER AV

143 DRAKE AVENUE

JOB NO.: 500832325
 JOB TYPE: A1
 PERMIT STATUS DATE: 3/28/2007
 JOB EST. COST: \$8,000

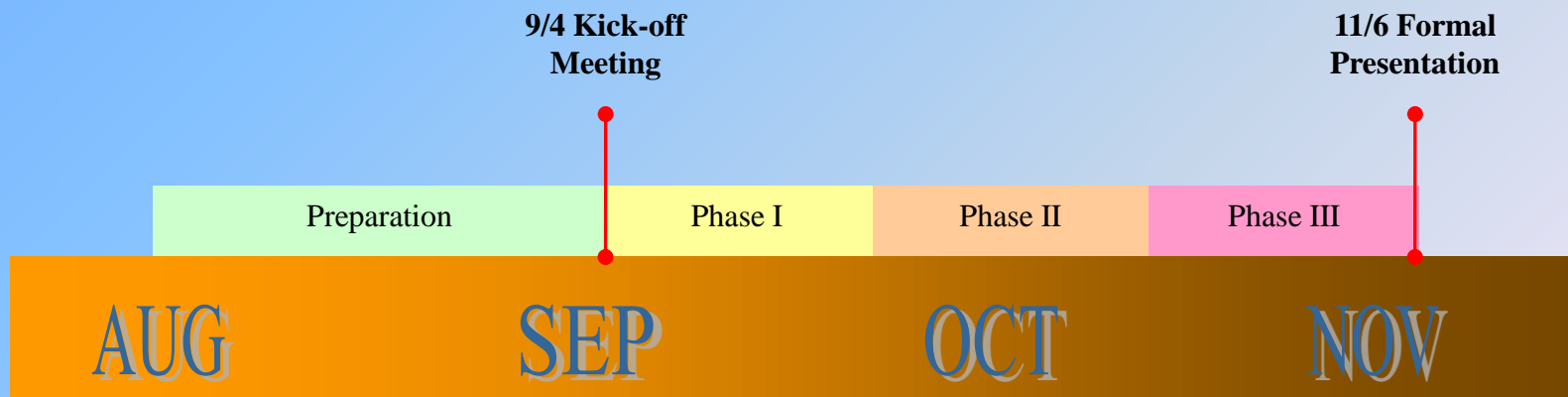
Filter: S1 Status: Pending Update

DOB/BIS Edit Data Map

Done

Planning a custom solution

- Preparation
- Geospatial app needs assessment
- Concept development
- Integration plan

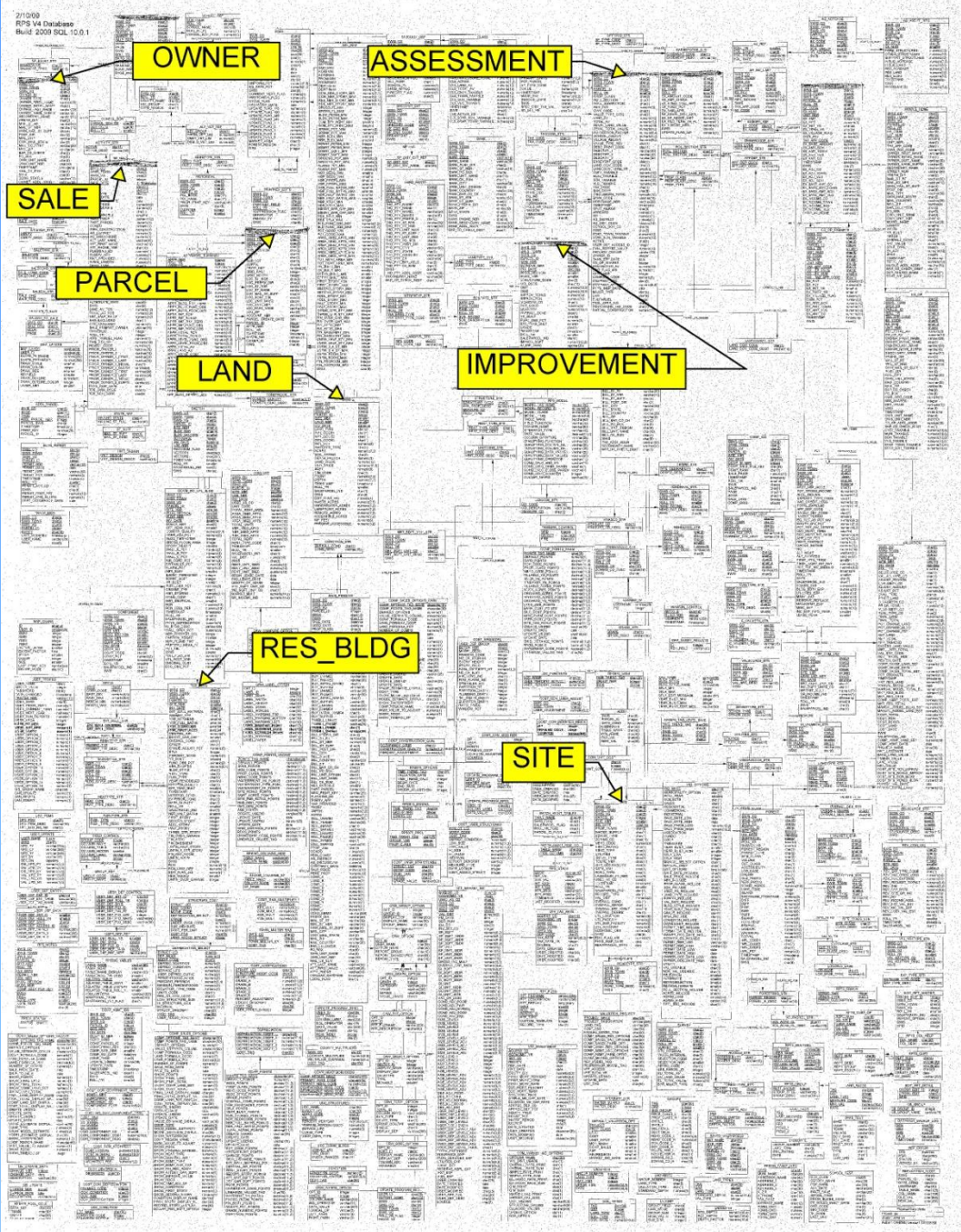


Needs assessment

- Survey questionnaire
- Follow-up interviews
- List available GIS data

Concept development

- List required functionality
- Choose hardware and software
- Spatial database design



Primary keys

- SWIS_CO
- SWIS_TOWN
- SWIS_VG
- PARCEL_ID

Secondary keys

- ROLL_YR
- SITE_NBR
- IMPROVE_NBR

Feature to table key

- PRINT_KEY

Integration plan

- Develop app enhanced workflow
- Prototype e-forms

RP3100 REV. 1/94 NEW YORK STATE OFFICE OF REAL PROPERTY SERVICES RESIDENTIAL FARM AND VACANT LAND PROPERTY RECORD CARD

OWNER		TAX MAP NUMBER		CD		PREP CLASS		HC	
LOCATION NO.		LOCATION		SCHOOL DIST		LOT SIZE		SALE PRICE	
T.V.		SALE DATE		LOT SIZE		SALE PRICE		DATE	
QUALITY CONTROL REVIEWER		DATE		REJECT CODE		ASSISTANCE CODE		DATE	
SIGNATURE									
COLLECTOR		DATE (MM/DD/YY)		TIME		ACTIVITY		ENTRY	
SALES INFORMATION SECTION									
DATE (MM/DD/YY)		SALE PRICE		TYPE		VALID			
LAND BREAKDOWN SECTION									
LAND TYPE		FRONT FEET		DEPTH		ACRES		SQUARE FEET	
LAND CODES									
01 PRIMARY		02 SECONDARY		03 UNDEVELOPED		04 RESIDENTIAL		05 TILTABLE	
SOIL RATINGS									
P POOR		N NORMAL		G GOOD		1 TOPOGRAPHY		2 LOCATION	
WATERFRONT TYPE									
1 POND		2 RIVER		3 LAKE		4 CANAL		5 OCEAN	
								6 BAY	

RESIDENTIAL BUILDING SECTION

BUILDING STYLE		01 RANCH		02 RACHED RANCH		03 SPLIT LEVEL		04 CAPS CODE		05 COLONIAL		06 CONTEMPORARY		07 MANSION		08 OLD STYLE		09 OUTLINE		10 ROW		11 ONE CARIN		12 DUPLEX		13 BUNGALOW		14 OTHER		15 TOWN HOUSE																									
STORY HEIGHT		01 WOOD		02 BRICK		03 ALUMINUM/WOOD		04 COMPOSITION		05 CONCRETE		06 STUCCO		07 STONE		08 STEEL VINYL		09 FIBERGLASS		10 POLURED CONCRETE		11 CONCRETE		12 ABOVE GROUND		13 ATT 1/2 STORY		14 ATT 1/2 STORY		15 ATT 2 STORY		16 DET 1 STORY		17 DET 1/2 STORY		18 DET 2 STORY																			
YEAR BUILT		NUMBER OF KITCHENS		NUMBER OF BATHS		NUMBER OF BEDROOMS		FIREPLACES		HEAT TYPE		FUEL TYPE		CENTRAL AIR		BASEMENT TYPE		BASEMENT GARAGE CAPACITY		CONDITION		GRADE		GRADE ADJUSTMENT		ATTACHED GARAGE CAPACITY		PORCH TYPE		FIRST STORY AREA		SECOND STORY AREA		ADDITIONAL STORY AREA		HALF STORY AREA		THREE QUARTER STORY AREA		FINISHED AREA OVER GARAGE		FINISHED ATTIC AREA		FINISHED BASEMENT AREA		UNFINISHED HALF STORY FLOOR AREA		UNFINISHED THREE QUARTER STORY AREA		UNFINISHED FULL FLOOR AREA		SQUARE FEET OF LIVING AREA		FINISHED RECREATION ROOM AREA	
STRUCTURE CODES		GARAGE		POOLS		BARN		MISCELLANEOUS		CANOPES		SWEEP		MOBILE HOME		POUCH TYPES		IMPROVEMENT CODES		MEASURE CODE		GRADE		CONDITION		ETRIC CODE		MC		DIMENSION 1		DIMENSION 2		QUANTITY		GR		CD		YEAR BUILT															

Anticipated Results

- Town assessors need a geospatial app
- County can take steps to develop the app
- Conceptual design and integration plan are steps towards making it happen

Presentation

- Delaware County Assessor's Association



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