Massachusetts Association
MALSCE
of Land Surveyors & Civil Engineers

2023 MALSCE Convention

Inspiring growth in the profession

Boxboro Regency Hotel & Conference Center

242 Adams Place, Boxborough, MA 01719

Friday and Saturday, March 3 & 4, 2023

7:00 AM - 10:00 PM Friday
7:00 AM - 1:30 PM Saturday

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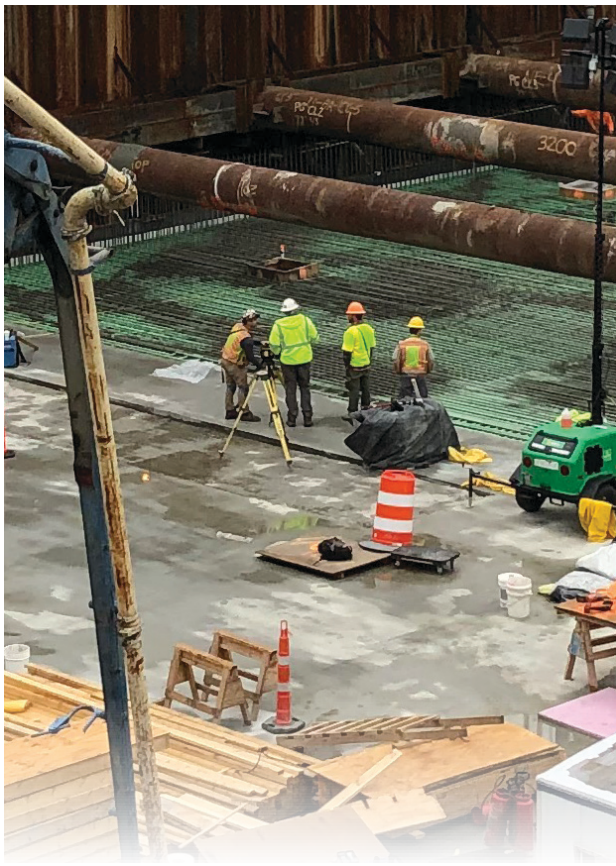

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Letter of Welcome

Inspiring growth in the profession

Welcome to the 2023 MALSCE convention! This year's theme is *Inspiring growth in the profession.* From talking with many of you, we are all having conversations about the difficulties recruiting new surveyors to the profession. We are all facing challenges in finding new blood and training our existing staff. This career presents many challenges from early days in the field to keeping up with technology. I'd like you to think about how best we can educate our junior staff to grow into Professional Land Surveyors.

Please stop by the many vendors that have come out to share the latest and greatest tools and technology with us. You will have the opportunity to meet with many of them for hands on experience with their products. Also, be sure to take advantage of our featured sessions that are intended to provide useful knowledge and practical skills whether you are working as a survey technician, crew chief, or registered Professional Land Surveyor. Lastly, take advantage of this opportunity to reconnect with colleagues and to learn from your peers.

I'd like to thank the members of the Western MA Chapter for supporting the efforts to present this convention and give thanks to Michelle Monette and Rich Keenan for all the work they do to make this possible.

Enjoy the 2023 MALSCE Convention!

Many thanks,

Tim Armstrong
Berkshire Design Group
MALSCE Western Mass Chapter President
MALSCE Convention Planning Committee Co-chair

2023 MALSCE Convention

Schedule of Events

Friday, March 3, 2023

7:00 AM - 4:30 PM
Registration Desk Open
Promenade

7:50 AM - 8:00 AM
Opening Remarks
Tim D. Armstrong, PLS, Berkshire Design Group, Inc., MALSCE Western Massachusetts Chapter President
Colonial Room

8:00 AM - 4:30 PM
Convention Exhibit Open
The Parade Room

8:00 AM - 10:00 AM
Session 1A: Updates on the New Vertical Datum and the Deprecation of U.S. Survey Foot
Daniel J. Martin, Northeast Regional Geodetic Advisor NOAA/NOS/National Geodetic Survey
Colonial Room

8:00 AM - 10:00 AM
Session 1B: Convention Exhibitor Demonstrations
Moderator: Brian E. Koczela, PLS, Owner, BEK Associates
The Parade Room

10:00 AM - 10:30 AM
Break
The Parade Room

10:30 AM - 11:15 AM
Session 2A: Eversource Energy's Right of Ways
Mark T. Olszewski, Supervisor Survey Engineering, Eversource Energy and Peter E. Tuttle, PLS, Survey Coordinator, Eversource Energy
Colonial Room

10:30 AM - 12:00 PM
Session 2B: 5 Leveraging Online Genealogical Records in Surveying Research
A. Richard Vannozzi, MS, PLS, Assistant Professor, Surveying Engineering Technology, University of Maine
Seminar Room

11:15 AM - 11:30 AM
Break (Track A Session Attendees)
The Parade Room

11:30 AM - 12:00 PM
Session 3A: NCEES Update including McKinley Research Project
Paul J. Tyrell, PE, PLS, LEED AP, Associate Vice President, HDR and NCEES Treasurer Chair, Massachusetts Board of Professional Engineers and Land Surveyors, and NCEES Treasurer
Colonial Room

12:00 PM - 1:30 PM
Lunch, MALSCE Annual Meeting and Awards Presentations
Presiding: J. Dan Bremser, PLS, Senior Project Manager, Hancock Associates, 2021-2023MALSCE President
Federal Room

1:30 PM - 2:30 PM
Session 4A: Exploring the Mystery of Nantucket's Meridian Stones
Nikoline Bohr, Treasure Hunter
Colonial Room

1:30 PM - 2:30 PM
Session 3B: 250 CMR Overview
Kenneth Anderson, PLS, Owner, Anderson Surveys, Inc., and Member, Massachusetts Board of Professional Engineers and Land Surveyors
Seminar Room

2:30 PM - 2:45 PM
Break
The Parade Room

2:45 PM – 3:45 PM
Breakout Session: North East Surveying Societies Meeting
Moderator: J. Dan Bremser, PLS, Senior Project Manager, Hancock Associates, 2021-2023 MALSCE President
Director's Room

2:45 PM - 4:15 PM
General Session: Three (not so) New Ways to Find Trouble
Sponsored by Beals and Thomas, Inc. and Feldman Geospatial
Kristopher M. Kline, PLS, GSI, President, 2Point, Inc.
Colonial Room

4:15 PM - 4:30 PM
Break
The Parade Room

4:30 PM - 6:00 PM
General Session: Three (not so) New Ways to Find Trouble (Continued)
Sponsored by Beals and Thomas, Inc. and Feldman Geospatial
Kristopher M. Kline, PLS, GSI, President, 2Point, Inc.
Colonial Room

6:00 PM - 7:00 PM
MALSCE Education Trust Benefit Auction/Reception
Terrace Bar

7:00 PM - 7:30 PM
Break

7:30 PM - 8:30 PM
Dinner
Federal Room

8:30 PM - 9:30 PM
Treasurer Hunting on Nantucket
Nikoline Bohr, Treasure Hunter
Federal Room

Saturday, March 4, 2023

7:00 AM - 2:00 PM
Registration Desk Open
Promenade

7:00 AM - 8:00 AM
MALSCE Board of Directors Breakfast Meeting
Presiding: Kenneth Conte, PLS, Principal, Beals and Thomas, Inc., 2023-2025 MALSCE President
Federal Room

8:00 AM - 10:00 AM
General Session: Three More Ways to Find Trouble: Common Scheme, Part Performance, and Tax Maps
Sponsored by Beals and Thomas, Inc. and Feldman Geospatial
Kristopher M. Kline, PLS, GSI, President, 2Point, Inc.
Colonial Room

8:00 AM - 10:00 AM
Surveyor-in-Training Refresher Course
Clark R. Donkin, PLS, District Survey Supervisor, MassDOT Highway Division
Director's Room

10:00 AM - 10:30 AM
Break
Federal Room

10:30 AM - 12:30 PM
General Session: Three More Ways to Find Trouble (Continued)
Sponsored by Beals and Thomas, Inc. and Feldman Geospatial
Colonial Room

10:30 AM - 12:30 PM
Surveyor-in-Training Refresher Course (Continued)
Director's Room

12:30 PM - 1:30 PM
Lunch
Federal Room

1:30 PM - 3:30 PM
Surveyor-in-Training Refresher Course (Continued)
Director's Room

3:30 PM - 3:45 PM
SIT Refresher Course Attendee Break
Director's Room

3:30 PM - 5:30 PM
Surveyor-in-Training Refresher Course (Continued)
Director's Room

2023 MALSCE Convention

Friday, March 3, 2023

Featured Sessions

7:50 AM – 8:00 AM

Opening Remarks

Tim D. Armstrong, PLS, Berkshire Design Group, MALSCE Western Massachusetts Chapter President and MALSCE Convention Planning Committee Co-chair

Tim leads Berkshire Design Group's survey department with over 20 years of experience. He has been licensed as a professional land surveyor since 2015 and brings a diversity of experience to their team. His experience covers a wide range of survey projects, from small boundary surveys to interstate GPS networks including ALTA/NSPS Land Title Surveys, site development, construction layout, road survey, and interstate energy transmission projects. Tim is also experienced with GIS systems, GPS project integration, and survey data analysis. His current responsibilities as survey manager at Berkshire Design Group include project management, project scheduling, work quality analysis and client coordination. Tim has a BS degree in Biology from Wheaton College.

8:00 AM – 10:00 AM

Concurrent Session 1A: Updates on the New Vertical Datum and the Deprecation of the U.S. Survey Foot

NGS has updated "Blueprint for the modernized NSRS, Part 3: "Working in the modernized NSRS." In this updated document, we have described new types of coordinates, the role of passive control, and the role of OPUS. Another recent event was the official deprecation of the U.S. Survey Foot. This workshop will introduce participants to these new concepts as they pertain to the new geopotential (vertical) datum and we will discuss what the Deprecation of the U.S. Survey Foot really means.

Daniel J. Martin, Northeast Regional Geodetic Advisor, NOAA/NOS/National Geodetic Survey

Dan Martin works for the National Geodetic Survey and has been the Northeast Regional Geodetic Advisor since May of 2015. As the Regional Advisor, he instructs local surveyors, state and municipal agencies, and the geospatial community at large, on how to use and preserve the National Spatial Reference System and provides liaison between the National Geodetic Survey and the States of ME, NH, VT, MA, CT, RI, NY and NJ, as well as other federal agencies. He worked in Route Survey and Geodetic Survey sections of the Vermont Agency of Transportation from 1988 through 2003 and held the position of Geodetic Program Supervisor for the Agency from 1999 through 2003. In 2003, Dan began his career with the National Geodetic Survey as the Vermont State Geodetic Advisor. Dan is Past President and Fellow Member of the American Association for Geodetic Surveying (AAGS), he is also a member of the Vermont Society of Land Surveyors and the New Hampshire Land Surveyors Association.

8:00 AM – 10:00 AM

Concurrent Session 1B: Convention Exhibitor Demonstrations

During this two-hour session, groups of attendees will rotate between convention exhibitor demonstrations. There will be ample time to ask questions as you learn about exhibitor products and services.

Moderator: Brian E. Koczela, PLS, Owner, BEK Associates

Brian graduated in 1982 with a B.S. degree in Forest Land Management from the University of New Hampshire. He has been a land surveyor since 1986, from working on small house lots to managing the day-to-day survey needs of the $330 million Manchester Street Station power plant project in Providence RI for Bechtel Construction Company. In 1996 Brian opened the door of BEK Associates and has been providing professional services to clients in Massachusetts, New York & Vermont ever since.

10:30 AM – 11:15 AM

Concurrent Session 2A: Eversource Energy's Right of Ways

This session's featured presenters will discuss Eversource Energy's history of acquiring its Right of ways (ROWs), how ROWs were established; what monuments in the ROW represent, and how to read their monumented line plans.

Mark T. Olszewski, Supervisor, Survey Engineering, Eversource Energy

Mark started surveying in 1984. From 1984-1989 he served in the US Navy Seabees as an engineering aide. After enlistment, Mark stayed in California and worked for 10 years in the survey industry, mostly for Metropolitan Water District. Mark relocated to Massachusetts in 2000, where he currently is the survey supervisor for Eversource Energy in CT, MA, and NH.

Peter E. Tuttle, PLS, Survey Coordinator, Eversource Energy

Peter Tuttle is a Registered Professional Land Surveyor in the Commonwealth of Massachusetts with over 40 years of experience. Since joining Eversource Energy in 2016, Mr. Tuttle has been responsible for land surveying operations for eastern Massachusetts. He has extensive experience with right of way surveys, preparation of easement plans and documents, GPS and aerial photogrammetry survey control networks as well as boundary line, Land Court and ALTA title insurance surveys.

10:30 AM – 12:00 PM

Session 2B: Leveraging Online Genealogical Records in Surveying Research

This presentation will focus on how to access and utilize online genealogical records in the completion of the boundary research required in your work. Over the last decade or so, vast quantities of original source materials have been digitized and made easily available, much for free. This improved access has streamlined the research process and now allows land surveyors to complete their work more confidently.

A. Richard Vannozzi, MS, PLS, Assistant Professor, Surveying Engineering Technology, University of Maine

Mr. Vannozzi is a graduate of the University of Maine where, in 1984, he earned a BS in Forestry and, in 2006, earned an MS in Forestry, both with a surveying emphasis. Mr. Vannozzi has taught surveying across New England since 2003. Most recently, Mr. Vannozzi joined the faculty of the Surveying Engineering Technology program at The University of Maine in the Fall of 2019 where he teaches courses across the curriculum both in the traditional classroom and on-line. He is registered as a Professional Land Surveyor in Massachusetts have been licensed first in 1988 at the age of 25. He is a Past-President of the Massachusetts Association of Land Surveyors and Civil Engineers (MALSCE) and, in 1998, was recognized as MALSCE's Surveyor of the Year.

11:30 AM – 12:00 PM

Concurrent Session 3A: NCEES Update including the McKinley Research Project

Paul will discuss recent initiatives of the National Council of Examiners for Engineering and Surveying (NCEES), a nonprofit organization dedicated to advancing professional licensure for engineers and surveyors. His overview will include the findings of NCEES' research with McKinley Advisors on the types of resources, information, and initiatives needed to raise awareness of and boost recruitment in the professions of engineering and surveying.

Paul J. Tyrell, PE, PLS, LEED AP, Associate Vice President, HDR, Chair, Massachusetts Board of Professional Engineers and Land Surveyors, and NCEES Treasurer

Paul Tyrell is an accomplished professional engineer licensed in MA, ME, NH, RI, VT, CT, and NY and a professional land surveyor in MA. Additionally, he is a LEED and Design Build Institute of America accredited professional with 30 years of experience in land surveying, civil engineering, and construction management. Paul is an Associate Vice President with HDR Incorporated, an ENR leading E/A firm where he leads Alternate Delivery throughout New England. He has led design teams for some of Massachusetts's largest design build projects, including the $1.32 billion MBTA Green Line LRT Extension and the $400 million MassDOT Longfellow Bridge Rehabilitation Project. Paul currently chairs the Massachusetts Board of Professional Engineers and Land Surveyors, which oversees the Commonwealth's more than 15,000 professional engineers and land surveyors. He is currently Treasurer of NCEES, the National Council of Examiners for Engineering and Surveying.

1:30 PM – 2:30 PM

Concurrent Session 4A: Exploring the Mystery of Nantucket's Meridian Stones

Explore the history of Nantucket's Meridian Stones. In 1840, the astronomer and surveyor William Mitchell erected these two white marble obelisks on perpendicular sidewalks in the Town of Nantucket. Learn how he utilized them to contribute to safer nautical navigation.

Nikoline Bohr, Treasure Hunter

Nikoline Bohr is a Scientist, a historian, a treasure hunter, and an artist. Originally from Denmark, she grew up exploring the northern coast of Sjaeland. It is here her appreciation for nature, history, and adventure originates. She is a graduate of Rensselaer Polytechnic Institute where she earned a BS in physics and a minor in fine art. In recent years Nikoline has turned her focus to preserving our past. She spends her time exploring the lost history of historic Nantucket Island where she salvages items from locations where the soil is disturbed and the history hiding is in danger of being displaced, destroyed, and lost forever. In addition to her metal detecting and treasure hunting work on Nantucket, Nikoline has appeared on several episodes of History Channel's television series *Beyond Oak Island* as a treasure hunter and metal detecting expert.

1:30 PM – 2:30 PM

Concurrent Session 3B: 250 CMR Overview

During this session, Ken will discuss 250 CMR, a compilation of Massachusetts Board of Registration of Professional Engineers and Land Surveyors regulations. Intended to protect the public health, safety, and welfare, 250 CMR establishes requirements and procedures for registration of professional engineers and professional land surveyors, prescribes standards of professional conduct to be followed by these engineers and land surveyors, and assures the proper performance of the duties of the MA Board of Registration.

Kenneth Anderson, PLS, Owner, Anderson Surveys, Inc., and Member, Massachusetts Board of Professional Engineers and Land Surveyors

Licensed in 1983, Ken is fully qualified as an expert witness in boundary law disputes and has been retained by clients to act as an expert witness in Land Court and Superior Court. He has also been retained to act as an expert witness by the Commonwealth of Massachusetts Division of Professional Licensure for the Board of Registration of Professional Engineers and Land Surveyors. Ken is a former adjunct professor at Wentworth Institute of Technology, past president of the Massachusetts Association of Land Surveyors and Civil Engineers, and he was a trustee of The Engineering Center Education Trust for over ten years. In February 2020 Governor Baker appointed him to the Board of Registration of Professional Engineers and Professional Land Surveyors.

2:45 PM – 6:00 PM

General Session: Three (not so) New Ways to Find Trouble

Sponsored by Beals and Thomas, Inc. and Feldman Geospatial

The first of two general sessions featuring nationally recognized industry leader, Kris Kline, this session focuses on: 1) Lands protected by the Public Trust Doctrine; 2) Easements and the Doctrine of Merger; 3) Slander of Title. These issues have recently come home to roost at the doorsteps of some unhappy land surveyors.

Kristopher M. Kline, PLS, GSI, President, 2Point, Inc.

Kristopher M. Kline, president of 2Point, Inc., has a four-year Bachelor of Science degree in General Science from Bridgewater College in Virginia. Kris has been involved in the surveying profession since graduation. He became licensed in North Carolina in 1991 and is a 1999 graduate of the North Carolina Society of Surveyors (NCSS) Institute. Kris served for 3 years as Chairman of the NCSS Education Committee. His present business focuses primarily on boundary and easement disputes. In 2003, Kris began offering continuing education courses in North Carolina on legal aspects of retracement. Since 2010, his teaching career has expanded to include conferences and seminars nationwide. Kris has presented several keynote addresses for state conventions, and is the author of six books, including "Rooted in Stone: the Development of Adverse Possession in 20 Eastern States and the District of Columbia," "Riparian Boundaries and Rights of Navigation," and "Prescriptive Easements & Related Principles."

8:30 PM – 9:30 PM

Treasure Hunting on Nantucket

After Friday's dinner, sit back and listen to Nikoline Bohr discuss hunting for buried treasure on the island of Nantucket. During her talk, Nikoline will discuss ethical treasure hunting with a focus on historical preservation. She'll go on to present one of her more interesting location stories and have time to answer a few questions.

Nikoline Bohr, Treasure Hunter

Saturday, March 4, 2023

Featured Sessions

8:00 AM – 12:30 PM

General Session: Three More Ways to Find Trouble: Common Scheme, Part Performance, and Tax Maps

Sponsored by Beals and Thomas, Inc. and Feldman Geospatial

During this half-day session, Kris will consider two unusual methods to transfer title – the Common Scheme Doctrine and the concept of Part Performance of an Oral Contract. In addition, Kris will discuss the effects of tax maps on property titles.

Kristopher M. Kline, PLS, GSI, President, 2Point, Inc.

Kristopher M. Kline, president of 2Point, Inc., has a four-year Bachelor of Science degree in General Science from Bridgewater College in Virginia. Kris has been involved in the surveying profession since graduation. He became licensed in North Carolina in 1991 and is a 1999 graduate of the North Carolina Society of Surveyors (NCSS) Institute. Kris served for 3 years as Chairman of the NCSS Education Committee. His present business focuses primarily on boundary and easement disputes. In 2003, Kris began offering continuing education courses in North Carolina on legal aspects of retracement. Since 2010, his teaching career has expanded to include conferences and seminars nationwide. Kris has presented several keynote addresses for state conventions, and is the author of six books, including "Rooted in Stone: the Development of Adverse Possession in 20 Eastern States and the District of Columbia," "Riparian Boundaries and Rights of Navigation," and "Prescriptive Easements & Related Principles."

8:00 AM – 5:30 PM

Separate Session: Spring 2023 MALSCE Surveyor in Training Refresher Course

Clark R. Donkin, PLS, District Survey Supervisor, MassDOT Highway Division

2023 MALSCE Convention

Exhibitors

The MALSCE Board of Directors and Convention Planning Committee would like to thank the following Convention Exhibitors for participating in our annual convention:

Benjamin Franklin Cummings Institute of Technology
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Phone: 877/400-2348
Meredith Quinn: dpcs@franklincummings.edu

Franklin Cummings Tech (formerly BFIT) offers Professional Land Surveying courses in the evenings. Most courses are entirely online, and they all count for academic credit. To learn more and express interest, go to franklincummings.edu/academics/dpcs/land-surveying or google "Franklin Cummings Land Surveying."

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Shaun Vincent: 413/655 1458, shaun.vincent@bluesky-world.com

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Rick Ladd: 603/490-8656, rladd@cadnetservices.com

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Exhibitors (Continued)

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Phone: 240/676-4762
Dan Martin: dan.martin@noaa.gov

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Exhibitors (Continued)

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2023 MALSCE Convention

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2023 MALSCE Convention

PDH Tracking Sheet

Name: _____

Organization Name: _____

Address: _____

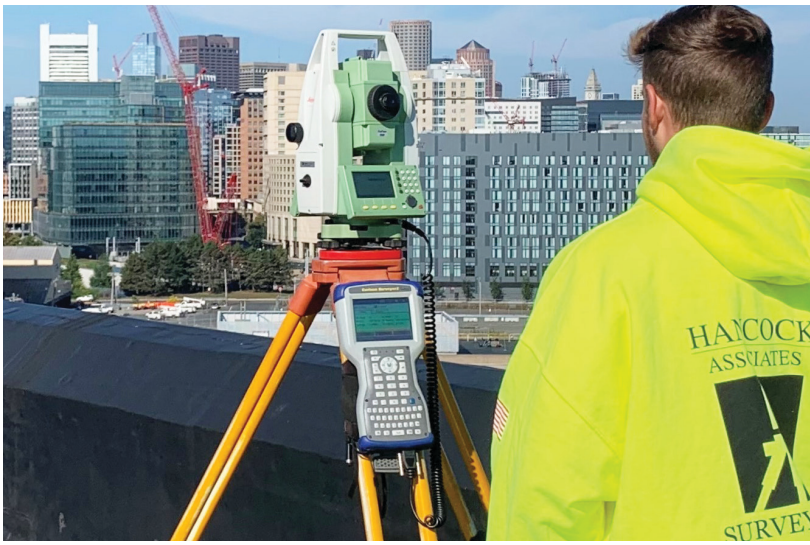
City/State/Zip: _____

(All PDHs for MA unless otherwise listed.)

Friday, March 3, 2023	
❑ **Session 1A:** Updates on the New Vertical Datum and the Deprecation of U.S. Survey Foot	2 PDHs
❑ **Session 1B:** Convention Exhibitor Demonstrations	2 PDHs
❑ **Session 2A:** Eversource Energy's Right of Ways	0.75 PDH
❑ **Session 2B:** Leveraging Online Genealogical Records in Surveying Research	1.5 PDHs
❑ **Session 3A:** NCEES Update including McKinley Research Project	0.5 PDH
❑ **Session 3B:** 250 CMR Overview	1 PDH
❑ **Session 4A:** Exploring the Mystery of Nantucket's Meridian Stones	1 PDH
❑ **General Session:** Three (not so) New Ways to Find Trouble	3 PDHs
Saturday, March 4, 2023	
❑ **General Session:** Three More Ways to Find Trouble: Common Scheme, Part Performance, and Tax Maps	4 PDHs

Do not return this form. Keep it for your records.

Cool People
Cool Projects
Cool Company



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Updates on the new Vertical Datum & Depreciation of the USft

Massachusetts Association of Land Surveyors and Civil Engineers
March 03, 2023

Dan Martin
Northeast Regional Geodetic Advisor
ME, NH, VT, MA, CT, RI, NY, NJ
Dan.martin@noaa.gov
240-676-4762

Bottom Line, Up Front

- If you do geospatial work in the USA…
- and you work in the National Spatial Reference System..
- every product you've ever made…
  - every survey…
  - every map…
  - every lidar point cloud…
  - every image…
  - every DEM…
  - WILL have ***outdated*** coordinates on it in the next few years.

Let's talk about what this means, why it is happening, and how it will affect things going forward

North American-Pacific Geopotential Datum of 2022

NAPGD2022

(pronounced: nap-jee-dee)

NOAA's National Geodetic Survey Positioning America for the Future geodesy.noaa.gov

Overview NAPGD2022

- primary access via GNSS and geoid (think OPUS)
- accurate continental **gravimetric** geoid
- aligned with:
  1) --TRF2022
  2) **global** mean sea level (GMSL)
- monitor time-varying nature of gravity
  - via the Geoid Monitoring Service (GeMS)

Names

The Old:

Orthometric Heights
- NAVD 88

Normal Orthometric Heights
- PRVD 02
- VIVD09
- ASVD02
- NMVD03
- GUVD04

Dynamic Heights
- IGLD 8[illegible]

Gravity
- IGSN[illegible]

Geoid Undulations
- GEOID[illegible]2B

Deflections of the Vertical
- DEFLEC[illegible]2B

The New:

The N[illegible]ific Geopotential Datum of 2022 ([illegible]GD2022)

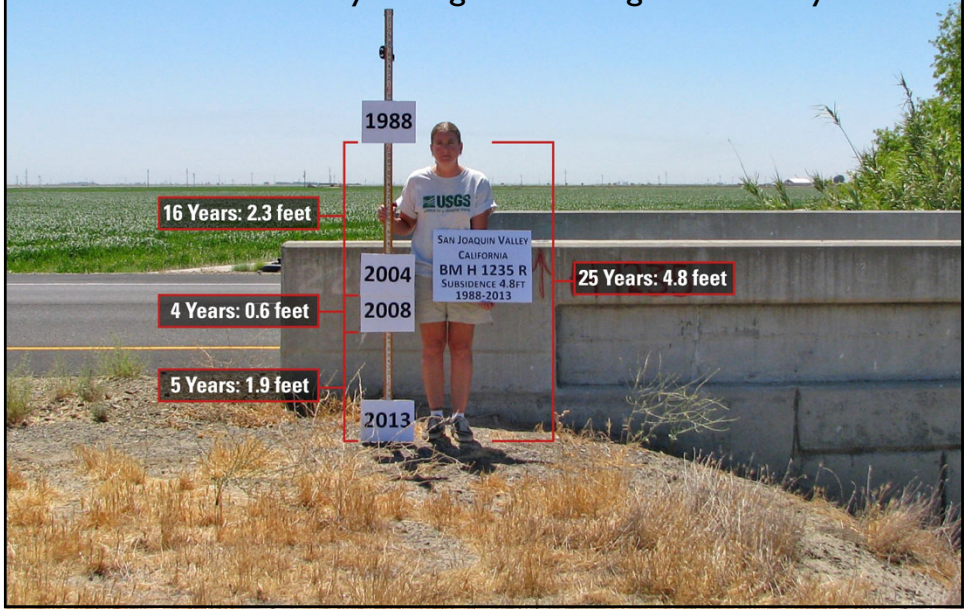
- Will include GEOID2022

one vertical datum

pole-to-equator

Passive marks may lie still… but they still may lie!

small instability x long time = large inaccuracy



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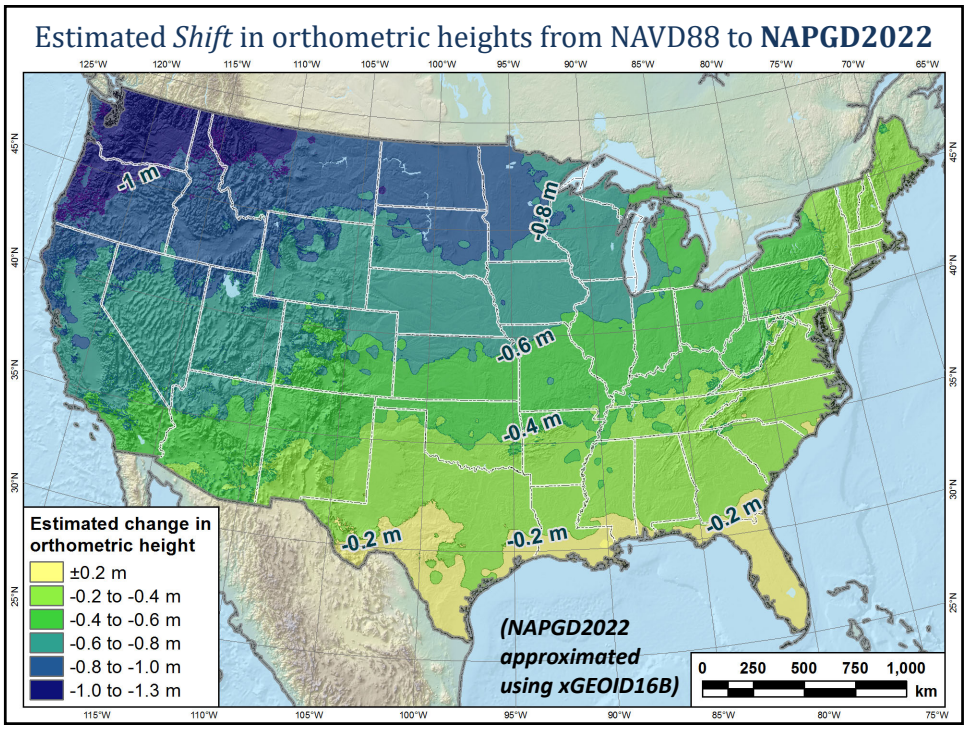
Shift and Drift

- One time shift NAVD 88 → NAPGD2022
  - New Vertical Transformation Model (Vertcon)
- Small drift over time??
  - Intra Frame Deformation Model (IFDM)



The wrong question, circa 2022:

"What's the position/height of that point?"

The right question, circa 2022:

"What's the position/height of that point, **on some specific date**?"

Drift…

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Intra-Frame Deformation Model of 2022

IFDM2022

Drift…

- **Everything** in the world moves
- Coordinates will be associated with the actual date when the data was collected!
- Velocities at all marks can be *estimated* using this Intra-Frame Velocity Model
- IFDM goal is to move collected data thru time to Reference Epochs for coordinate comparisons/analysis

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New Types of Coordinates

- Reported Coordinate
  - Any coordinate that is given to NGS without the data necessary to replicate them
- OPUS Coordinate
  - Coordinates that have been computed by OPUS, but have not been evaluated by anyone at NGS
  - May have the label of "Tied to the NSRS", but may also not.

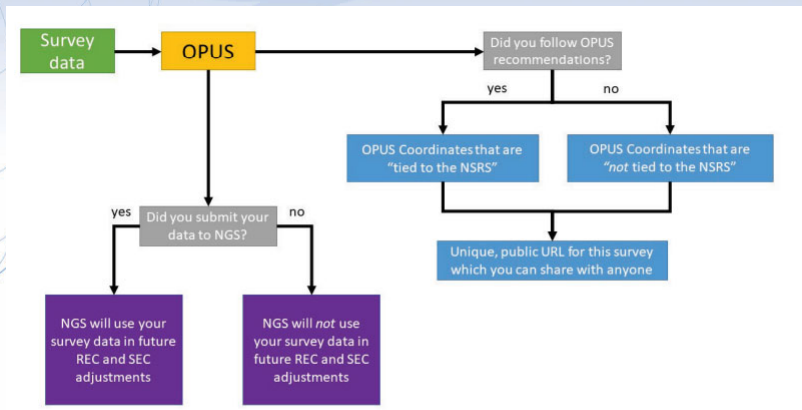


Figure 9: The two paths data are used in OPUS – to create OPUS coordinates and/or to create SECs and RECs

New Types of Coordinates - A two-track approach to coordinates

Reference Epoch Coordinates

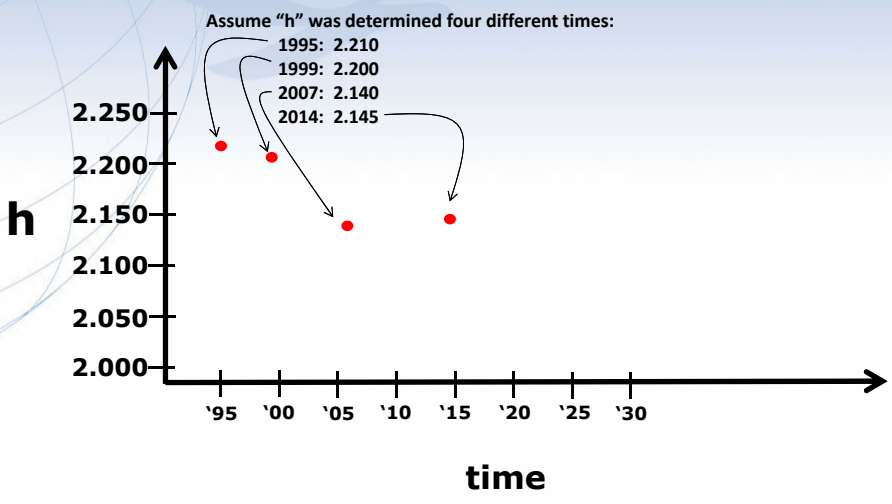
- An estimated "snapshot" of the entire network
- Every 5 or 10 years
- Similar to NAD 83(2011) epoch 2010.00

Survey Epoch Coordinates

- Answers: what were a mark's coordinates when it was last surveyed?
- Multiple SECs can show changes over time

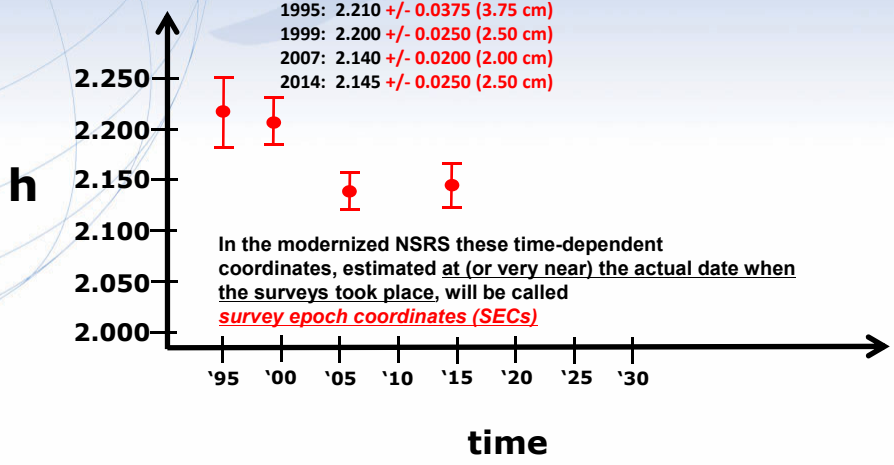
The Roll of Passive Control

- Secondary access to NAPGD2022
- Able to show stability/instability over time
  - Provides data to further enhance IFDM
- Calibration or validation of RTN measurements



All measurements have error. Shown here are the same Values of "h", but with their error estimates.

1995: 2.210 +/- 0.0375 (3.75 cm)
1999: 2.200 +/- 0.0250 (2.50 cm)
2007: 2.140 +/- 0.0200 (2.00 cm)
2014: 2.145 +/- 0.0250 (2.50 cm)



In the modernized NSRS these time-dependent coordinates, estimated at (or very near) the actual date when the surveys took place, will be called *survey epoch coordinates (SECs)*

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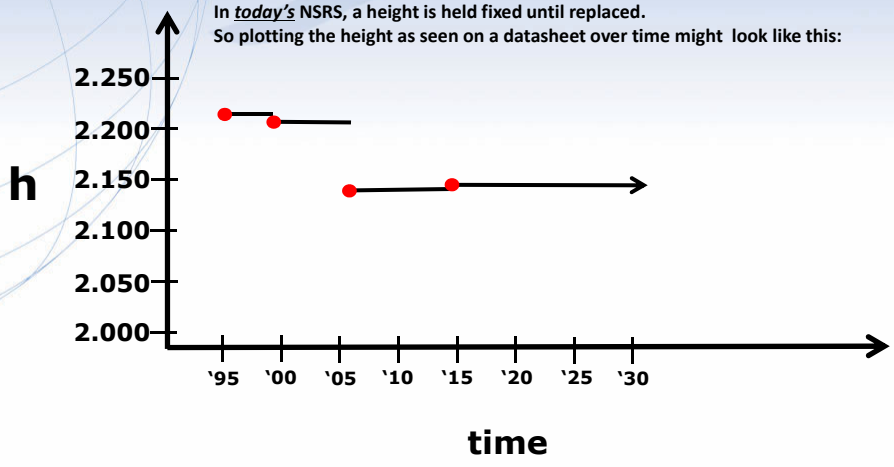
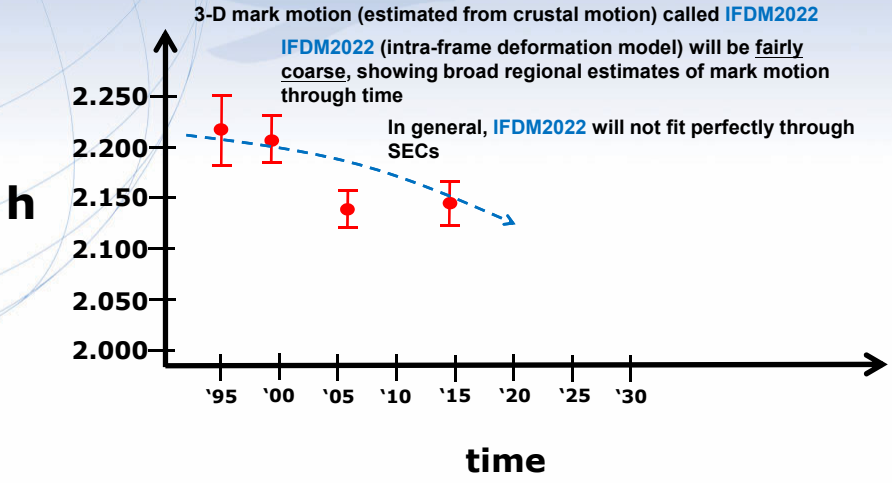
In *today's* NSRS, a height is held fixed until replaced.
So plotting the height as seen on a datasheet over time might look like this:



In the *modernized* NSRS we will also have an estimate of 3-D mark motion (estimated from crustal motion) called IFDM2022

IFDM2022 (intra-frame deformation model) will be fairly coarse, showing broad regional estimates of mark motion through time

In general, IFDM2022 will not fit perfectly through SECs



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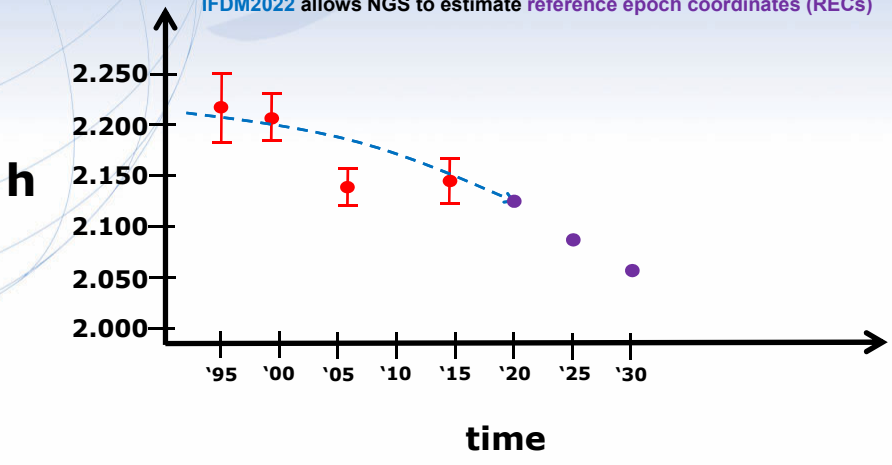
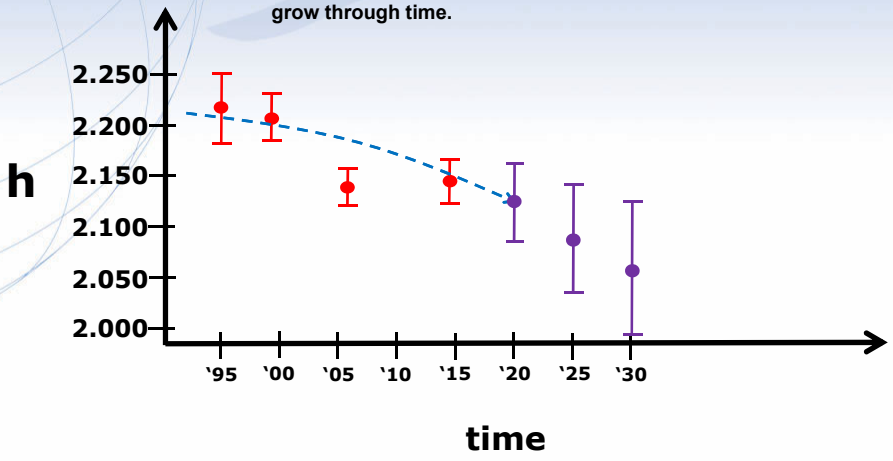
Combining the same observations that were used to create SECs with IFDM2022 allows NGS to estimate reference epoch coordinates (RECs)



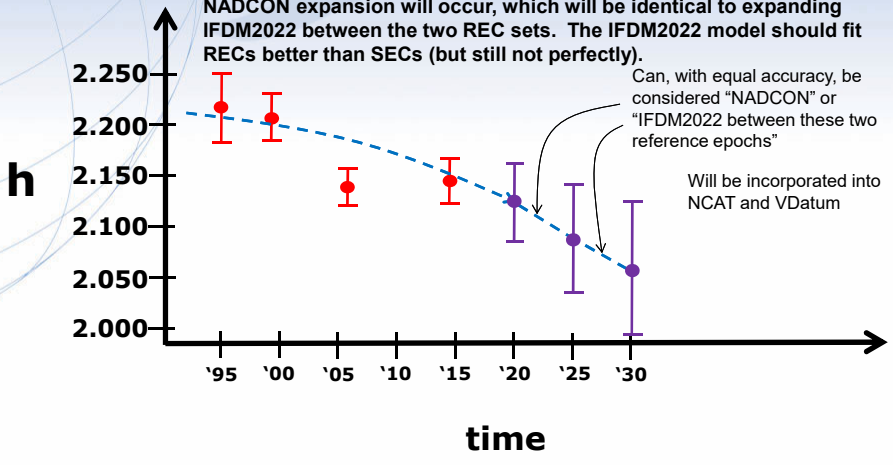
In the absence of new survey data, error estimates will grow through time.

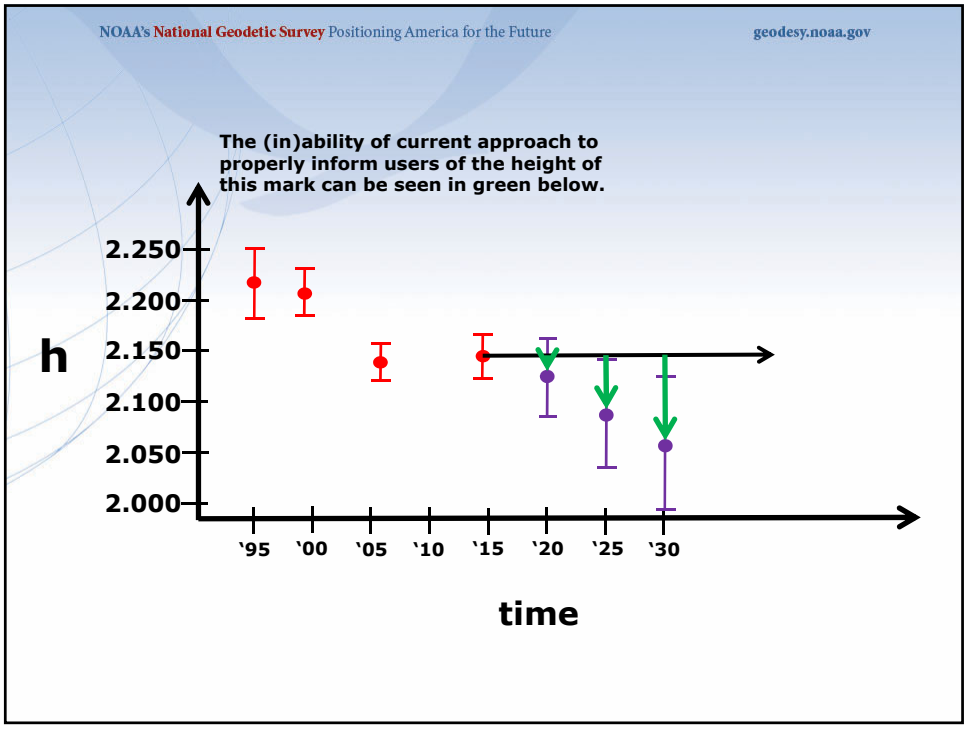


Side note: As each new REC set is created beyond the first, a NADCON expansion will occur, which will be identical to expanding IFDM2022 between the two REC sets. The IFDM2022 model should fit RECs better than SECs (but still not perfectly).

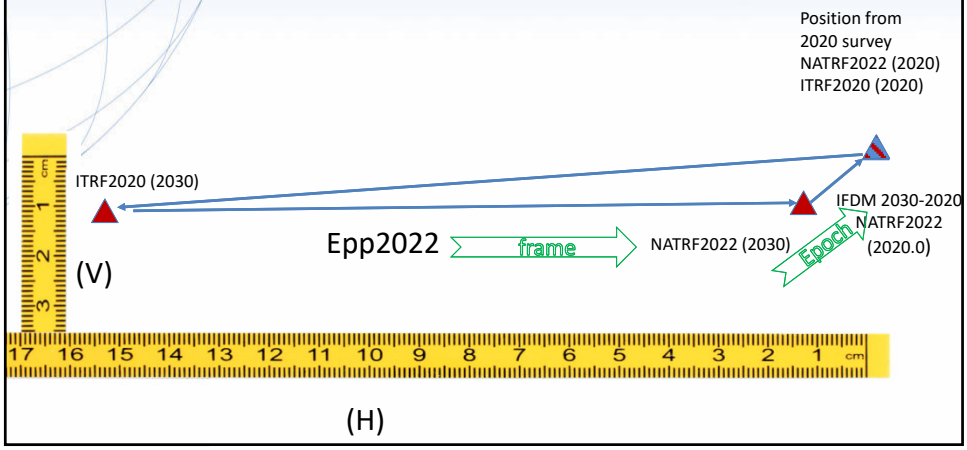
Can, with equal accuracy, be considered "NADCON" or "IFDM2022 between these two reference epochs"

Will be incorporated into NCAT and VDatum



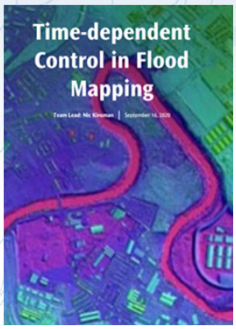


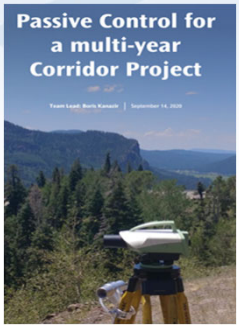
1. A survey done Jan 1, 2020
2. New Survey (same point) done Jan 1, 2030
3. Position of point in NATRF2022(2030)
4. Position of point in NATRF2022(2020)
5. If IFDM = 0, then NATRF2022 (2030) = NATRF2022 (2020)

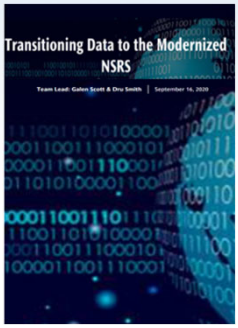


Use Cases – in Blueprint Part 3

- Four examples of how today's work becomes tomorrow's work







- These 'thought experiments' are the focus of today's webinar

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Transitioning Data

NGS will provide:

1. The source code, defining datasets, and robust documentation for NCAT and VDATUM so they can be incorporated into non-NGS software
2. Downloadable versions of NCAT & VDatum so they can be run locally
3. Sample input and output datasets so that users may test other transformation software against NGS' definitive transformations
4. Uncertainty estimates for transformations

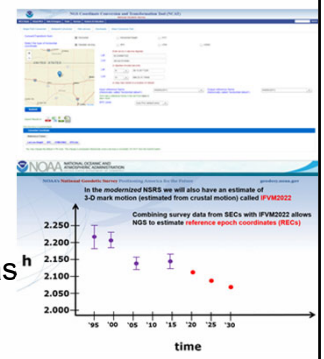
Note: Superseded historic transformation software will continue to be available on the NGS website, however they will not be updated.

GPS on Bench Marks for the Modernized NSRS

GPS on Bench Marks is not only about building the Transformation Tool to connect the past and future Datums. It is about preparing the country and our communities to take full advantage of the benefits of the Modernized NSRS

GPSonBM Campaign Goals:

- Data for NAVD 88 – NAPGD2022 Transformation Tools
- 2020.0 Reference Epoch Coordinates (REC's)
- Build time series of observations in areas of motion



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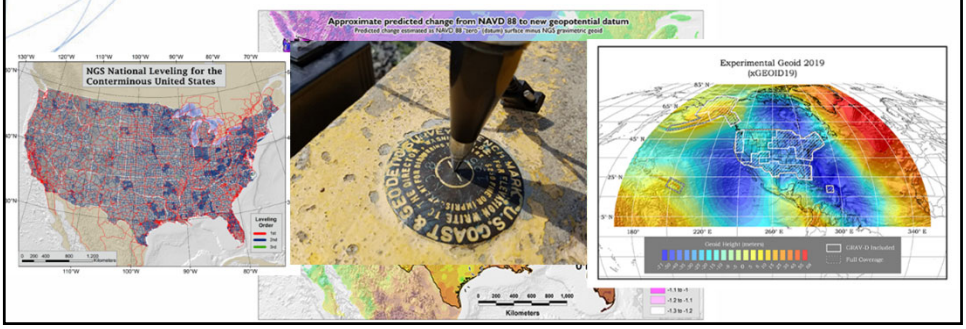
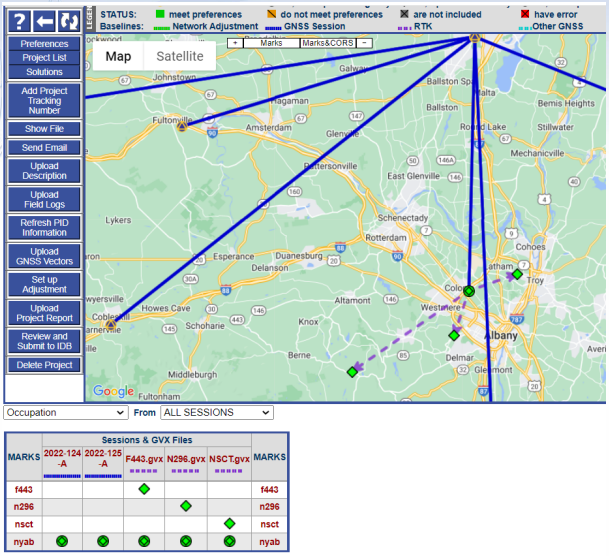
GPSonBM Measurements Connect Old & New Datums

Because the relationships between the old and new datums vary by location, the accuracy of the transformations in any particular place is directly related to the density of GPSonBM data available in that area.



OPUS Projects 5 (Beta)



Flood Mapping

Nic Kinsman

Special thanks to:
Amy Whetter, Scott Lokken, and Dan Prouty

BP3 Team and Flood Use Case Reviewers

Water in the streets during a high-tide event on a sunny day in Charleston, South Carolina *(toolkit.climate.gov)*

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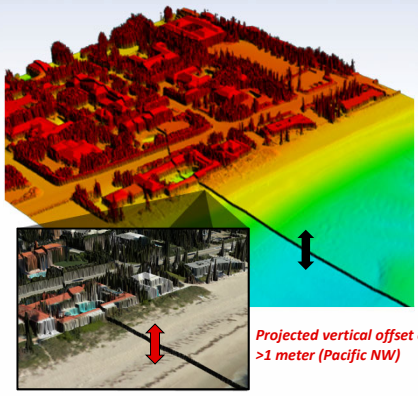
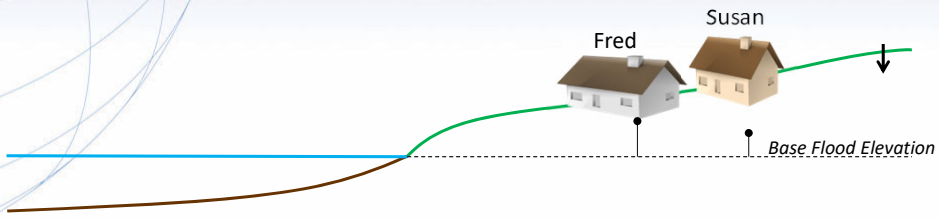
Minimizing negative impact of the SHIFT

- FEMA requires use of the NSRS in the NFIP wherever practicable
- Local Datum/NGVD 29 → NAVD 88
  - inhibited by non-digital data and limited transformation tools;
  - incomplete due to NAVD 88 extent/access exceptions
- As NFIP operates today, rolling nature of FIS restudies allows for the gradual adoption of modernized NSRS



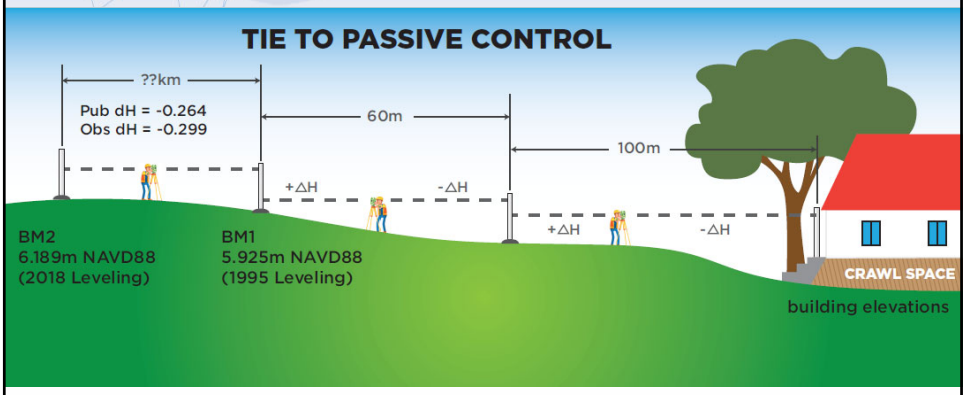
Projected vertical offset of >1 meter (Pacific NW)

Leveraging time-dependency to track the DRIFT

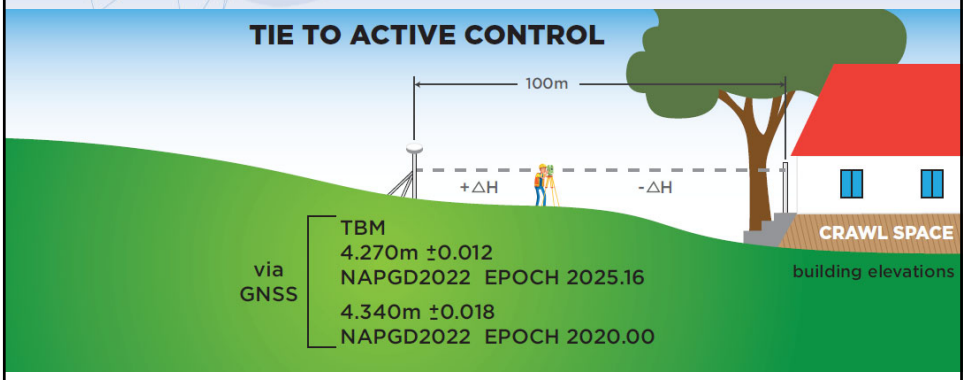


Not accounting for ground or mark motion can cause rate-setting to depart from true risk.

Added Convenience in NFIP Workflows



Added Convenience in NFIP Workflows



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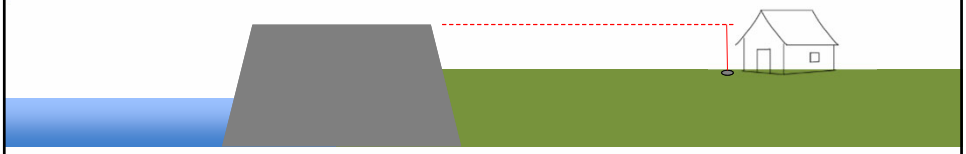
Why is Modernized NSRS Important to Passive Control?

- World is dynamic place
- Everything (including geodetic control) around us is moving
- Modernized NSRS will connect time-dependent positioning and passive control
- This becomes critical when passive control is used to build new infrastructure

Published Coordinates

- **RECs** 'stable' at project scales (5-10 years)



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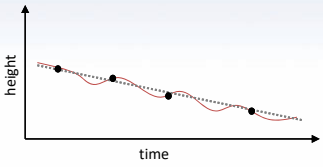
Published Coordinates

- **RECs** 'stable' at project scales (5-10 years)
- **SECs** reflective of narrow window in time
- **ACs** or ***Coordinate Function*** at CORS



How to Prepare

- Does your work currently require referencing NAVD 88?
- Do you collect the necessary metadata needed to move existing data into the new frames?
  - When was it surveyed?
  - How was it surveyed?
  - What was the source of control?
  - Is the geoid model adequate in your area to support transformation at the desired level? (more on that in a minute)

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How to Prepare

- Do you currently have GNSS equipment?
  - Remember that the primary method of establishing NAPGD2022 heights will be through GNSS and Geoid2022.
  - USFT vs IFT
- Store Data…not just coordinates!
  - If you have your original data, it can always be reprocessed later
    - Maintains the integrity of your survey
    - Better than a transformation

How to Prepare

- Do you have documents, manuals, contracts, etc…that include language re: datums?
- Do you have clients, subcontractors, in-house staff other than survey that need to be educated about the new datums?
- Are you going to have to support projects in old datums for a while? What is the plan for that?

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How to Prepare

- Research the areas you work in most
- How is the quality of the CORSs in those areas
- Do you have RTN available?
  - Take note of the reference frame for the RTN, and inquire of plans to update it to the new frames
- Take note of density of GPSonBM and likely accuracy of vertical transformation
- Conduct some GPSonBM in sparse areas

A tale of two feet

Two versions of "foot" in current use:

"Old" U.S. survey foot ⇨ "New" international foot

1 ft = 0.3048006096… m differ by 2 parts per million (ppm) or ~0.01 ft/mile **1 ft = 0.3048 m *exactly***

A ***real*** problem with ***real*** costs

Horizontal difference in coordinates due to difference between ift and Usft in MA

0.3 to 1.2

How did we get in this mess, and why is NGS involved?

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Who is responsible for standards?

Today:

National Institute of Standards and Technology

Who is responsible for standards?

Before 1901:

U.S. Coast and Geodetic Survey

Superintendent of C&GS also Superintendent of Office of Standard Weights & Measures

Congress is the Authority

Congress is the Authority

Per the U.S. Constitution
(Article I, Section 8, Clause 5)

"The Congress shall have Power … To coin Money … and fix the Standard of Weights and Measures"

Without uniformity, standards are useless

A short history of length

"Exact" copy of British Imperial Yard

Troughton Scale from England becomes U.S. standard

Congress legalizes use of metric syst…

…ard Meters Nos. 21 and 27 se…t f…m France

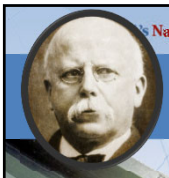
1789 … 1876 1888 1890

Chaos!

U.S. Co…stitution
Article I, S…ction 8, Clause …
Congress to "…fix Standard of Weights and Measures"

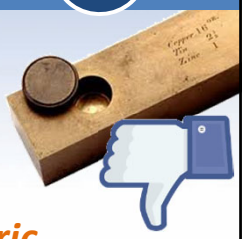
New Imperial Yard sent from England
Bronze Yard No. 11 new U.S. standard
0.022 mm shorter than Troughton Scale

Bronze Yard No. 11 travels back to England, *twice*
Different length – both times!



Out of chaos, *order*

1893



The Mendenhall Order

Thomas Mendenhall
Superintendent C&GS and Office of Weights & Measures (1889-1894)

The U.S. officially became metric

- ✓ Embraced meter
- ✓ Abandoned British Imperial Yard
- ✓ Declared foot defined by meter:

1 foot = 1200/3937 meter

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A new foot for a new century

1 foot = 0.3048 meter *exactly* (1 yard = 0.9144 m)

1901	1933	1952	1959
National Bureau of Standards created	New foot definition adopted by ANSI predecessor	New foot definition adopted by NASA predecessor	Adopted as "new" foot for entire U.S. (and world)

With one little exception…

Federal Register *temporary* exception 1959

This should have happened in 1989

The foot unit defined by this equation shall be referred to as the **U.S. Survey Foot** and it shall continue to be used, for the purpose given herein, **until such a time as it becomes desirable and expedient to readjust the basic geodetic survey networks in the United States, after which the ratio of a yard, equal to 0.9144 meter, *shall apply*.**"

Signed by NBS and C&GS directors, approved by Commerce Secretary, June 25, 1959

https://geodesy.noaa.gov/PUBS_LIB/FedRegister/FRdoc59-5442.pdf

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Why make the change and what are the choices?

Why make the change?

- **That was original intent (*over 60 years ago!*)**
- **Two "feet" is inefficient and causes confusion**
  - Leads to errors that cost money
  - Absurd to have "same" unit that differs by 2 ppm
  - Defeats purpose of having a length standard
- **Only recognized in *part* of U.S. for *some* things**
- **NGS software will support backward-compatibility**
- ***Now is the time***
  - Many other changes will be made for modernized NSRS
  - Change in foot trivial compared to other changes
  - Otherwise U.S. survey foot problems will never go away

What are the choices?

- **Do nothing** (i.e., NGS stays "metric" only)
  - States choose whatever foot they want
  - But feet will creep back into NGS products & services
- **Officially adopt U.S. survey foot for specific things**
  - U.S. survey foot for surveying and mapping
  - International foot for engineering (and everything else)
- **Use international foot for everything**
  - Only support 1 foot = 0.3048 meter, period
- **Use U.S. survey foot for everything** (highly unlikely)
- **Go entirely metric** (*good luck with that!*)

Putting the "best" foot forward

- **U.S. survey foot will be retired**
  - Not supported for SPCS2022 (or any part of modernized NSRS)
  - Only international foot will be supported
- **Effective December 31, 2022**
  - Independent of NSRS modernization
  - But U.S. survey foot will still be supported for legacy products (e.g., "old" State Plane)
- **Official action has been taken…**

Federal Register Notice (Oct 5, 2020)

FEDERAL REGISTER
The Daily Journal of the United States Government

Notice

Deprecation of the United States (U.S.) Survey Foot

A Notice by the National Institute of Standards and Technology and the National Oceanic and Atmospheric Administration on 10/05/2020

(Note: this image is hyperlinked to the Federal Register page)

PUBLISHED DOCUMENT

AGENCY:

The National Institute of Standards and Technology and National Geodetic Survey (NGS), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

ACTION:

Notice; final determination.

Start Printed Page 62699

SUMMARY:

The National Institute of Standards and Technology (NIST) and the National Geodetic Survey (NGS), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), have taken collaborative action to provide national uniformity in the measurement of length. This notice announces the

DOCUMENT DETAILS

Printed version: PDF

Publication Date: 10/05/2020

Agencies: National Institute of Standards and Technology; National Oceanic and Atmospheric Administration

Dates: Use of the U.S. survey foot will be deprecated on December 31, 2022.

Document Type: Notice

Document Citation: 85 FR 62698

Final determination:

Describes public comments received, along with the plan, resources, training, and other information for an orderly transition

What about NSRS Modernization?

- **Deprecation effective Dec 31, 2022**
  - NSRS modernization will happen later
- **For users of *existing* NSRS:**
  - Deprecation will have no effect
  - U.S. survey foot will still be supported
  - ***Difference in dates will NOT create a problem***
- **Will give more time to make the transition**

U.S. survey foot will ***ALWAYS*** be supported by NGS for State Plane Coordinate Systems of 1983 and 1927

NOAA's National Geodetic Survey Positioning America for the Future geodesy.noaa.gov

In closing…

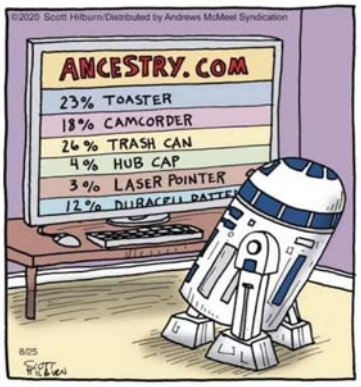
- **The foot problem created for convenience**
  - Intended as ***temporary***, for geodetic work ***only***
  - Keeping U.S. survey foot is an "anti-standard"
  - Single definition efficient, clean, and ***right thing to do***
- **NGS will help fix it**
  - Fully support backward compatibility
  - Will make simple and painless as possible
  - Foot change minor compared to other coming changes
- **This is about making things better for the *future***

Questions?

Dan Martin
Northeast Regional Geodetic Advisor
ME, NH, VT, MA, CT, RI, NY, NJ
Dan.martin@noaa.gov
240-676-4762

Leveraging on-line genealogical records in surveying research

MALSCE, Inc. Annual Conference



Presented by

A. Richard Vannozzi, MS, PLS
Assistant Professor,
Surveying Engineering Technology Program
University of Maine

anthony.vannozzi@maine.edu

March 3, 2023

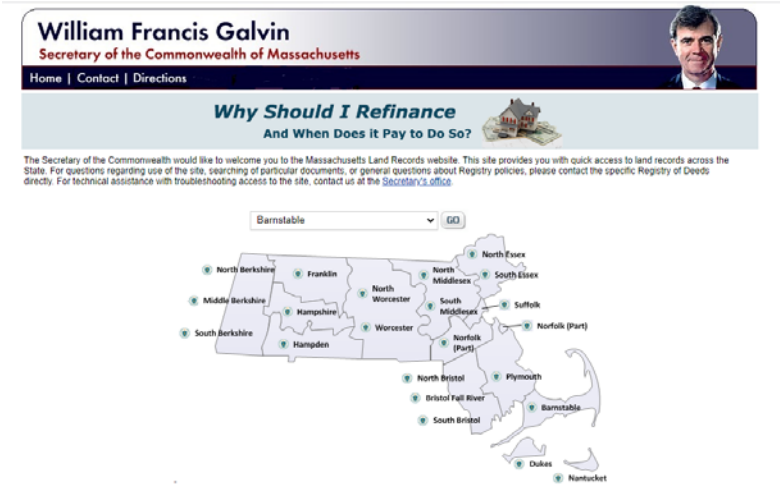
1

Topics to be covered

- Local Land Records: You all know this already?
- Americanancestors.org
- Massachusetts State Archives
- Massachusetts Historical Society
- Specialty/Regional Research Libraries
- Library of Congress
- Family Histories
- Town Histories
- Familysearch.org
- Case Study #1
- Case Study #2
- Implications on Normal Standard of Care

2

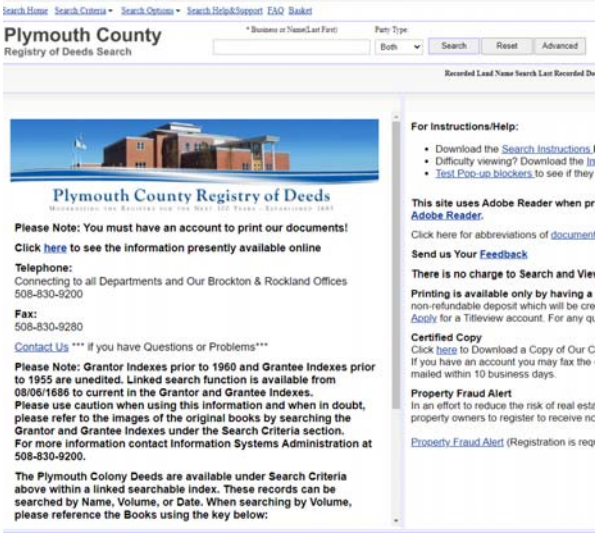
Land Records



https://www.masslandrecords.com/

3

Land Records



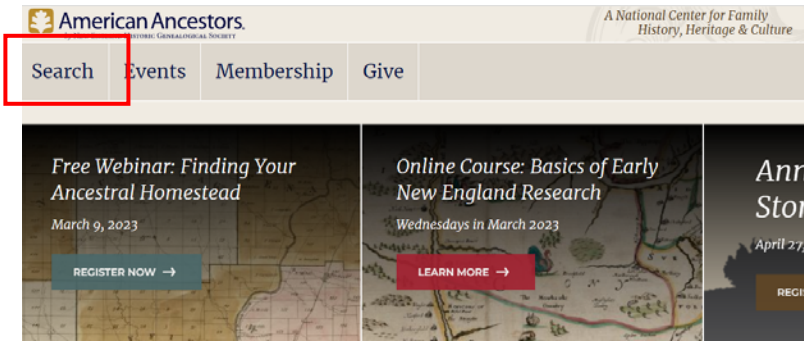
http://titleview.org/plymouthdeeds/

4

American Ancestors

https://www.americanancestors.org/

(New England Historical Society)



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American Ancestors

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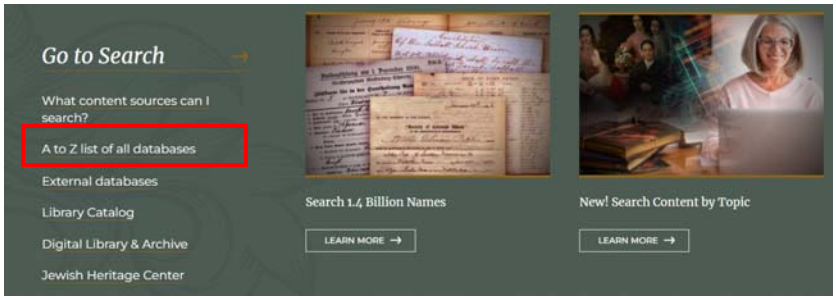

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American Ancestors

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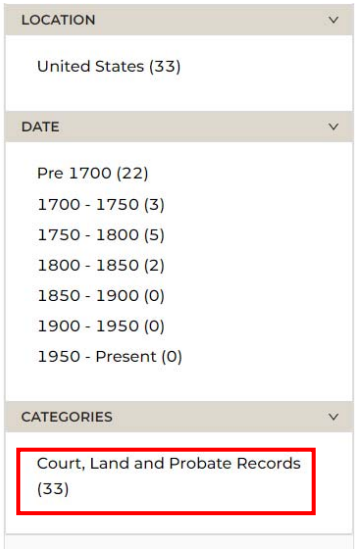

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American Ancestors

https://www.americanancestors.org/

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American Ancestors

https://www.americanancestors.org/

Middlesex County, MA: Abstracts of Court Records, 1643-1674
Middlesex County, MA: Probate File Papers, 1648-1871
New York: Abstracts of New York County Wills, 1662-1801
New York: Abstracts of Wills, Admins. and Guardianships, 1787-1835
New York: Albany County Deeds, 1630-1894
New York: Wills, 1626-1836
Norfolk County, MA: Index to Probate records, 1793-1900
Onondaga County, NY: Abstracts of Wills, 1795-1850
Onondaga County, NY: Guardianship Records, 1815-1849
Plymouth County, MA: Plymouth Court Records, 1686-1859
Plymouth County, MA: Probate File Papers, 1686-1881
Providence, RI: Index to Probate, 1646-1899
Suffolk County, MA: Index to Court of Common Pleas Cases, 1756-1776
Suffolk County, MA: Index to Probate Records, 1636-1893
Suffolk County, MA: Probate File Papers
Worcester County, MA: Index to Probate Records, 1731-1881
Worcester County, MA: Probate File Papers, 1731-1881

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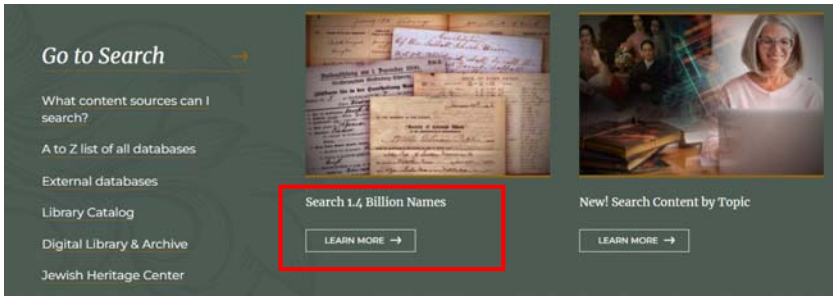
American Ancestors

https://www.americanancestors.org/



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American Ancestors

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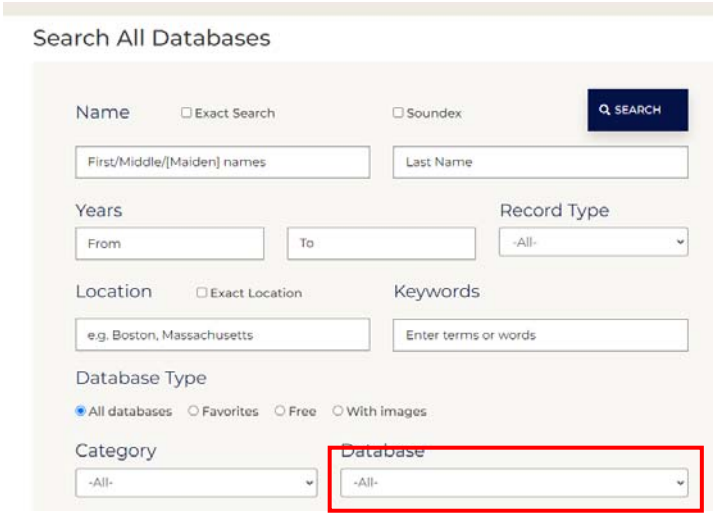

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American Ancestors

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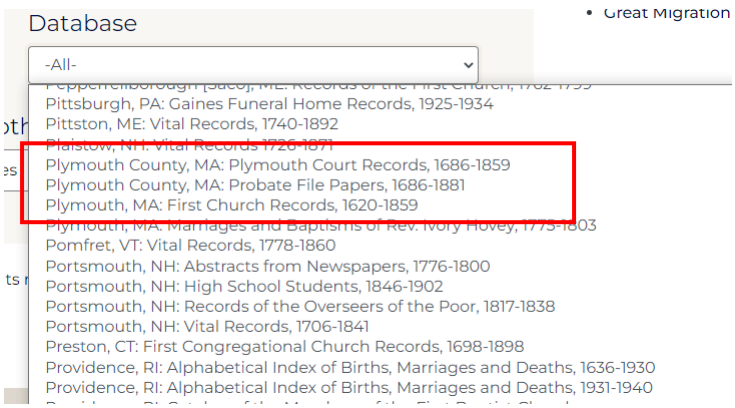

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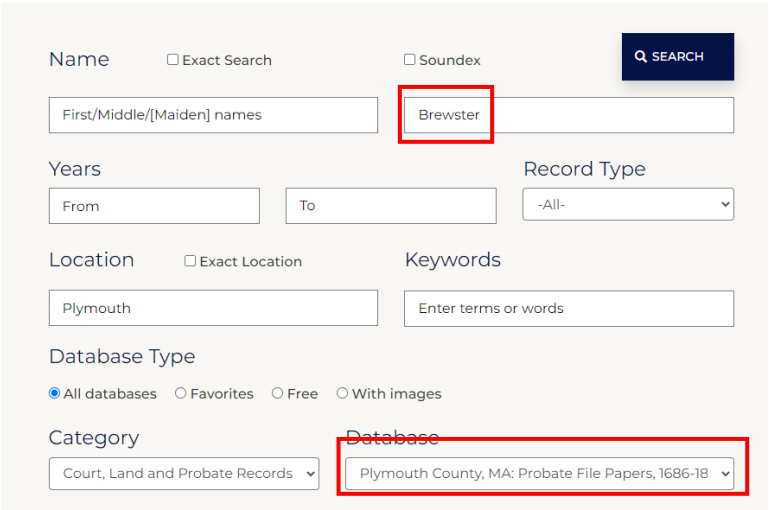
American Ancestors

https://www.americanancestors.org/

Search All Databases



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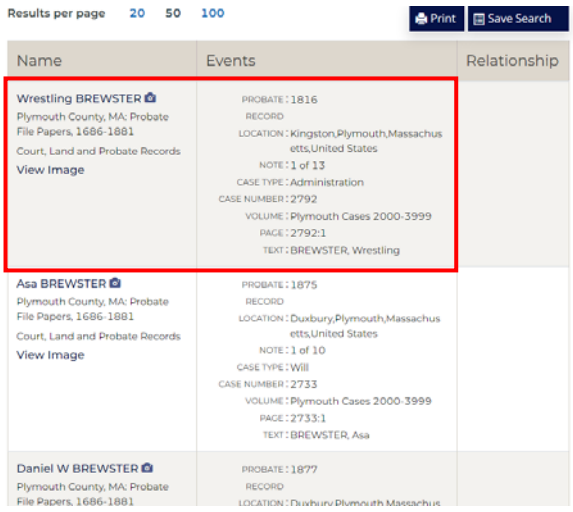
American Ancestors

https://www.americanancestors.org/



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American Ancestors

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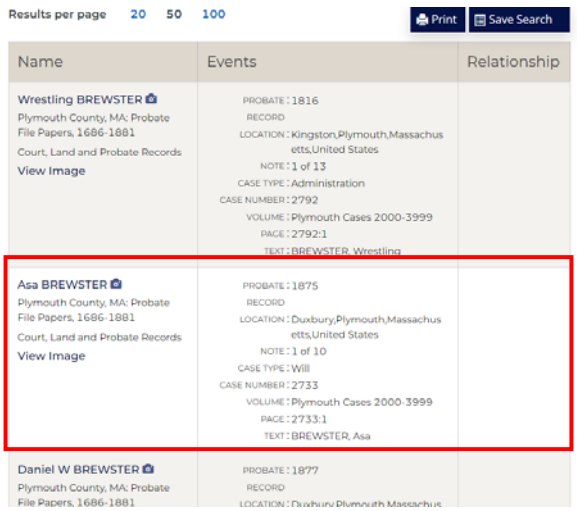

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American Ancestors

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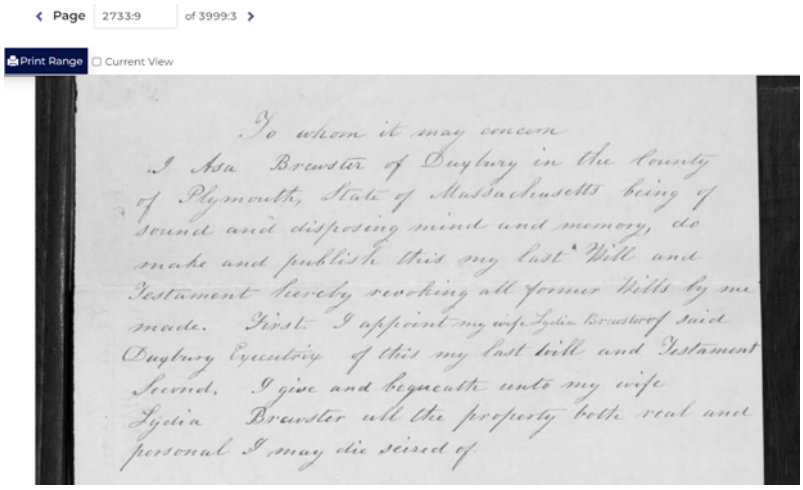

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Massachusetts State Archives

https://www.sec.state.ma.us/arc/

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Massachusetts State Archives

https://www.sec.state.ma.us/arc/arcdigitalrecords/digitalrecordsidx.htm

Additional Resources

State Library of Massachusetts DSpace Respository

Mass.gov

City of Boston Archives

Boston.gov

National Archives

Boston Public Library

Internet Archive

Harvard Antislavery Petitions Massachusetts Dataverse

A New Nation Votes American Election Returns, 1787-1825

Founders Online

American Ancestors

FamilySearch

Massachusetts Land Deeds

Early Vital Records of Massachusetts

Hathi Trust Digital Library

ARCHIVEGRID

WorldCat

Early Massachusetts Town Records

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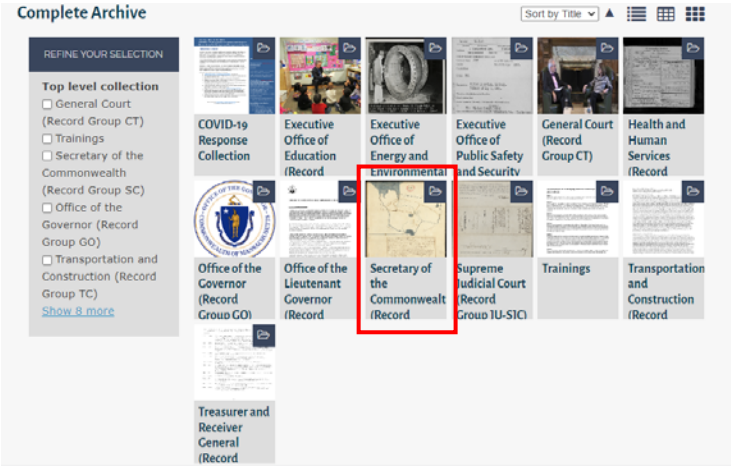
Massachusetts State Archives

http://digitalarchives.sec.state.ma.us/

http://digitalarchives.sec.state.ma.us/archive/



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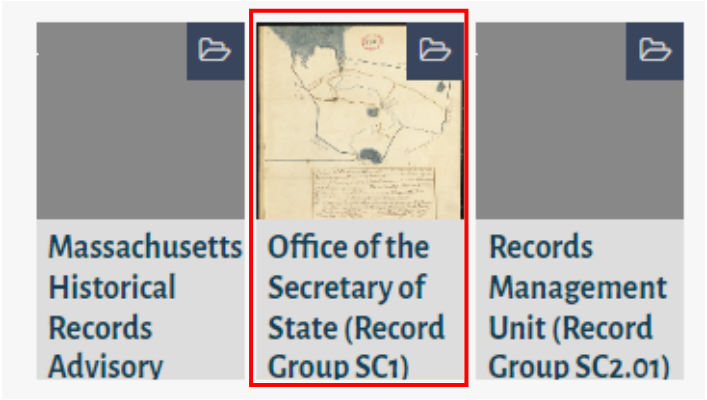
Massachusetts State Archives



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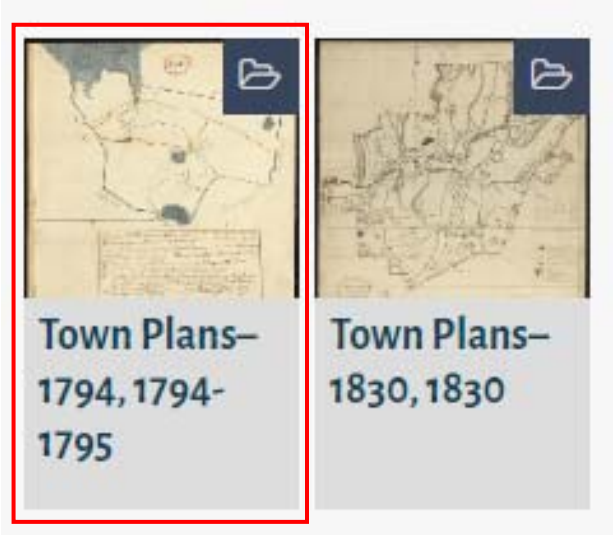

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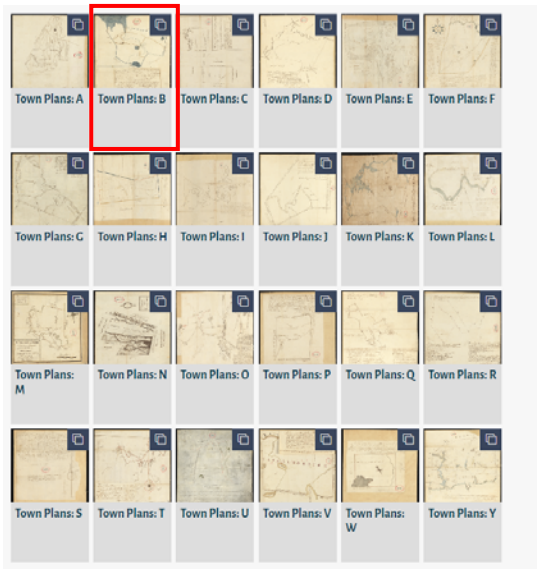

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Massachusetts State Archives

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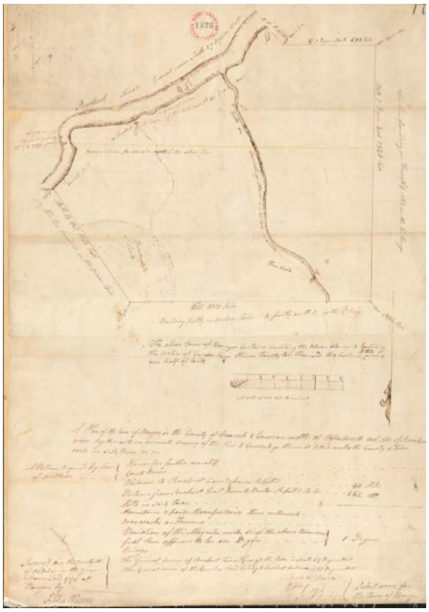
Massachusetts State Archives



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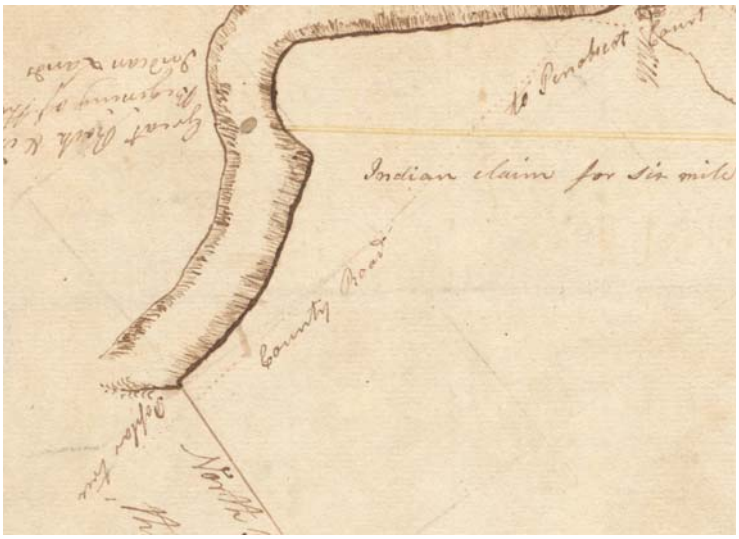
Massachusetts State Archives



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Massachusetts Historical Society

https://www.masshist.org/

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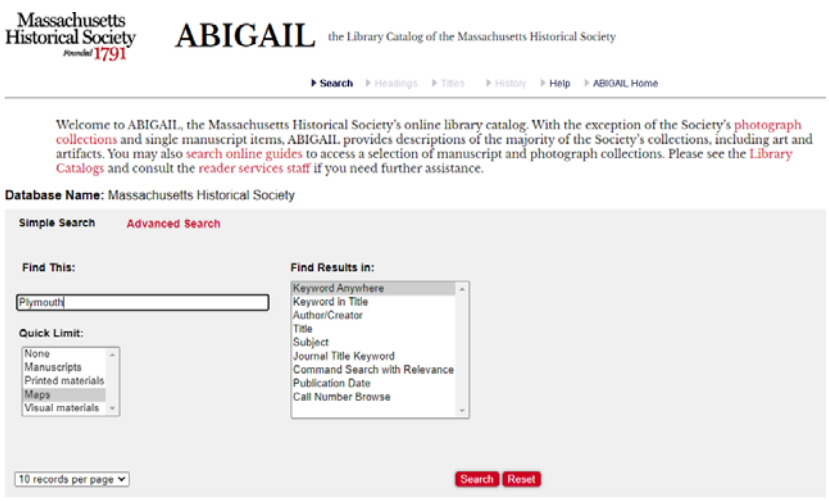
Massachusetts Historical Society



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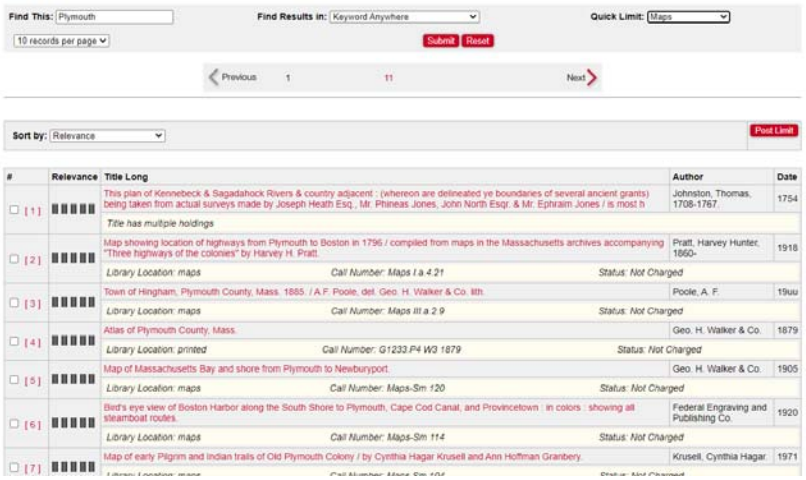

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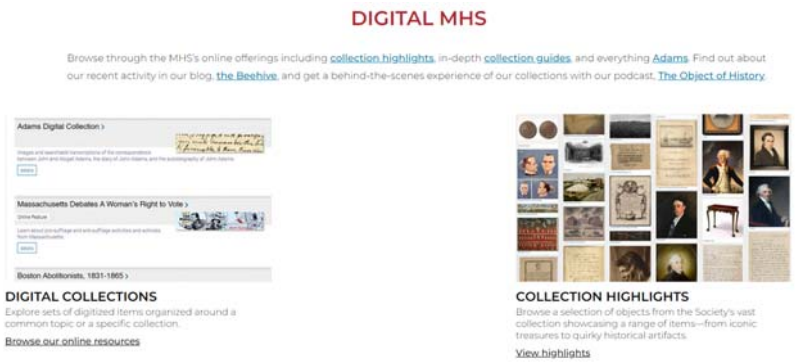

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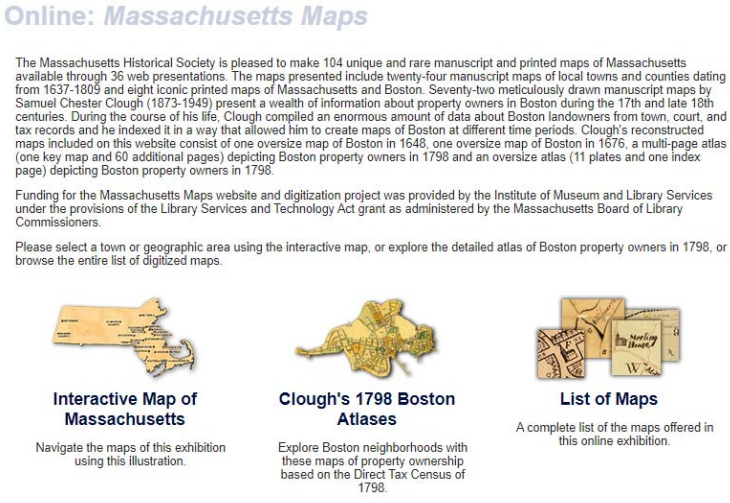

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Massachusetts Historical Society

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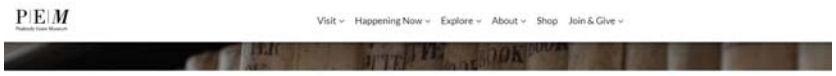
Peabody Essex Museum

Phillips Library

https://www.pem.org/visit/library



PEM's Phillips Library is among the oldest libraries in the country. Rich primary and secondary sources — including vast quantities of manuscripts, books, photographs, maps, broadsides, and ephemera — make it a productive location for research and discovery. We look forward to welcoming you here.

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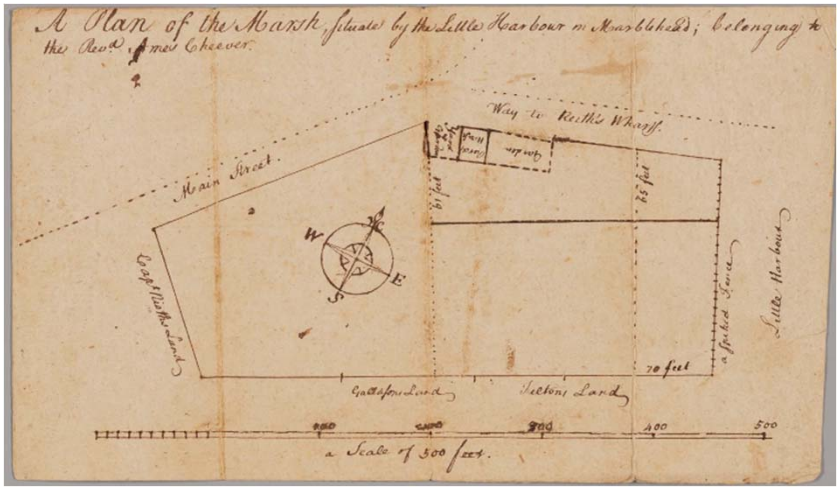
Peabody Essex Museum

Phillips Library



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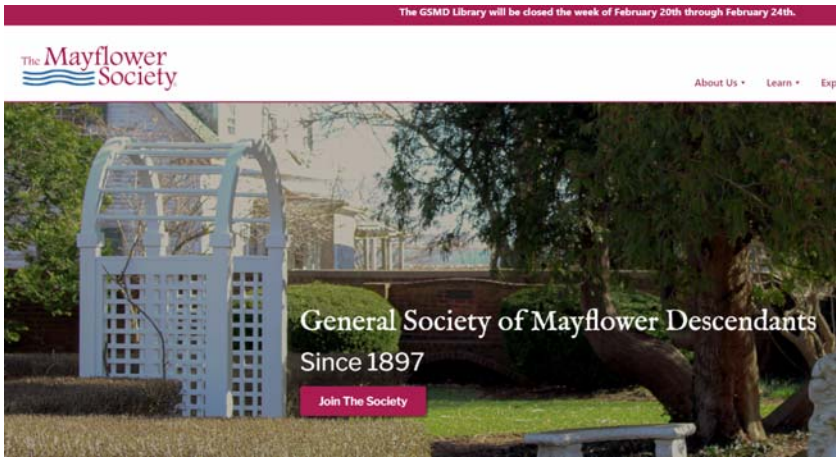
Mayflower Society

https://themayflowersociety.org/



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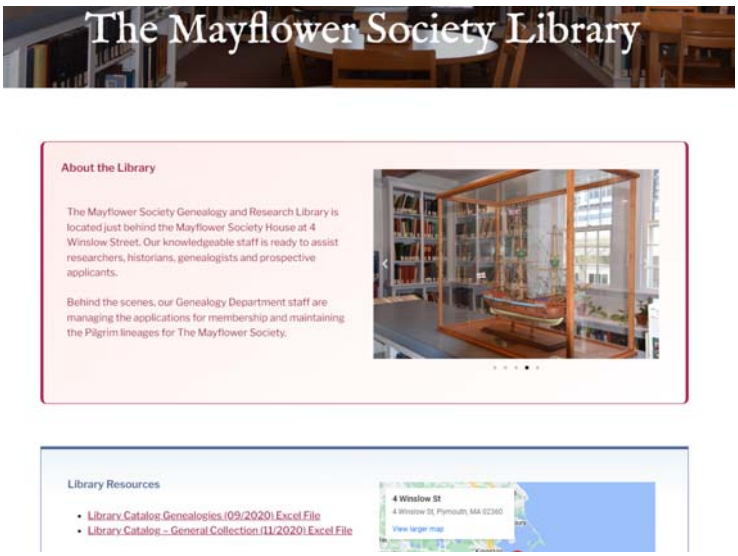
Mayflower Society



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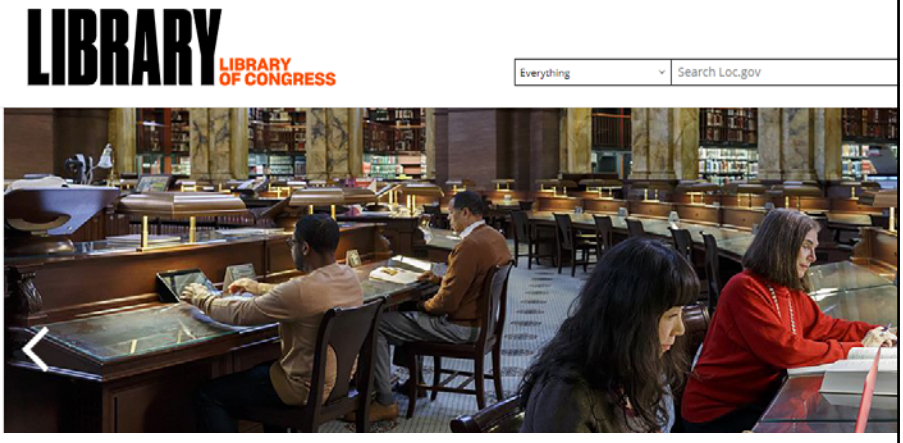
Library of Congress

https://www.loc.gov/



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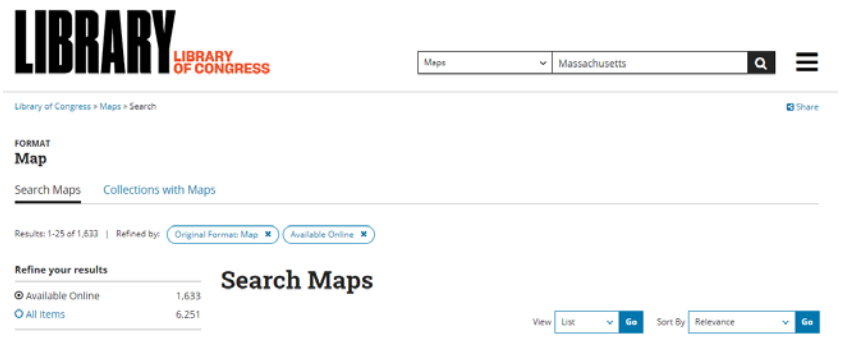

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https://www.loc.gov/

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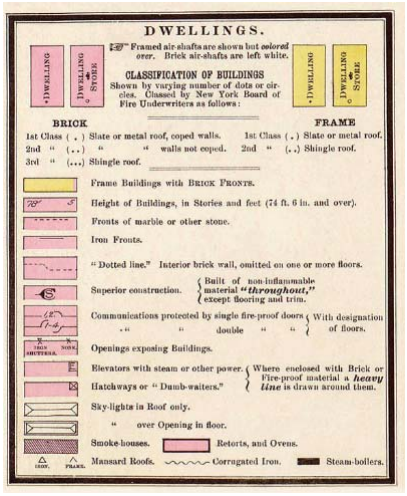
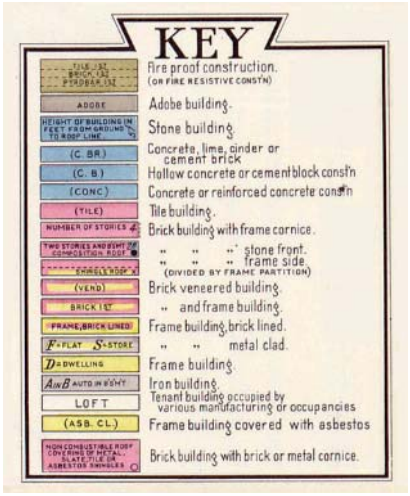
Library of Congress

https://www.loc.gov/collections/sanborn-maps/about-this-collection/





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Library of Congress

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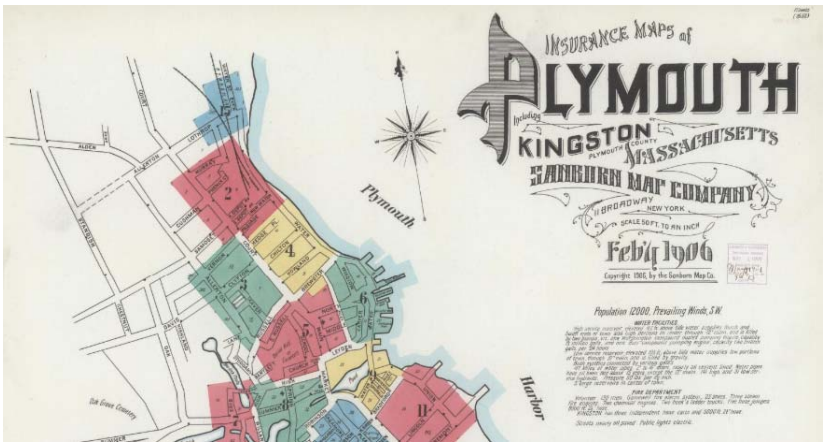

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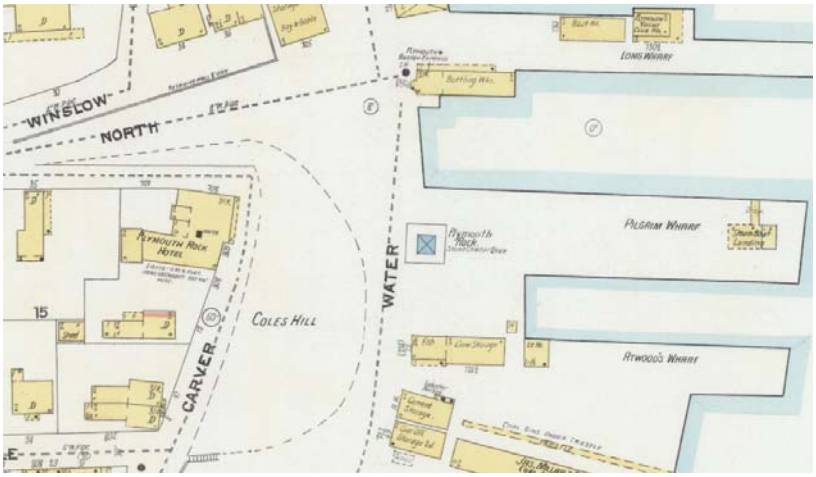

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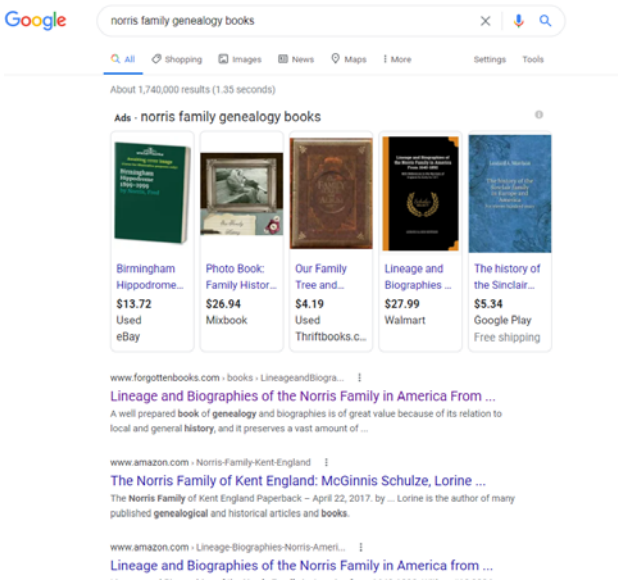
Genealogy Books



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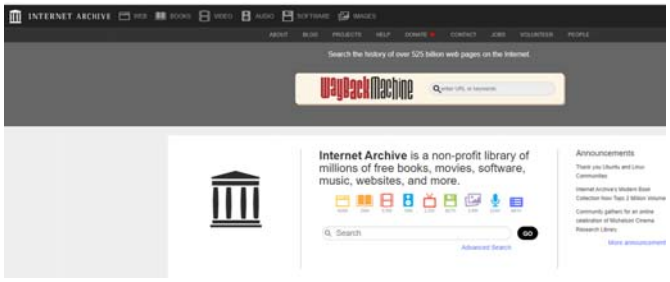
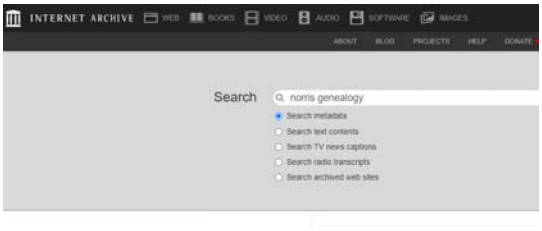
Genealogy Books

https://archive.org/





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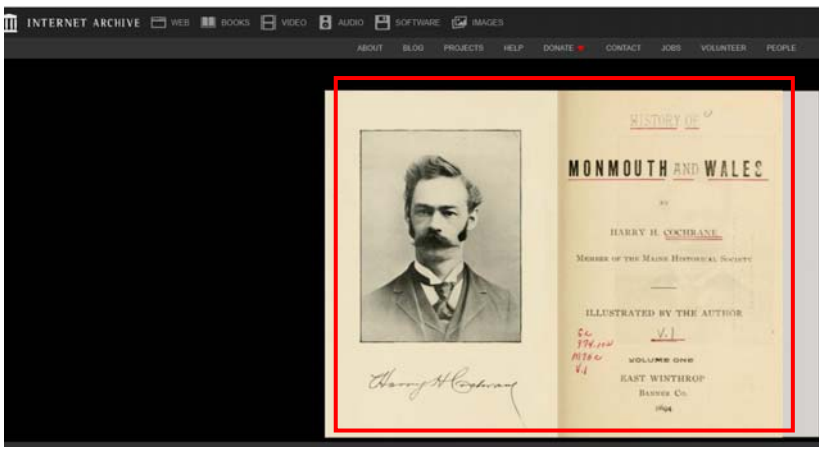
Town History Books

https://archive.org/details/historyofmonmout01coch



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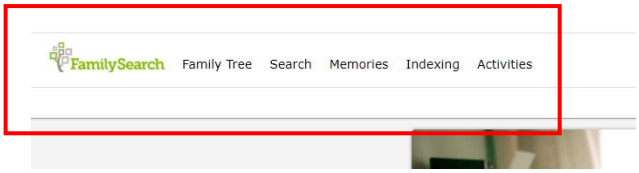
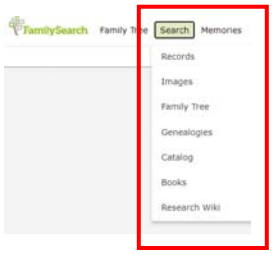
Family Search

https://www.familysearch.org/



- Free Membership
- Access to all content is free



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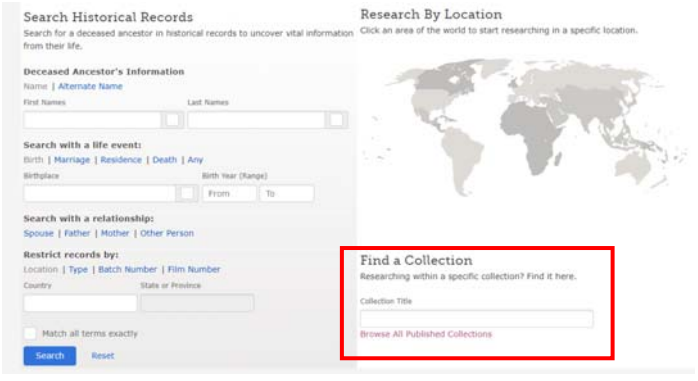
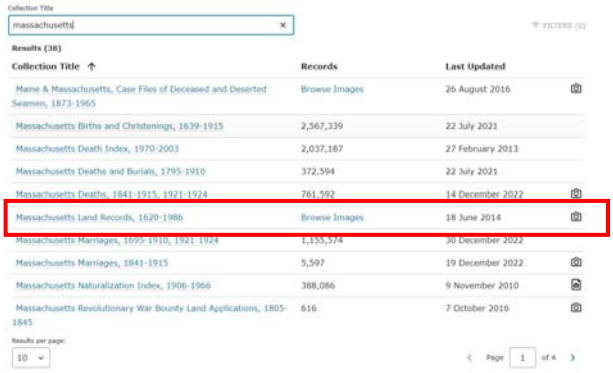
Family Search



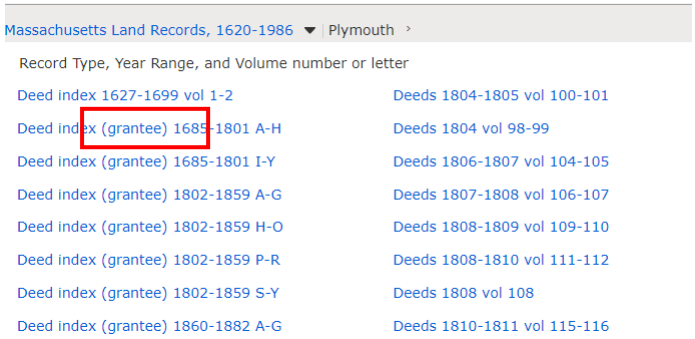
46

Family Search



47

Family Search



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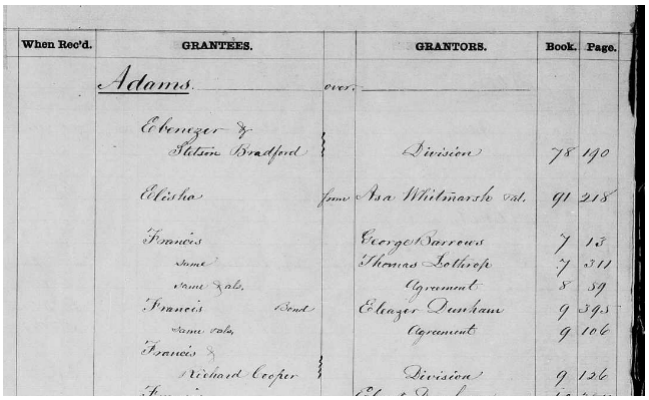
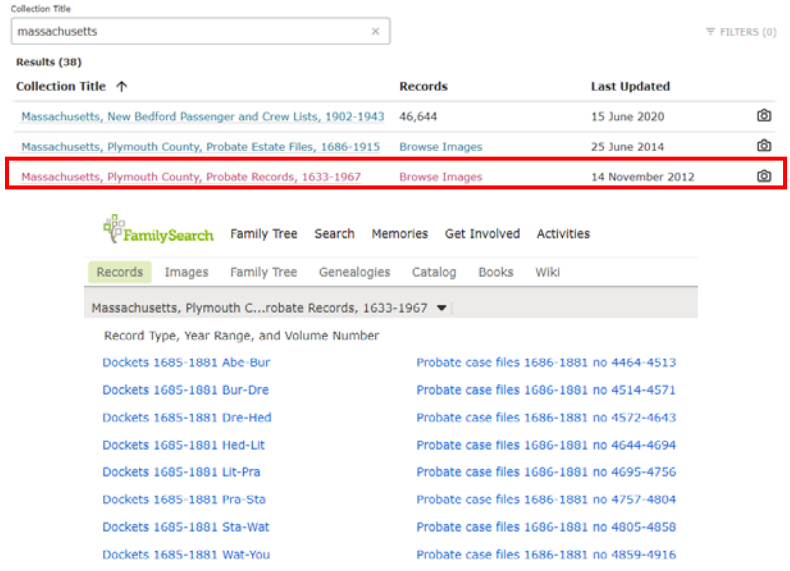


When Rec'd.	GRANTEES.	GRANTORS.	Book.	Page.
	Adams	over.		
	Ebenezer & Statira Bradford	Division	78	190
	Elisha	from Asa Whitmarsh et al.	91	218
	Francis	George Barrows	7	13
	"	Thomas Lothrop	7	311
	" "	Agreement	8	89
	Francis "	Eleazer Dunham	9	395
	" "	Agreement	9	106
	Francis & Richard Cooper	Division	9	136

49

Family Search



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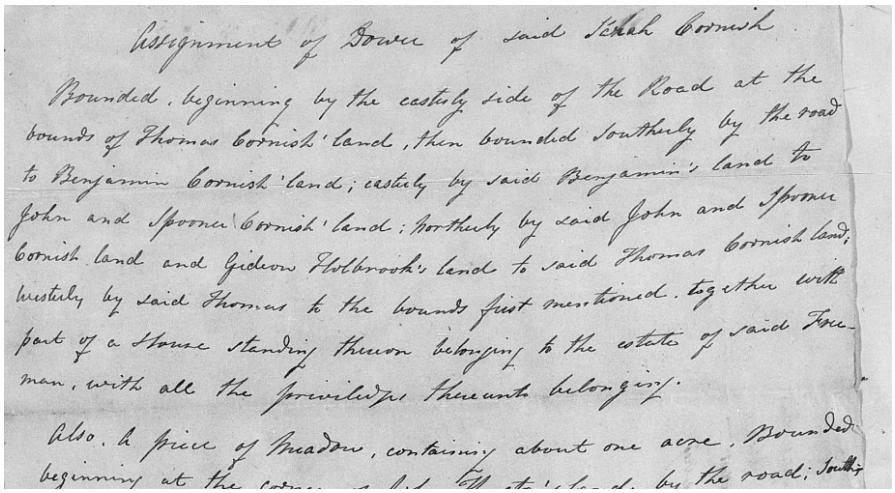
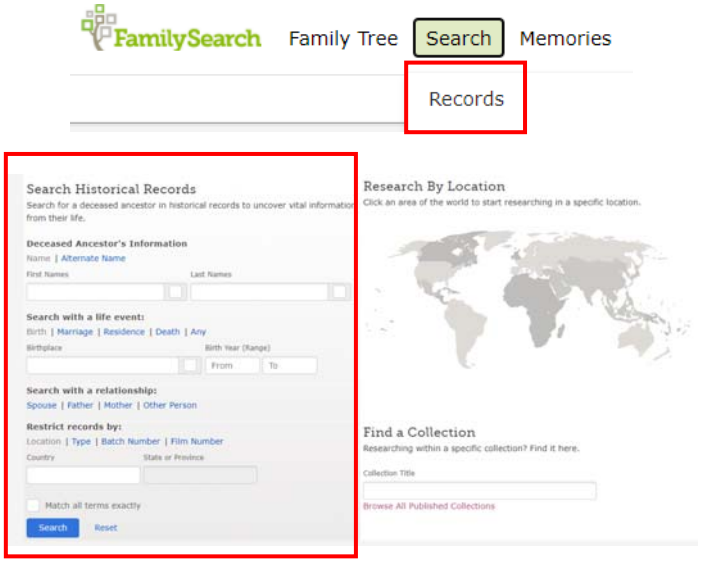
Family Search



Assignment of Dower of said Sarah Cornish
Bounded, beginning by the easterly side of the Road at the
bounds of Thomas Cornish' land, then bounded Southerly by the road
to Benjamin Cornish' land; easterly by said Benjamin's land to
John and Spooner Cornish' land; Northerly by said John and Spooner
Cornish land and Gideon Holbrook's lands to said Thomas Cornish land;
westerly by said Thomas to the bounds first mentioned. together with
part of a House standing thereon belonging to the estate of said Spoo-
mar, with all the privileges thereunto belonging.
Also, a piece of Meadow, containing about one acre. Bounded
beginning at the

51

Family Search: Case Study 1



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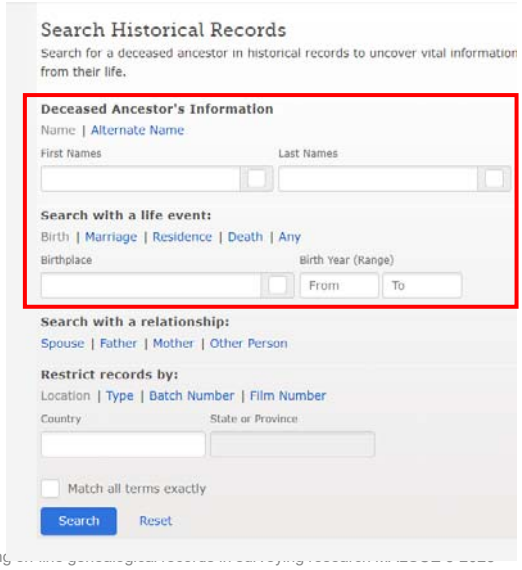
Family Search: Case Study 1



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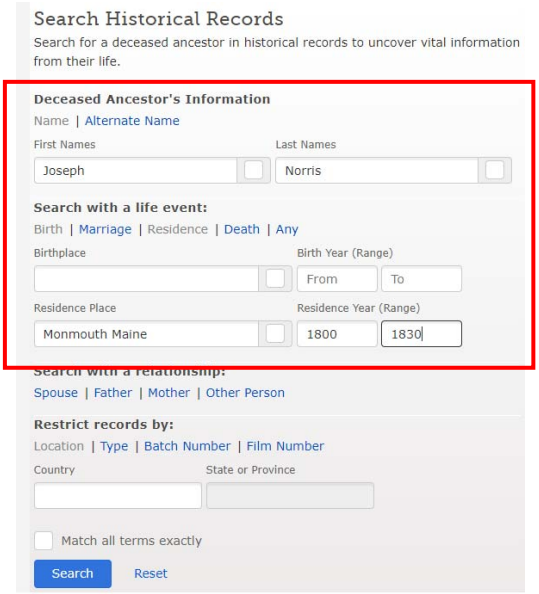
Family Search: Case Study 1



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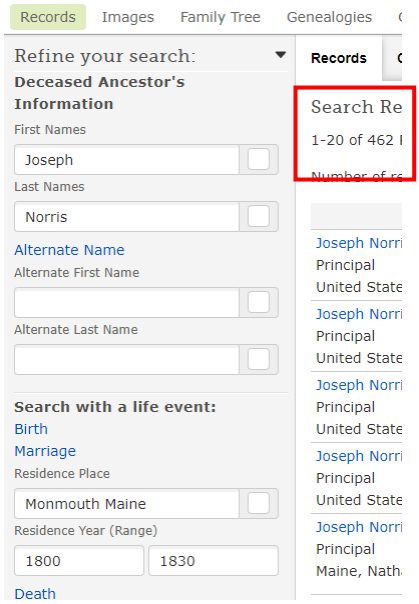
Family Search: Case Study 1



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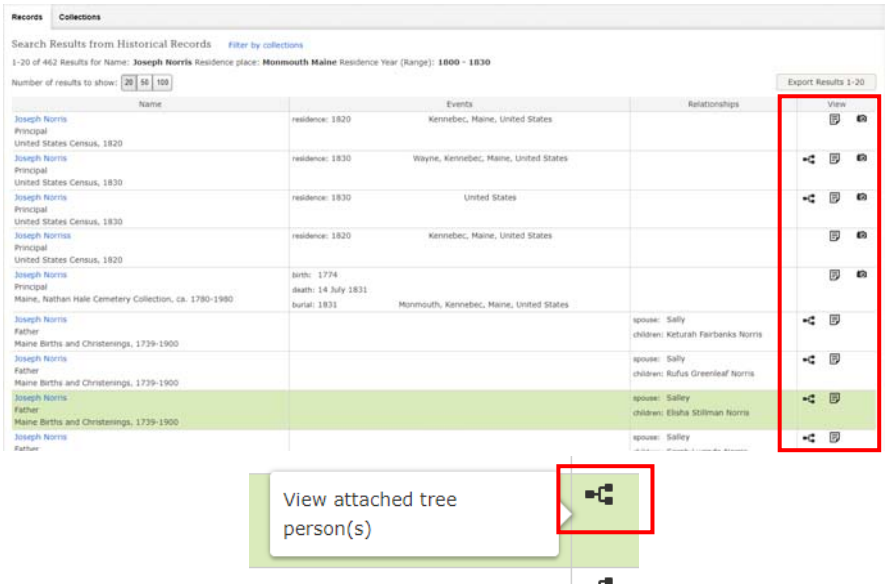
Family Search: Case Study 1



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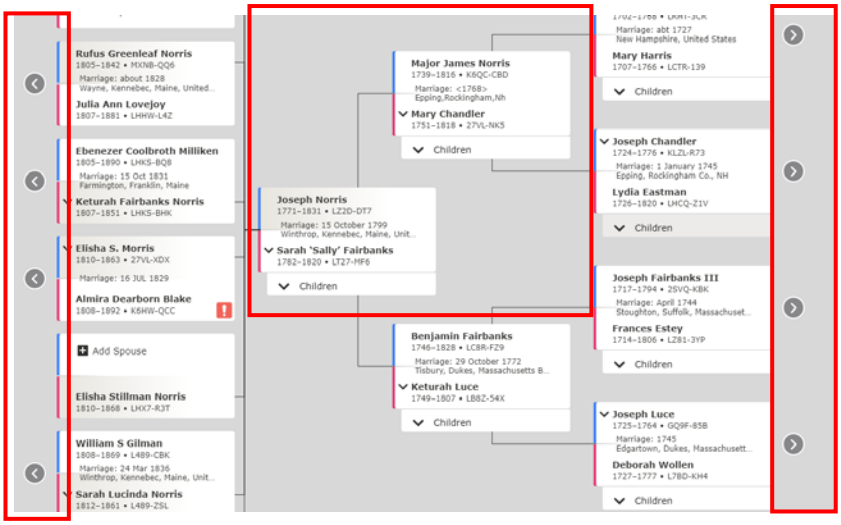
Family Search: Case Study 1



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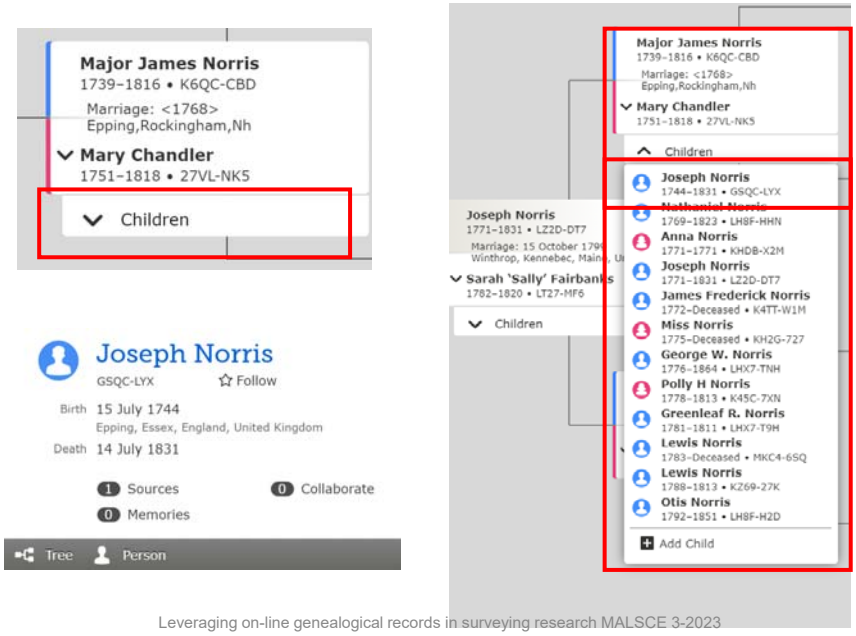
Family Search: Case Study 1



58

Genealogy Books

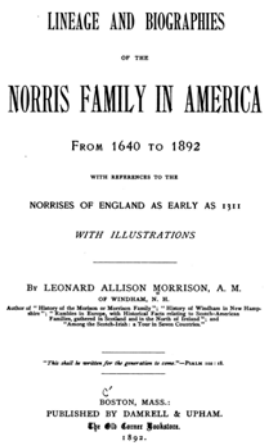
https://archive.org/details/lineageandbiogr00morrgoog

Lineage and biographies of the Norris family in America from 1640-1892 : with references to the Norrises of England as early as 1311

by Morrison, Leonard Allison, 1843-1902. cn

Publication date	1892
Topics	Norris family, Norris family (Nicholas Norris, b. 1640?), genealogy
Publisher	Boston, Mass. : Damrell & Upham
Collection	allen_county; americana
Digitizing sponsor	Allen County Public Library Genealogy Center
Contributor	Allen County Public Library Genealogy Center
Language	English

16



LINEAGE AND BIOGRAPHIES

OF THE

NORRIS FAMILY IN AMERICA

FROM 1640 TO 1892

WITH REFERENCES TO THE

NORRISES OF ENGLAND AS EARLY AS 1311

WITH ILLUSTRATIONS

BY LEONARD ALLISON MORRISON, A. M.

OF WINDHAM, N. H.

BOSTON, MASS.:

PUBLISHED BY DAMRELL & UPHAM.

1892.

59

Genealogy Books

https://archive.org/details/lineageandbiogr00morrgoog

168. Maj. James Norris[4] (62) [James[3], Moses[2], Nicholas[1]]. He was a resident of Epping, N. H.; born there April 9, 1739. By his father's will, proven Dec. 28, 1768, he received one-half of the homestead and of the buildings. He repeatedly went from his town as a soldier in the war of the Revolution, and rendered valiant and efficient service; was early a commissioned officer, and in 1775 was a captain of the 9th company, 2d N. H. regiment, commanded by Col. Enoch Poor. He entered the service May 25; mustered in June 17, 1775, the day of the battle of Bunker Hill. On the succeeding day, at 11 o'clock A. M., he was directed to march his men to Cambridge, Mass., and join the army without the loss of time. He served two months and eleven days.

60

Genealogy Books

https://archive.org/details/lineageandbiogr00morrgoog

On Nov. 8, 1776, he was commissioned a captain in the 2d battalion, 2d N. H. regiment, in the Continental service, for three years. This was commanded by Col. Enoch Poor. He participated in the sharply contested action at Castleton, and was reported slain, and perhaps was taken prisoner July 7, 1777, at Hubbardston, Vt. On the 20th of Sept., 1777, he was promoted to be a major in the 3d regiment of N. H., commanded by Col. Alexander Scammel, and shared in the memorable campaign of Gen. John Sullivan against the Indians in Western New York in 1779. During this period he kept a journal, and the original manuscript is now in the possession of the Historical Society, Buffalo, N. Y. It has been published entire in connection with the history of General Sullivan's Indian expedition, 1779, published in 1887 by the State of New York. In the battle at Newtown (now Elmira), N. Y., he participated, and after the conclusion of this hazardous and successful campaign he returned to the abode of civilization in safety. He continued in the service until about July 5, 1780, when he left the service, probably by the expiration of his term. He returned to Epping, N. H., and for several years performed his duties as a citizen.

After the Revolution, and late in life, he joined the tide of emigration to the eastward and located in Monmouth, Kennebec co., Maine.

He married, in Epping, Mary, daughter of Capt. Joseph and Lydia (Eastman) Chandler, of that town. Her father lived on Oak Hill, one mile from Epping Centre, and near the home of the late Governor Plumer. She was born April 26, 1751, and died June 4, 1818, in her 68th year. He died Nov. 15, 1816, in Monmouth, Me.

61

Genealogy Books

https://archive.org/details/lineageandbiogr00morrgoog

CHILDREN.

169. Nathaniel Norris[5] (440), b. Epping, N. H., July 22, 1769; d. 1823, in Wayne, Me. He m. Miss Allen.
170. Anna Norris[5], b. Epping, N. H., June 19, 1771; d. July 2, 1771.
171. James Frederick Norris[5] (441), b. July 25, 1772, in Epping, N. H.; m. Polly, dau. of Maj. Benjamin White, of Winthrop, Me.
172. Joseph Norris[5] (450), b. July 15, 1774; m. Sally Fairbanks; m. 2d, Sarah Cram, and d. July 14, 1831.
173. George W. Norris[5], b. Nov. 23, 1776; lived in Chandlerville, Somerset co , Me. (afterwards Detroit), where he d.; farmer. He m. his cousin, Sally C. Maloon, and widow of Daniel Runlet Chandler. She was b. Aug. 11, 1778. Children: Sullivan Norris[6], res. in the west. Wesley Norris[6], farmer; res. Burnham, Me. Henry Norris[6].
174. Polly H. Norris[5] (461), b. Dec. 26, 1778, in Epping, N. H.; d. Jan. 2, 1813. She m. Jireh Swift.
175. Greenleaf Rufus Norris[5], b. Oct. 12, 1784; d. Sept. 29, 1811. He was a Methodist clergyman, and never married.
176. Lewis Norris[5], b. Aug. 8, 1788. He was a lieutenant in the war of 1812-15. He d. June 29, 1813, in the Army Hospital, in New York, of fever contracted in the service.
177. Otis Norris[5], b. June 1, 1792; m. Mary Smith, of Monmouth, Me.; d. in Greenbush, Rensalaer co., N. Y. Children: 1, Wyatt S. Norris[6], res. Lansingburg, N. Y. 2, Charles Granville Norris[6], res. Lansingburg, N. Y. 3, Mary Ann Norris[6], res. Lansingburg, N. Y.

62

Genealogy Books

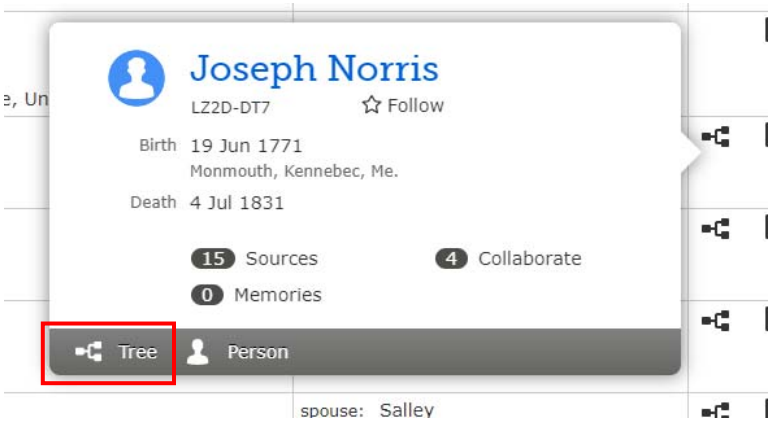
https://archive.org/details/lineageandbiogr00morrgoog

450. Joseph Norris[5] (172) [Maj. James[4], James[3], Moses[2], Nicholas[1]]. He was born in Epping, N. H., July 15, 1774; went to Monmouth, Me.; was surveyor general of wild lands in that state, and made maps and charts of the wild country. He was of commanding presence, intellectual, and witty, and was a noted man. He married Sally Fairbanks. He married, 2d, Sally Cram. He died July 14, 1831.

CHILDREN.

63

Family Search: Case Study 1



64

Why Joseph Norris?

Client asked me to research the ownership of their parcel (simple enough?)

Interesting project but worst client you could imagine!

The Client:

65

Why Joseph Norris?

DEED

NO TRANSFER
TAX PAID

I, CORNELIA S. VANNOZZI, of 645 Ocean Avenue, Beachwood, New Jersey 08722, being unmarried, in consideration of ONE DOLLAR ($1.00), grant to ANTHONY RICHARD VANNOZZI, of 881 State Road, Plymouth, Massachusetts 02360, with quitclaim covenants:

All that certain lot, tract or parcel of land and premises situate, lying and being in the corporate limits of West Gardiner in the County of Kennebec and State of Maine, more particularly described as follows:

Being one certain Island known as Independence Island, situated in Cobbosseecontee Lake.

66

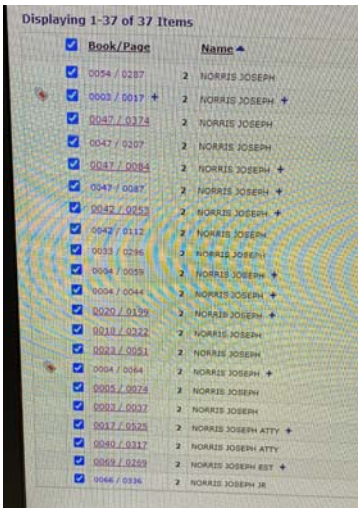
Traditional Research

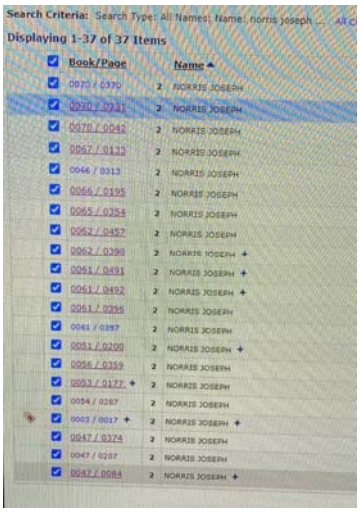
A.R. Vannozzi & Associates - Boundary Chain Details

Lot Number:	N/A			Project:	Cobbossee	Control #
Current Owner:	ARV			Town:	W GARDINER, ME	
Parcel Common Name:	Richard's Island					
Reference Info:				Date:		
Deed	Grantor	Grantee	Dated	Rec'd	Comments	
9781/017	CS Vannozzi	ARVannozzi	9/16/1994	10/7/1994	I.I	
1723/24	EH Valentine	CSV	9/11/1974	5/6/1974	I.I.	
852/568	SR HARVEY	EHV	6/22/1944	6/30/1949	I.I.	
759/87	EC KLEFER	SR HARVEY	2/21/1938	8/21/1939	TINT 3 I.I	
653/530	AB WALSH	HC HARVEY	12/21/1928	1/9/1929	INCL ROW 225/532	
628/333	W. DIPLOCK	AB WALSH	9/16/1925	9/17/1925	I I	
628/332	HA EDSON	W DIPLOCK	8/10/1925	9/17/1925	I I	
532/453	HOMER (WID)	HA EDSON	9/29/1913	10/01/1913	½ INT II	
473/97	GEORGE MARRIOTT	H WIDO HA EDSON	7/7/1906	7/10/1906		
225/532	S HAHN	GEORGE MARRIOTT	8/9/1855			
102/347	HANNAH + SAMUEL	S HAHN	2/19/1837		NOT LOCUS LITCHFIELD 2 ES 7 ISLANDS	
97/459	S. SCHWARTZ	J. HAN	6/23/1836	6/23/1836		
80/449	EDW CHANDLER	S SCHWARTZ	3/11/1833	3/12/1833		
80/448	EDWARD S WHITE, MINOR JOSEPH NORRIS	EDWD CHANDLER	6/23/1832	3/12/1833		

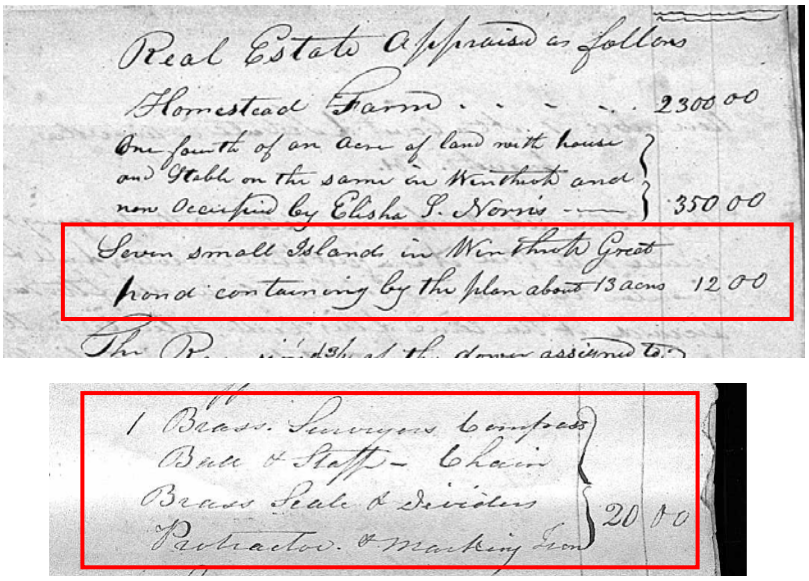
Traditional Grantee

Grantee search unsuccessful





Family Search Probate Files



Real Estate Appraised as follows

Homestead Farm 2300 00

One fourth of an acre of land with house and Stable on the same in Winthrop and now occupied by Elisha S. Norris — } 350 00

Seven small Islands in Winthrop Great Pond containing by the plan about 13 acres 1200

1 Brass Surveyors Compass
Ball & Staff — Chain
Brass Scale & dividers
Protractor & marking Iron } 20 00

69

Family Search Probate Files

70

Family Search Probate Files

71

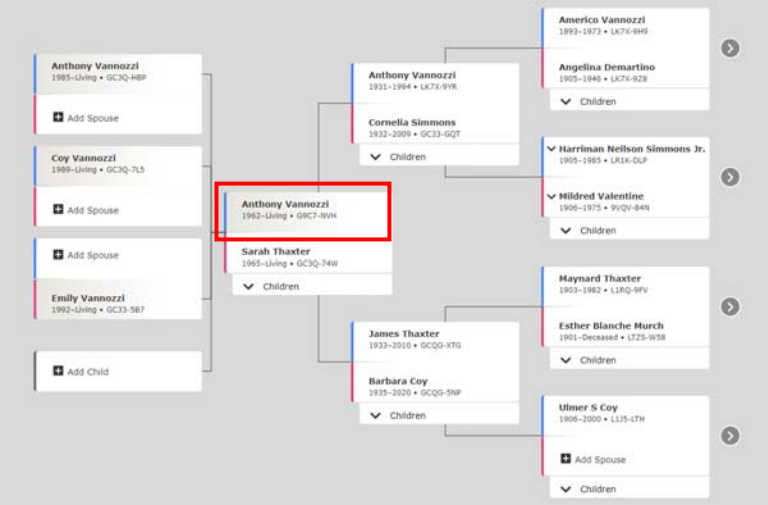
Family Search: Case Study 2

Same Client:

72

Family Search: Case Study 2

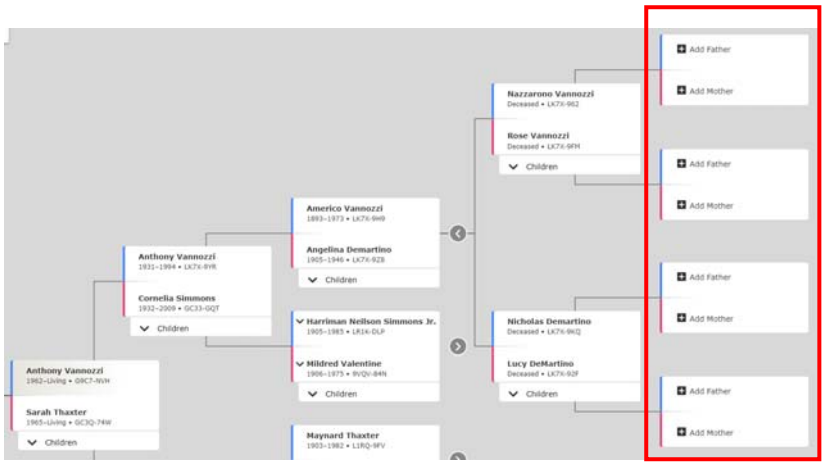
"*Shaking the Family Tree*"



73

Family Search: Case Study 2

"*Vannozzi*"



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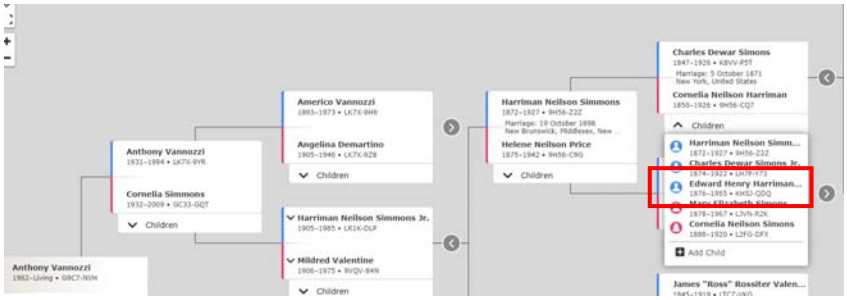
Family Search: Case Study 2

"*Simmons*"



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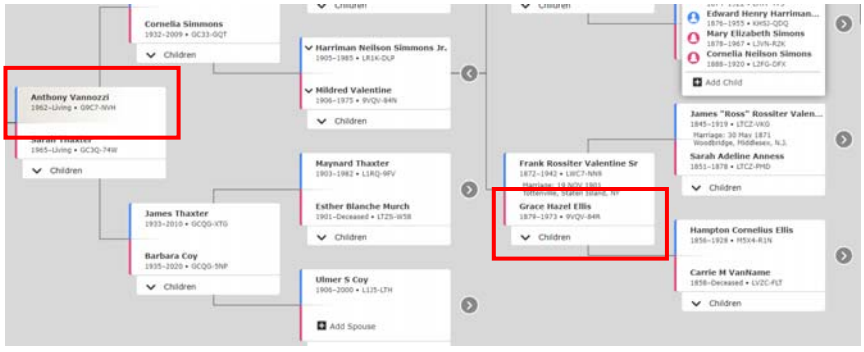
Family Search: Case Study 2

"*Valentine*"



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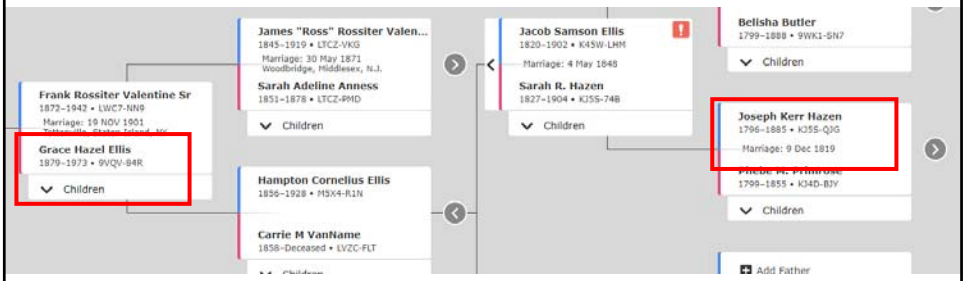
Family Search: Case Study 2

"*Ellis/Hazen*"



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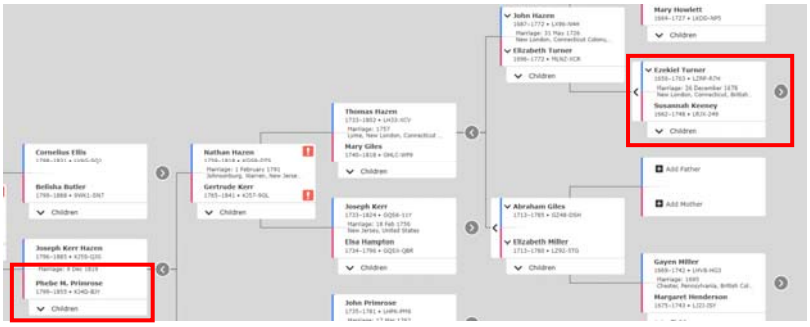
Family Search: Case Study 2

"*Hazen/Turner*"



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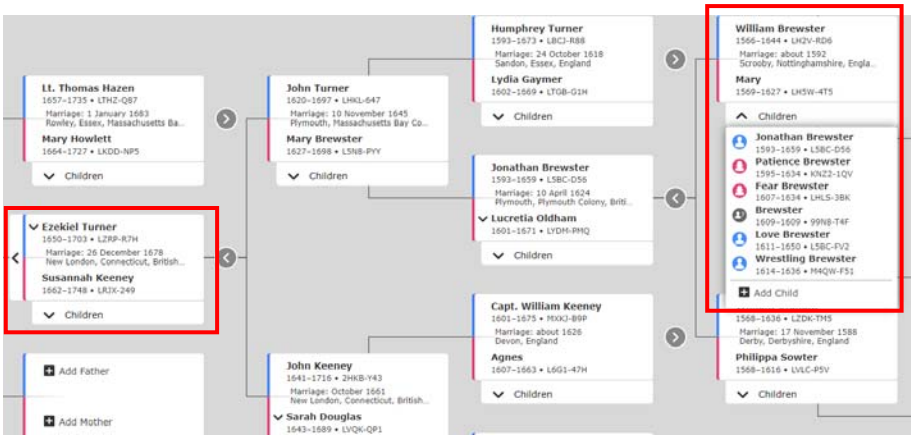
Family Search: Case Study 2

"*Turner/Brewster*"



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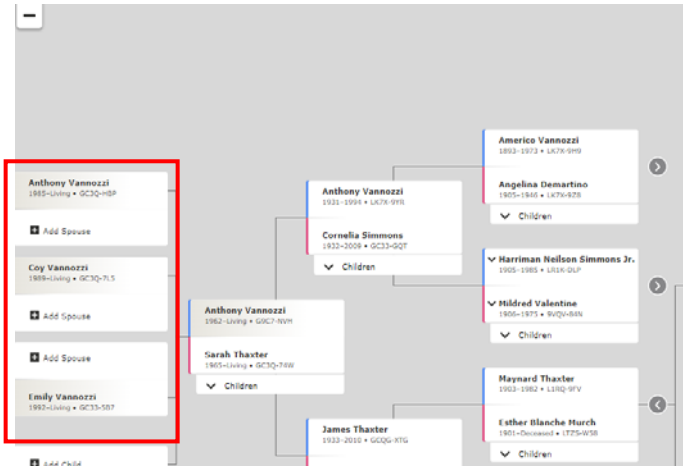
Family Search: Case Study 2

"*Thaxter*"



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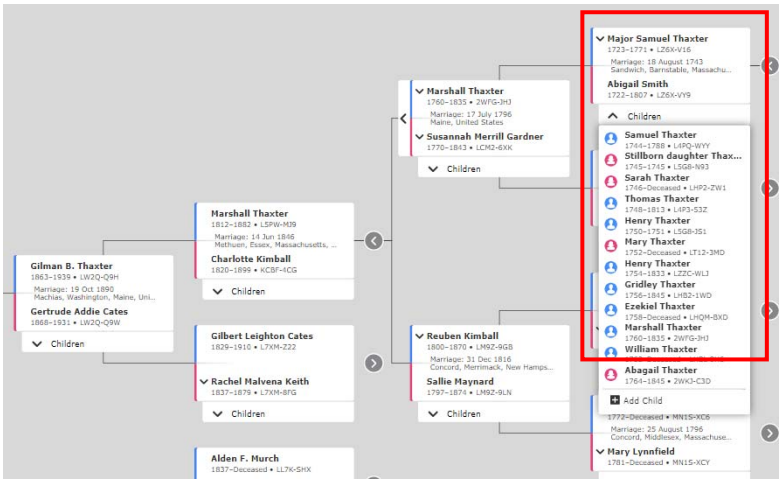
Family Search: Case Study 2

"*Thaxter*"



81

Family Search: Case Study 2

"*Thaxter*"

82

Implications on the "Normal Standard of Care"?

The Standard of Care is a legal concept in the law of negligence. It is defined by Black's Law Dictionary as: "that degree of care which a reasonably prudent person should exercise in same or similar circumstances."

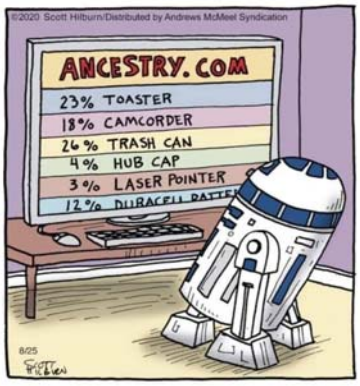
With these records being readily accessible on-line and free, wouldn't it be a lot harder to argue that they were not searched?

https://www.pri.com/the-standard-of-care#:~:text=The%20Standard%20of%20Care%20is,same%20or%20similar%20circumstances.%E2%80%9D.

83

Leveraging on-line genealogical records in surveying research

MALSCE, Inc. Annual Conference



Presented by

A. Richard Vannozzi, MS, PLS
Assistant Professor,
Surveying Engineering Technology Program
University of Maine

anthony.vannozzi@maine.edu

March 3, 2023

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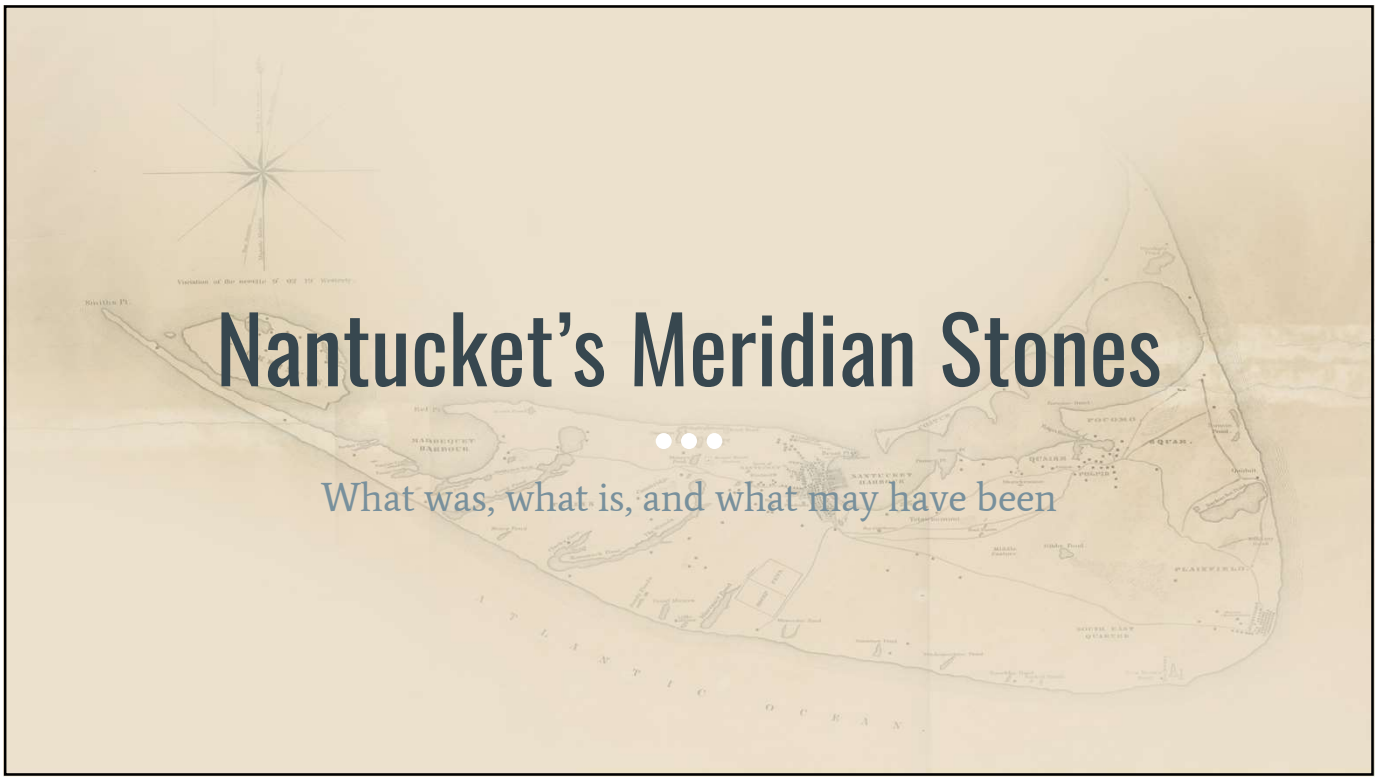

Nantucket's Meridian Stones
What was, what is, and what may have been

1

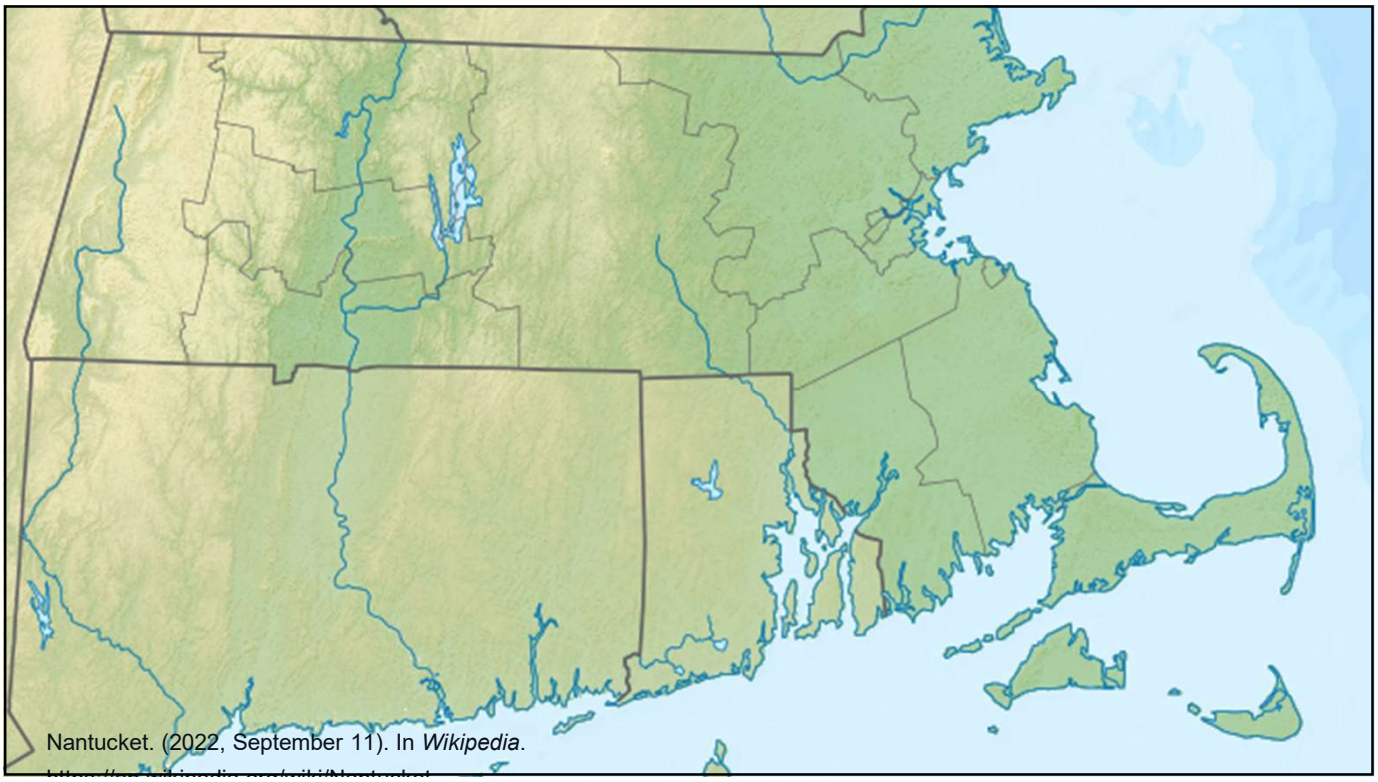

THANK YOU

2

A Treasure Hunter
A Scientist
An Artist
A Historian

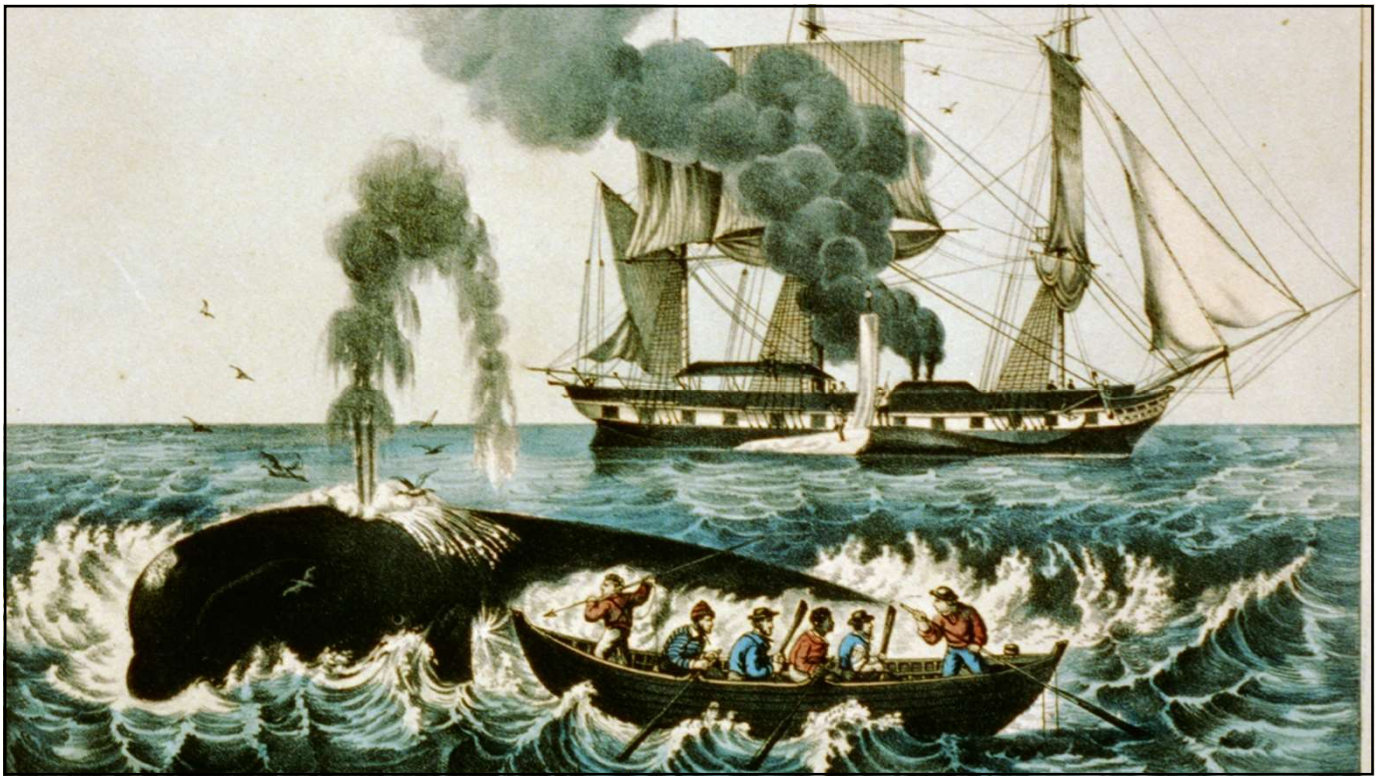
3

4



Nantucket. (2022, September 11). In *Wikipedia*.

5



6

Nantucket. (2022, September 11). In *Wikipedia*. https://en.wikipedia.org/wiki/Nantucket

7

Nantucket's Meridian Stones

- What are the stones
- What are the stones thought to be
- What does my research suggest

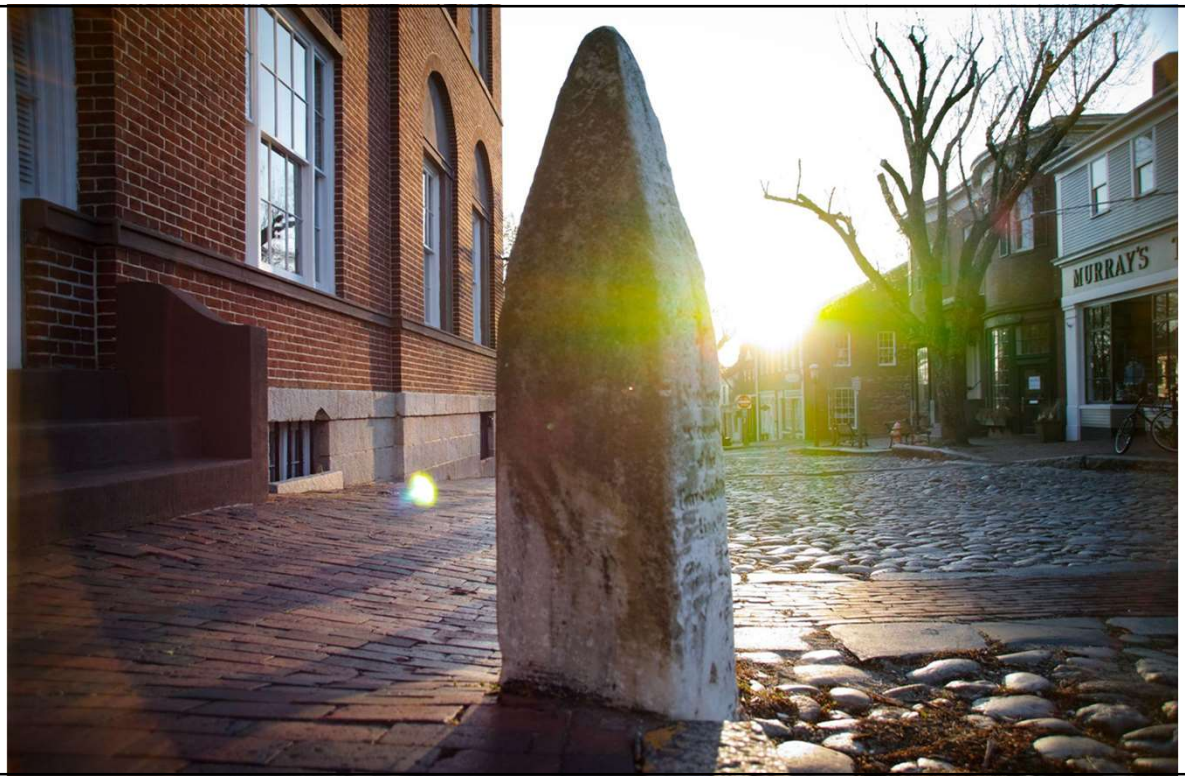
8

The Meridian Stones are two white marble stones places in an astronomic north to south alignment in the Town of Nantucket

1840 Northern extremity of the Towns meridian line

Southern extremity of the Towns meridian Line

9



10

11

William Mitchell (1791-1868)

William Mitchell was awesome and is known for many things including,

-He rated chronometers for whaling captains

-He was an astronomer

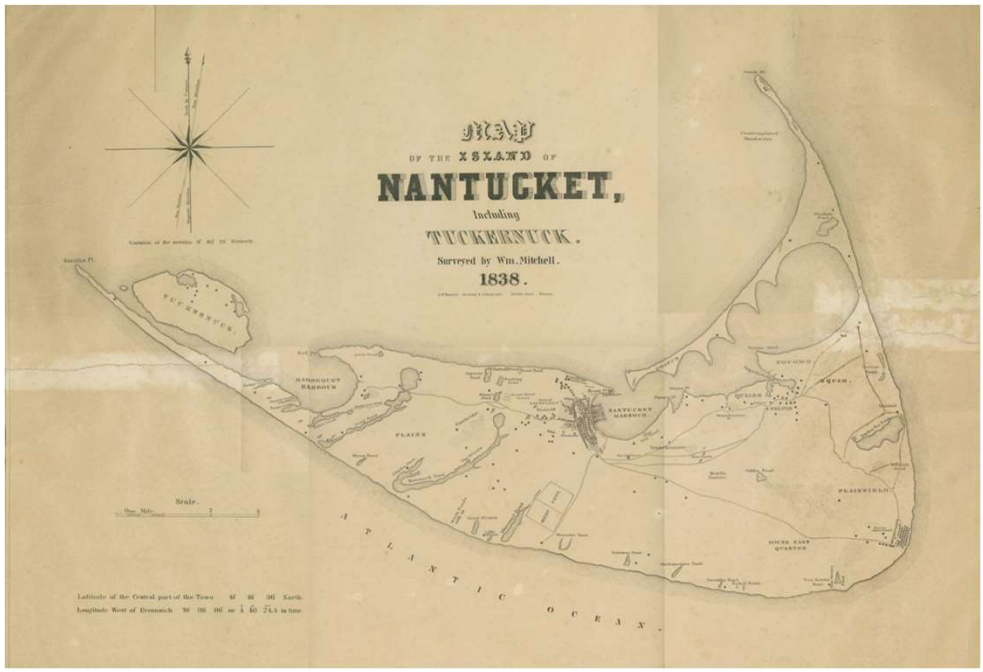
-A land surveyor

-A teacher

-Father of Maria Mitchell

12

A land surveyor



13

My Research

14

15

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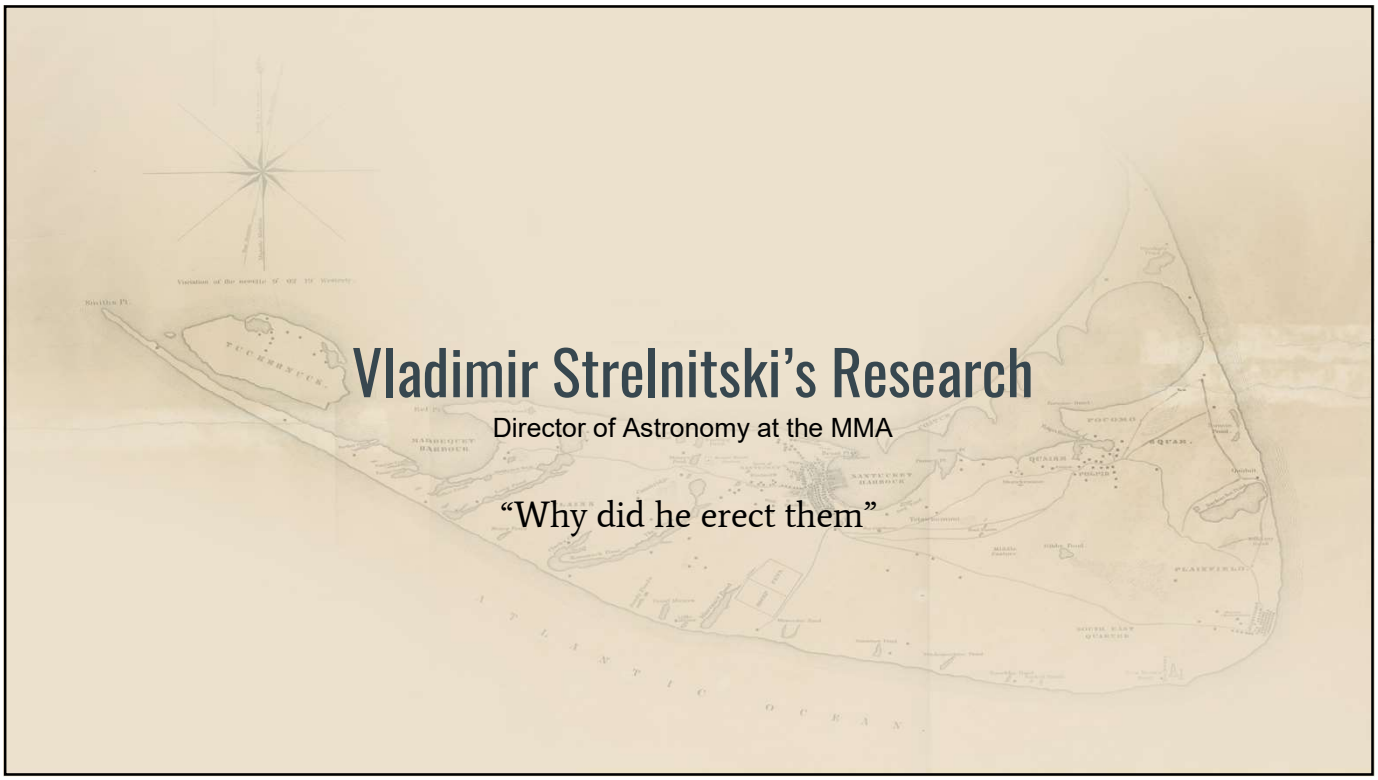
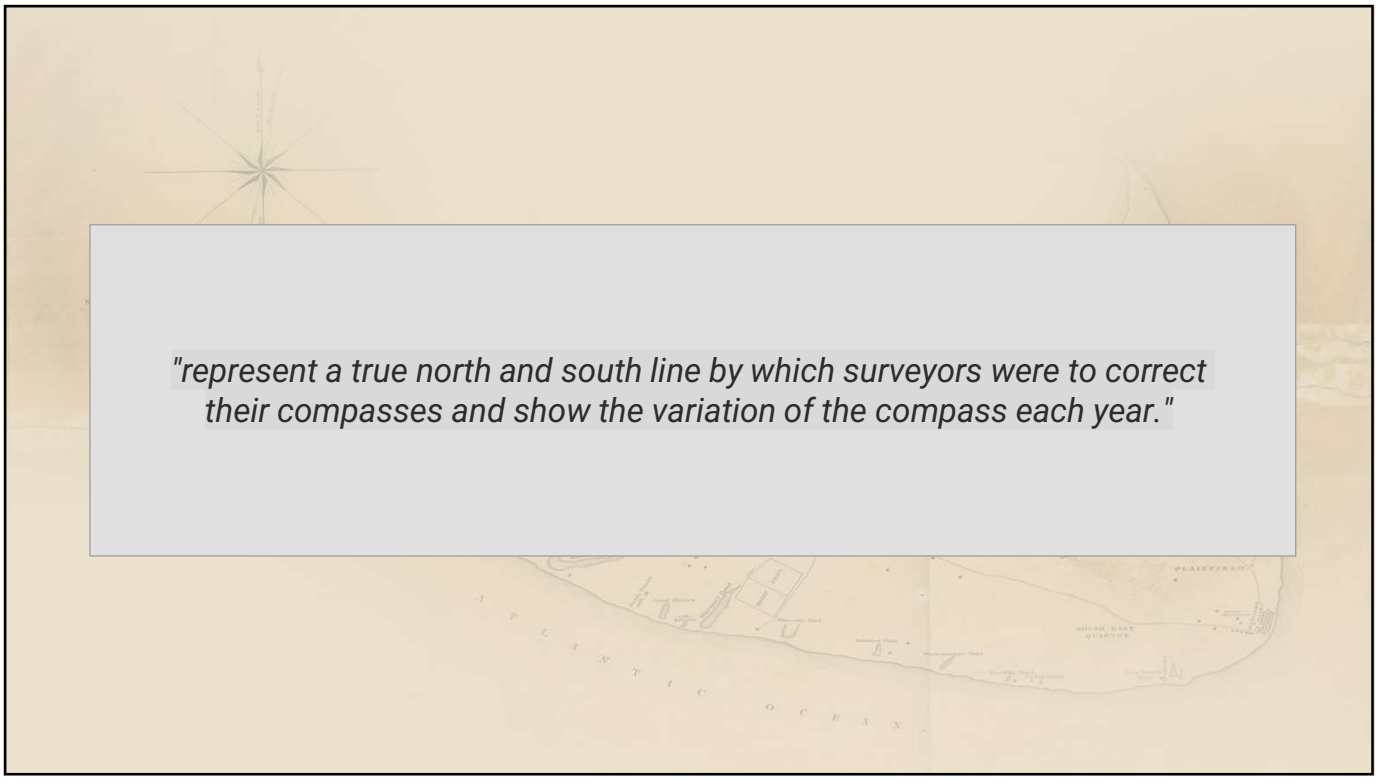
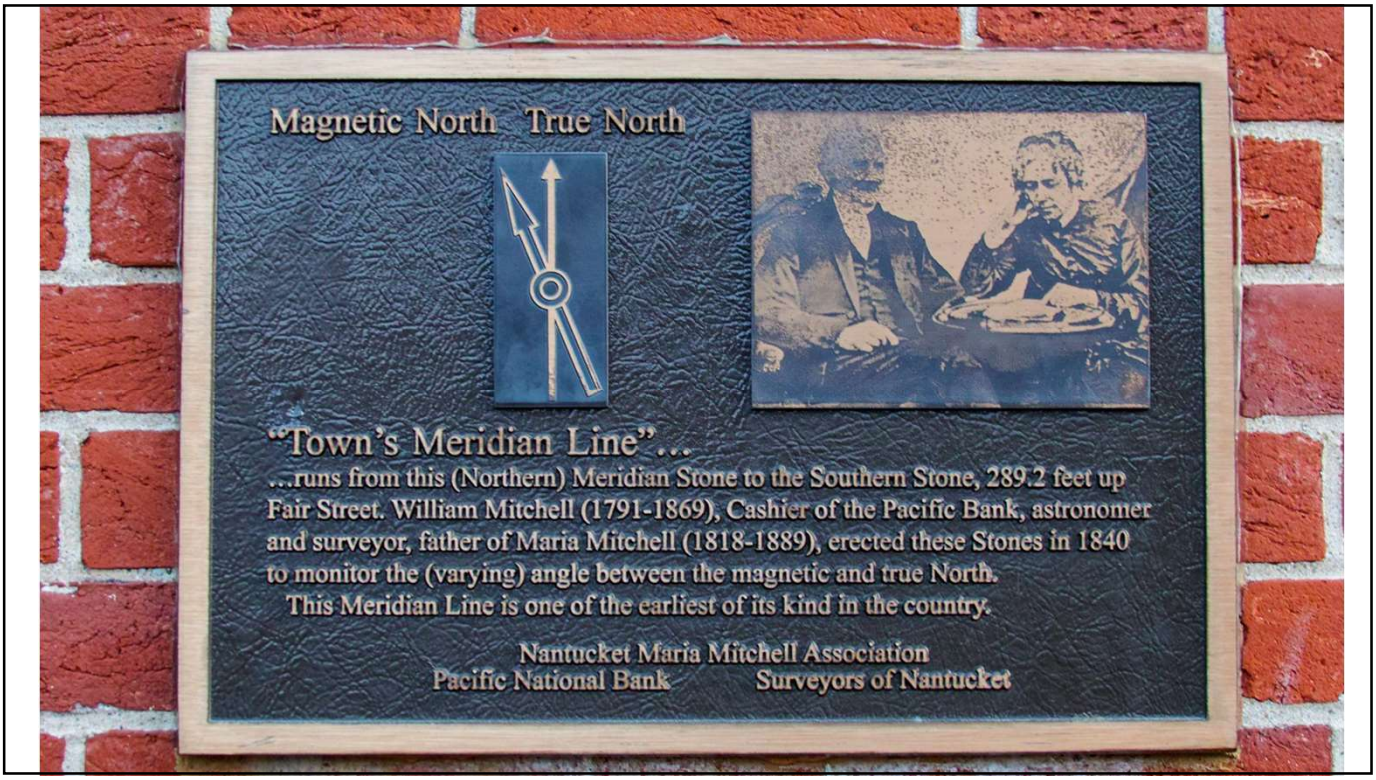

Vladimir Strelnitski's Research
Director of Astronomy at the MMA
"Why did he erect them"

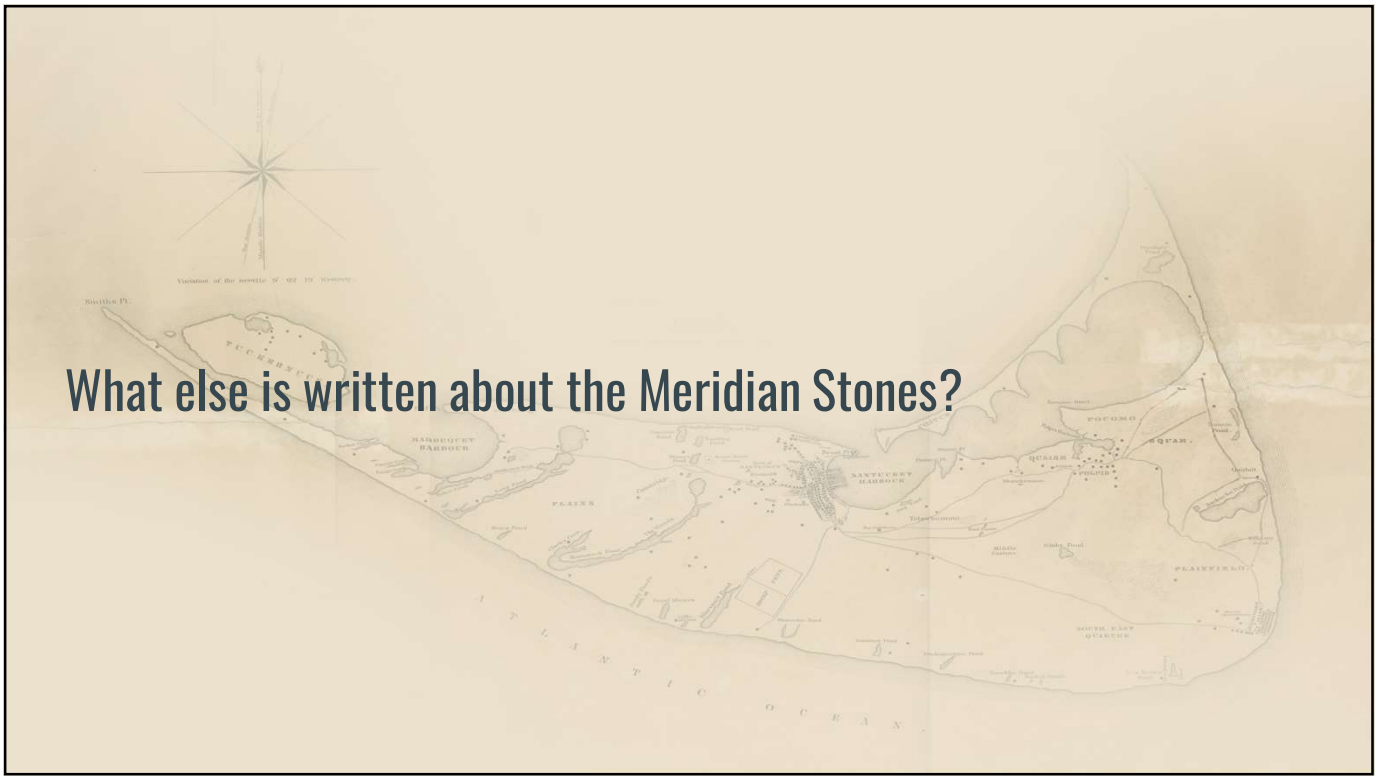
17


"represent a true north and south line by which surveyors were to correct their compasses and show the variation of the compass each year."

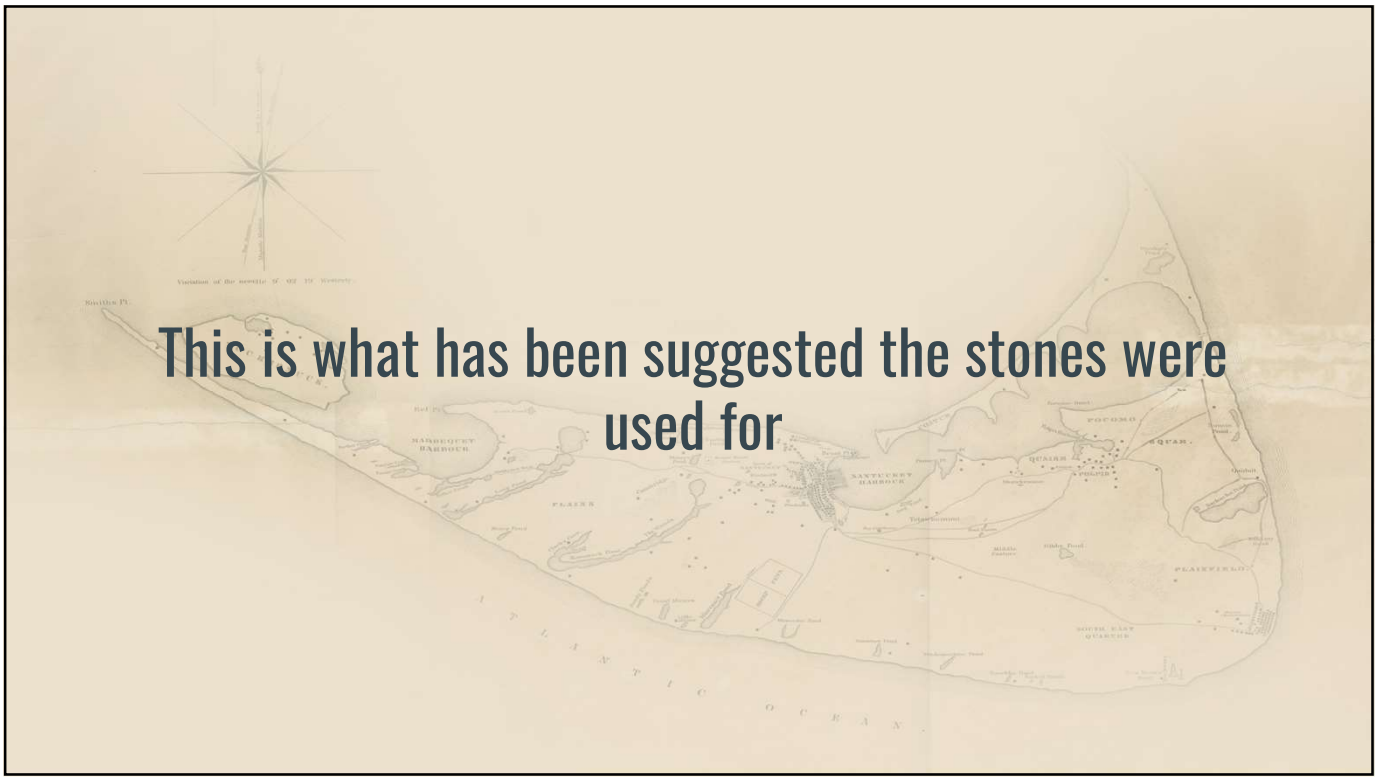
18


Magnetic North True North
"Town's Meridian Line"…
…runs from this (Northern) Meridian Stone to the Southern Stone, 289.2 feet up Fair Street. William Mitchell (1791-1869), Cashier of the Pacific Bank, astronomer and surveyor, father of Maria Mitchell (1818-1889), erected these Stones in 1840 to monitor the (varying) angle between the magnetic and true North.
This Meridian Line is one of the earliest of its kind in the country.
Nantucket Maria Mitchell Association
Pacific National Bank
Surveyors of Nantucket

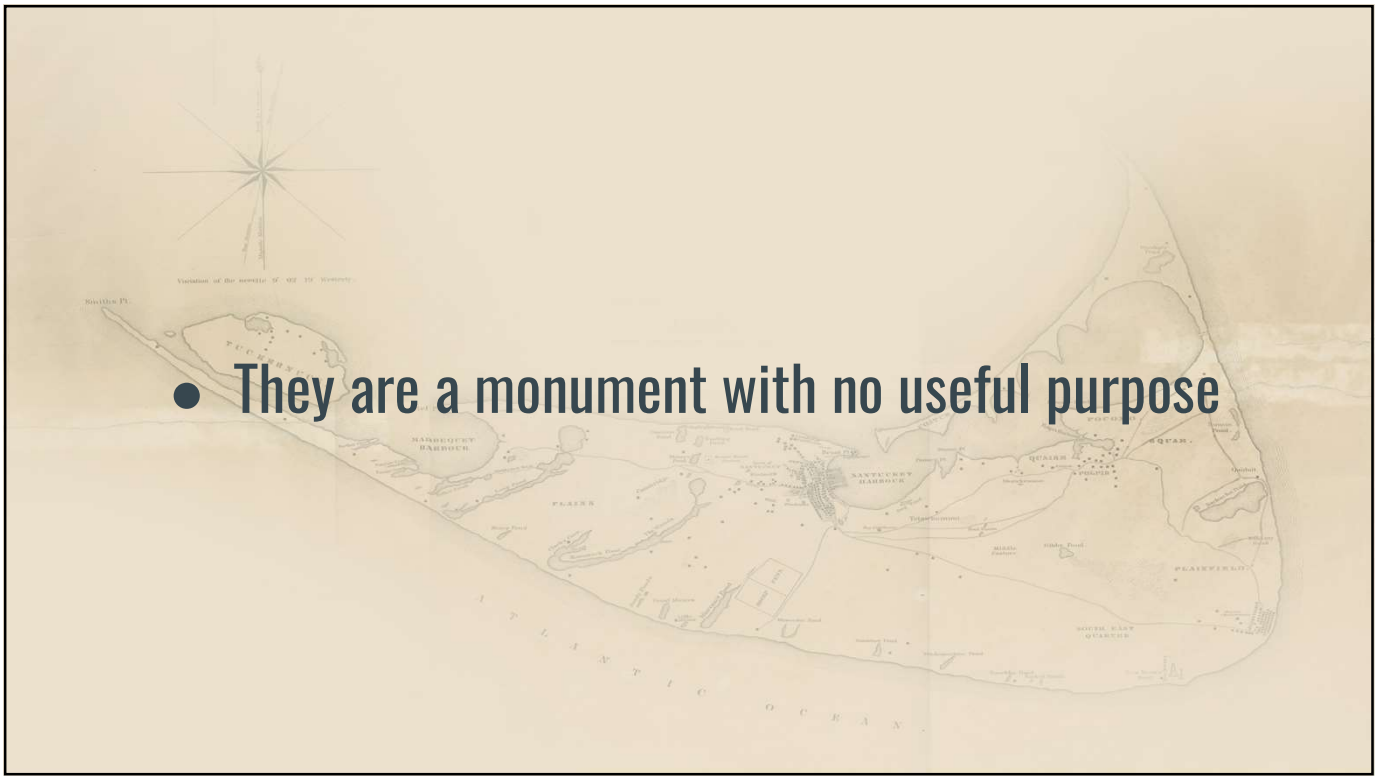
19


What else is written about the Meridian Stones?

20


This is what has been suggested the stones were used for

21


They are a monument with no useful purpose

22

- William Mitchell used the stones to rate chronometers

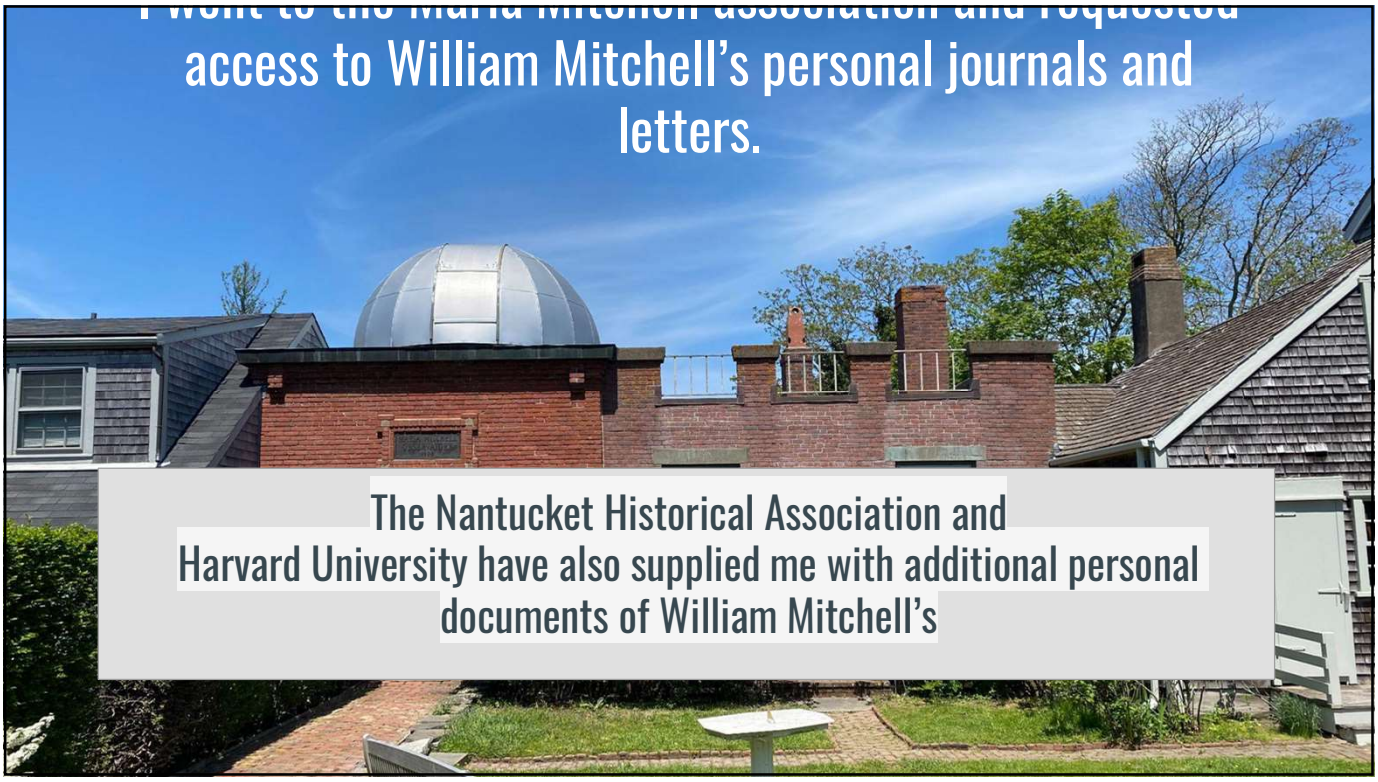
"Everything we know about the procedures for precise determination of time in the middle of the 19th century fails to support the speculation about the use of meridian stones for rating chronometers."

23

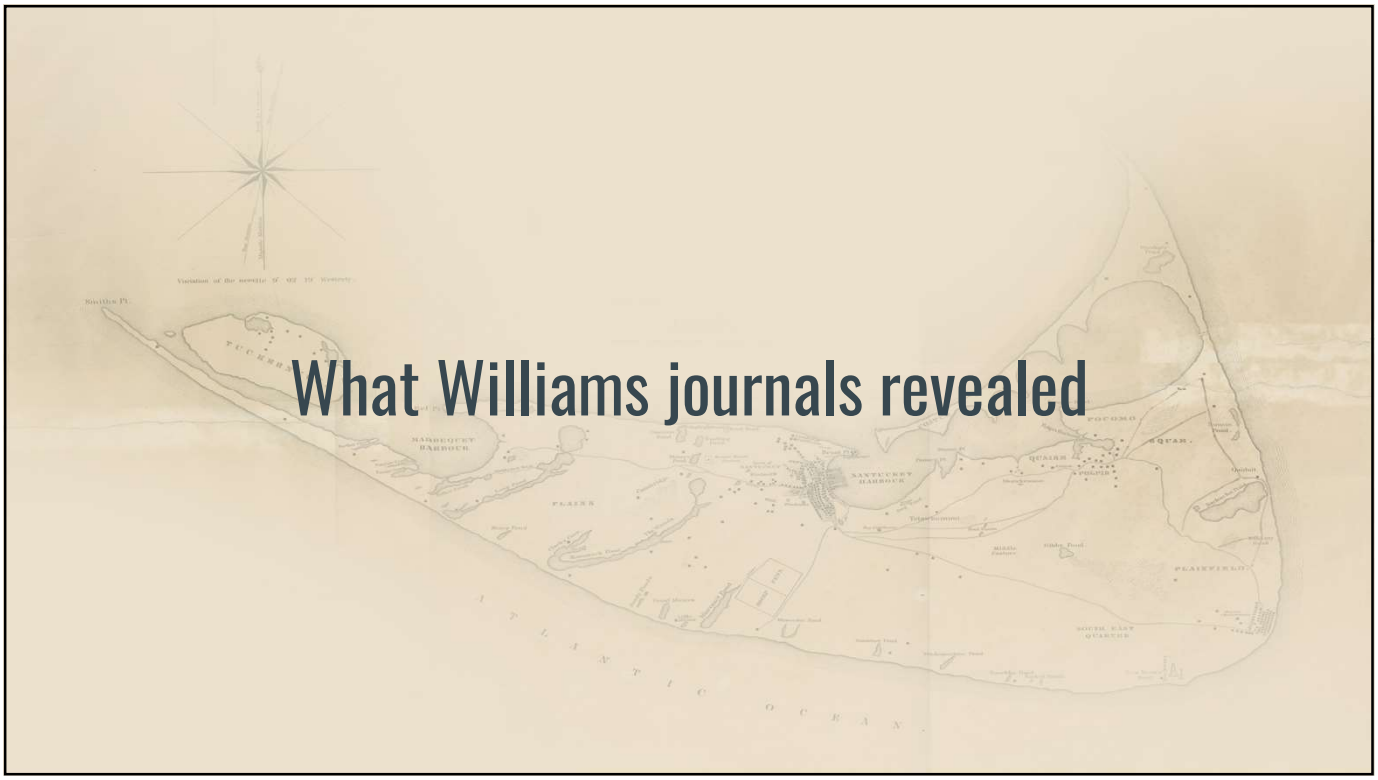
- That sea captains visited the stones in order to determine the accuracy of their compasses

"The notion has no substance because a compass in a place where there are no metallic or magnetic elements will always point to magnetic north."

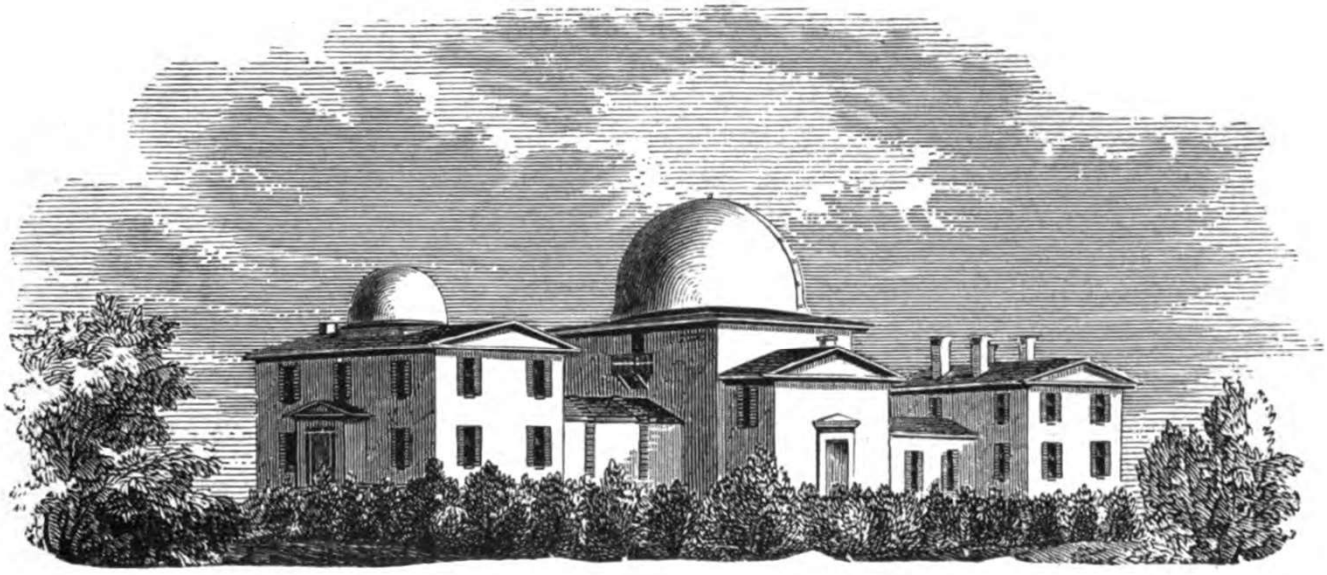
24


access to William Mitchell's personal journals and letters.
The Nantucket Historical Association and Harvard University have also supplied me with additional personal documents of William Mitchell's

25


What Williams journals revealed

26



HARVARD COLLEGE OBSERVATORY—1847.

https://books.google.com/books?id=UJo7AQAAMAAJ&pg=PP9#v=onepage&q&f=false

27

Coast Survey

meridian transits, prime vertical observations, moon culminating stars, occultations

28

29

In the mid-1800s, astronomy was still in its early stages, observatories were of experimental makeshift construction, and time and place were not yet unified global measures.

30

I suggest the Meridian Stones join the terrestrial with the astronomic

They form the meridian line of Mitchell's Nautical observatory

31

In 1840 William Mitchell was Cashier at the Pacific Bank

He lived in the bank with his family

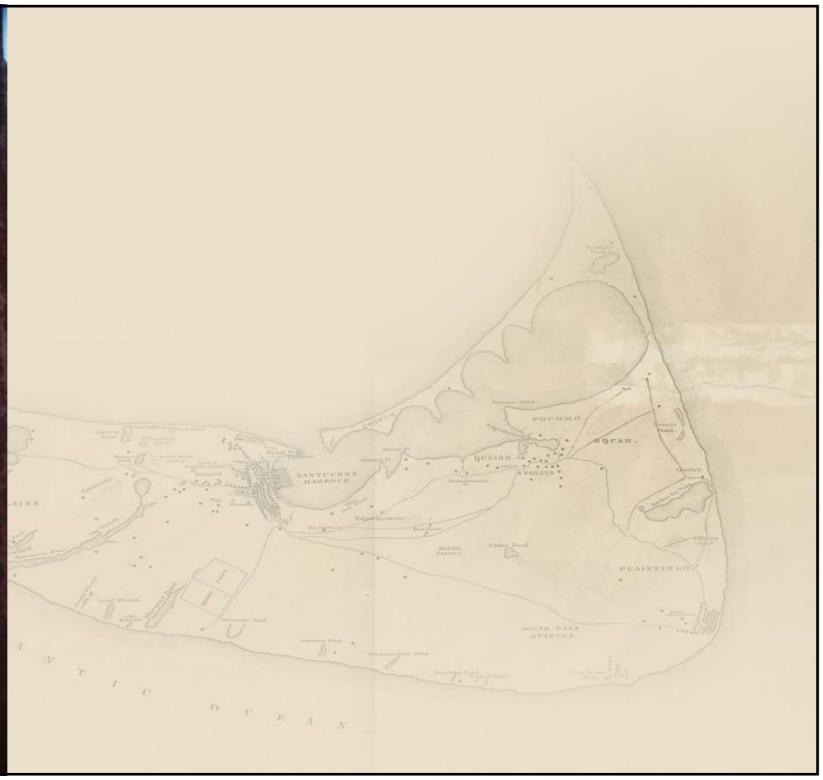
And the banks rooftop was the location of Mitchell's nautical observatory

32


Rooftop Observatory
Northern Meridian Stone
Southern Meridian Stone

33

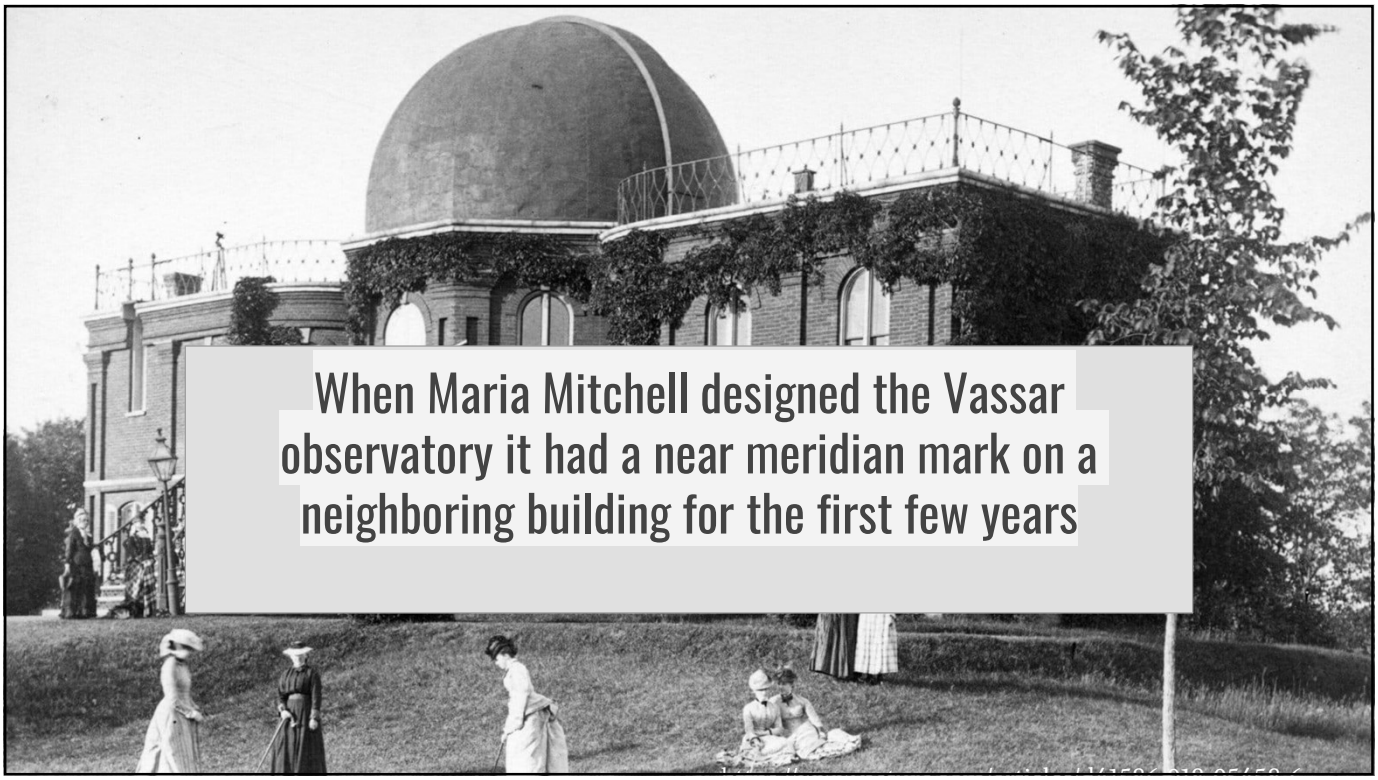

Southern
extremity
of the Town



34

During the mid-1800s large international observatories, including the Greenwich Observatory and the Cambridge Observatory of Harvard University, not only established meridian lines but also erected meridian sight marks on their meridian lines

35



36

The Meridian Stones mark the Town of Nantucket's first primary baseline.

Guided Mitchell in establishing Nantucket Mean Time.

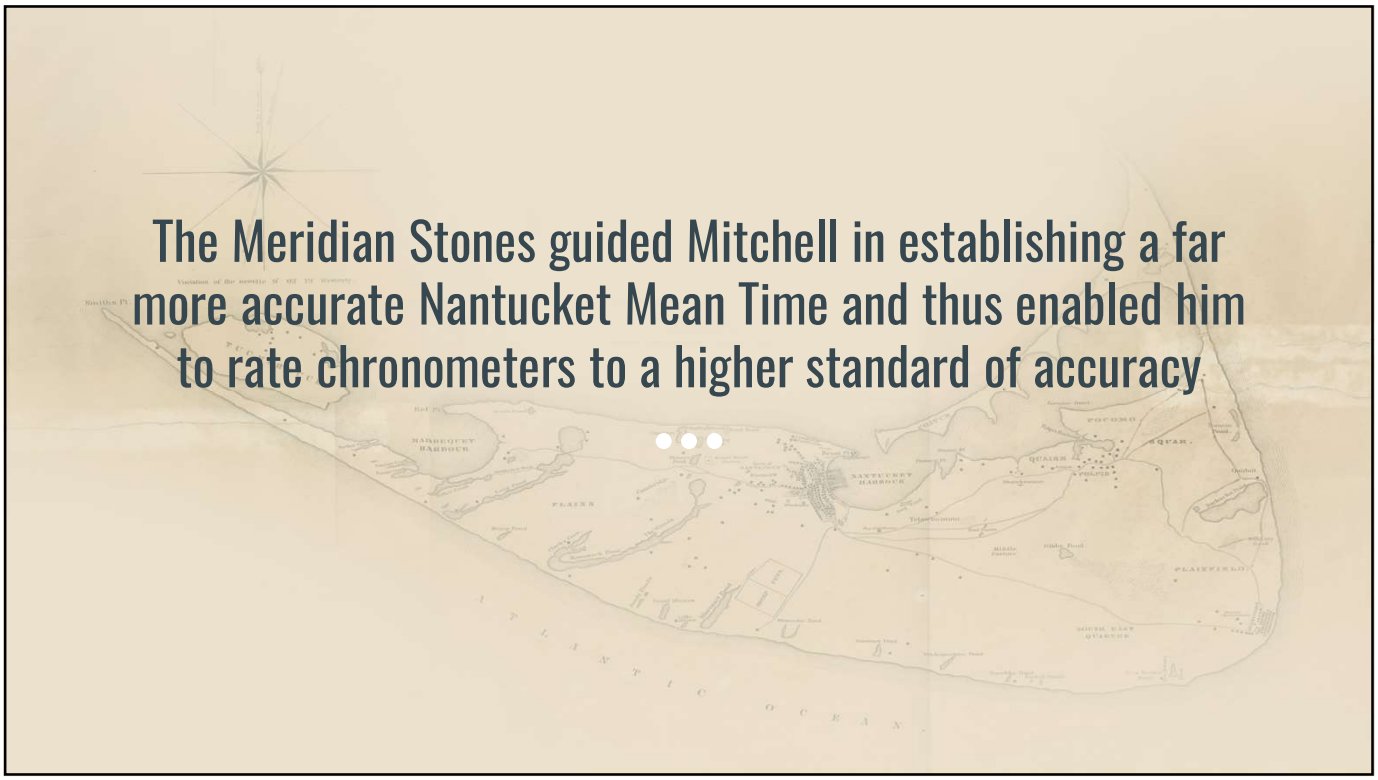
Facilitated the determination of Nantucket Islands' true geographic position.

Mapped the way for safer nautical navigation.

37

The Meridian Stones mark the Town of Nantucket's first primary baseline

38


The Meridian Stones guided Mitchell in establishing a far more accurate Nantucket Mean Time and thus enabled him to rate chronometers to a higher standard of accuracy

39


Nantucket Mean Time

40

let's take another looks at Vladimir's reasoning for the Meridian Stones having no relationship to William Mitchells ability to rate chronometers.

"Everything we know about the procedures for precise determination of time in the middle of the 19th century fails to support the speculation about the use of meridian stones for rating chronometers."

41

Observatory Trials

https://wornandwound.com/history-of-chronometers-pt-2-observatory-trials/

42

Facilitated the determination of Nantucket Islands' true geographic position

43

Extract from a letter addressed by William Mitchell, of Nantucket, to Professor A. D. Bache, Superintendent of the Coast Survey, containing an account of the trade through the Vineyard sound for the last three years, and of the Nantucket south shoal.

"My Dear Friend: I have at length obtained the information I desired relative to the number of vessels which annually pass through the sound. Knowing that thou wouldst prefer a modern account, I applied to the captain of the light boat, with whom it has been somewhat difficult to communicate. To his politeness I am indebted for the following particulars:

In 1842 there were	144	ships,	1,295	brigs,	7,551	schooners,	3,616 sloops.
In 1843 there were	151	"	1,194	"	8,228	"	3,525 "
In 1844 there were	152	"	1,175	"	7,483	"	2,566 "
	447	"	3,664	"	23,262	"	9,707 "

and to July, 1845, there were 122 ships, 805 brigs, 4,847 schooners, 1,796 sloops, passed Nantucket light-boat, (an immense amount of property indeed,) and yet there is no chart of this thoroughfare in existence that is worthy of the name.

"My rude angles to the ship Centurion, wrecked on the south shoal, (1845,) resulted in placing her within one hundred rods of the position of the shoal as located by modern observers. The history of this most dangerous and fatal shoal is startling. Situated in mid-ocean; having, in low ebbs, scarcely a foot of water; in a region proverbial for its heavy swell; rising, at times, without a moment's warning; the dread of all mariners, and the grave of thousands; laid down in a position twenty miles in error of latitude, and confided in as late as the year 1821—such is Nantucket south shoal! The honor of giving to this shoal its true locality belongs to Captain Jonathan Colesworthy, of this place, who, on the 24th of June, 1821, made its latitude 41° 3′ 55″, it having, in all former time, been considered to be 40° 44′. In looking over the documents of Captain C., I am entirely satisfied that, in the old location, there are forty fathoms of water. So strong, however, is the impression on the minds of our veteran seamen that the earlier location is the true one, that confidence is still wanting in the survey of Colesworthy, though he has always been distinguished as an accurate observer. Its new and probably true location is precisely in the track of all vessels bound to

44

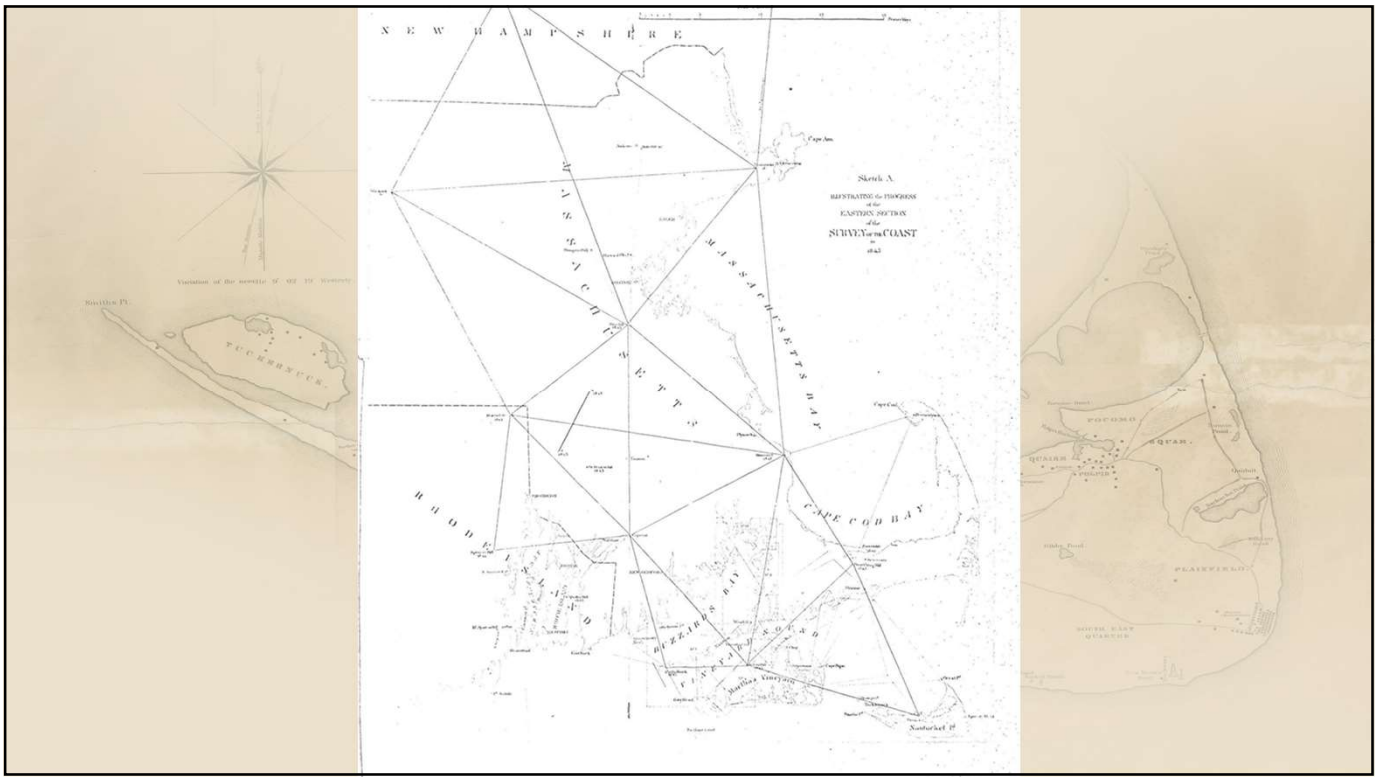
In addition, the geographical position of Nantucket will be determined by a continuous series of observations, which will be communicated for the use of the survey. These were commenced this season by Professor Elias Loomis, of the University of New York, who has communicated the results of observations of moon culminations, and for latitude, made during parts of July and August. They will be continued by William Mitchell,

Esq., of Nantucket, who will probably add prime vertical observations for the latitude to those in the meridian, and will observe the occultations computed by R. T. Paine, Esq., of Boston, as well as moon culminations with the almanac stars. The instruments used this summer for this purpose were a two feet transit belonging to Mr. Mitchell, and the West Point Troughton circle, loaned to the coast survey by the engineer department on the recommendation of Professor Bartlett. A transit for use on the prime vertical has been kindly loaned by Professor T. H. Perry, United States navy. Besides the importance of this station in a nautical point of view, it is of high practical and scientific interest, from occupying the southern extremity of an arc of the meridian passing near Portland, in Maine, the determination of the length of which will furnish the essential elements for the final computation of the work in this quarter, and the data for the figure of this portion of the earth's surface.

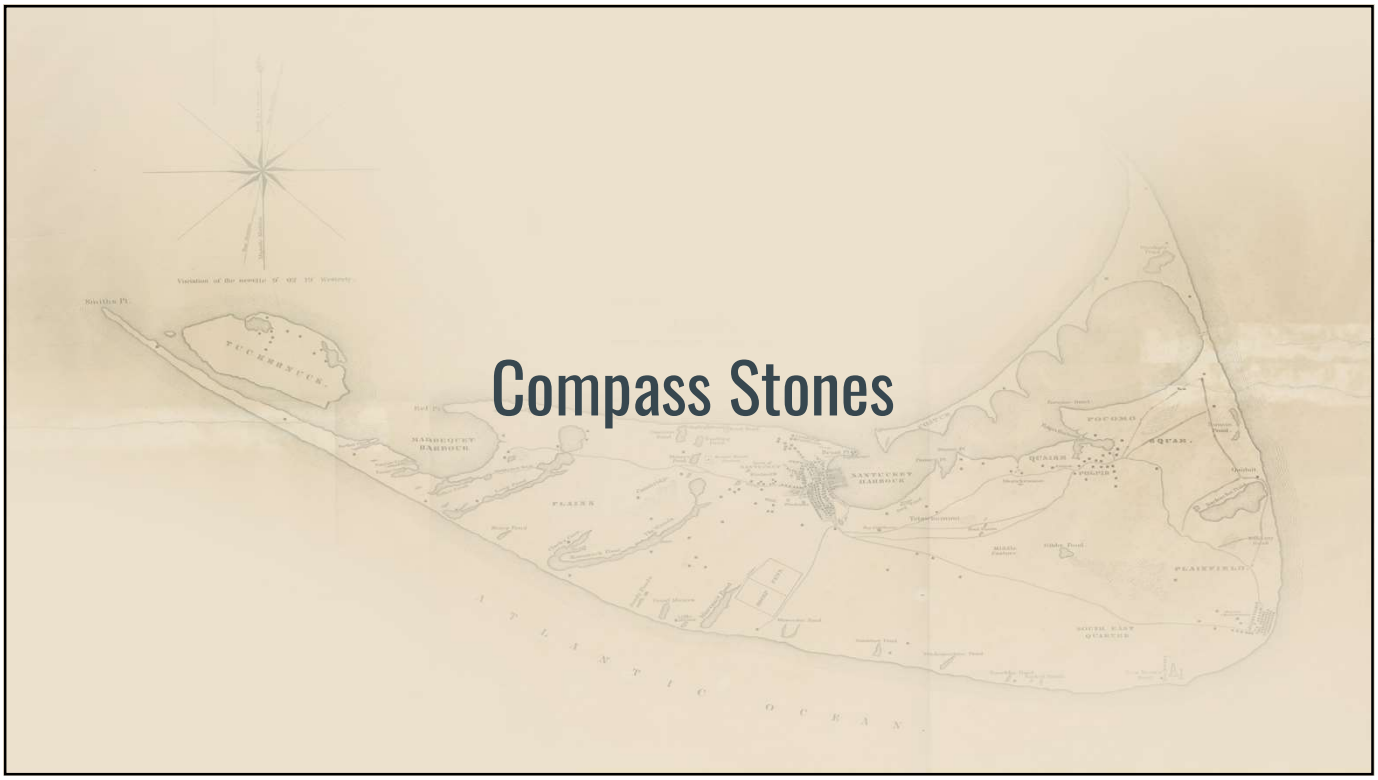
45

Mapped the way for safer nautical navigation

46


NEW HAMPSHIRE
Sketch A.
ILLUSTRATING the PROGRESS
of the
EASTERN SECTION
of the
SURVEY of the COAST
in
1842
MASSACHUSETTS BAY
CAPE COD BAY
RHODE ISLAND
BUZZARDS BAY
PLYMOUTH COUNTY
TUCKERNUCK
POCOMO
QUAM
PLAINFIELD
SOUTH EAST QUARTER

47


Compass Stones
TUCKERNUCK
NANTUCKET HARBOUR
POCOMO
QUAM
PLAINFIELD
SOUTH EAST QUARTER
ATLANTIC OCEAN

48

49

the American Surveyor

MARCH/APRIL 2022

New Technology

Mapping Ireland
Ordnance Survey tales

Meridian Stones
Nantucket mystery

Scanning Ships
Combining passions

Nikoline Bohr examines the northern Meridian Stone on Nantucket Islands historic Main Street.

CHRIS BERKENKAMP

Exploring the Mystery of NANTUCKET'S MERIDIAN STONES

In 1840 the astronomer and surveyor William Mitchell erected two white marble obelisks on perpendicular sidewalks in the Town of Nantucket, Massachusetts. These two stones are set in an astronomic north-to-south alignment and are commonly known as the Meridian Stones. The two historical stones have seen better days. Both stones have on multiple occasions been struck by carelessly driven vehicles. The southern stone was knocked to the ground numerous times during the early 1900s (*The Inquirer and Mirror* 1921; *The Inquirer and Mirror* 1964). To protect it from further damage two large concrete-filled iron bumpers have been erected on either side of it. The Northern stone has been struck several times during recent years and as a result, several marble chunks were gouged off of its surface. At this point, there are no established barriers positioned to protect the northern stone from yet another destructive vehicle impact.

Last February I began a research project focused on understanding just what Nantucket's Meridian stones are. It quickly became clear to me that these stones were once far more influential than they are currently believed to have been. Time has taken its toll on the stones and on the historical records of the stones. Over the course of nearly 200 years, most fact-based knowledge of their original purpose has been lost. The current perception is that the Meridian Stones were placed with the intent of being used by land surveyors as compass stones (Strelnitski 2009). Other suggested but until now unsubstantiated theories include that William Mitchell erected the Meridian Stones to aid him in rating chronometers, that ship captains would visit the Meridian Stones in order to correct their compasses and safely navigate the oceans, and that the Meridian Stones had no functional use other than being a monument to surveying and astronomy (Strelnitski et al. 2006; Orr 1995). Based on my

» NIKOLINE BOHR

Figure 1: Goolge Maps view of the meridian stones placement in relation to the Pacific Bank.
GOOLGE MAPS

Left: The sun rises over the northern Meridian Stone.
NIKOLINE BOHR

Below: The Meridian Stones dedication plaque mounted on the Pacific National Bank.
NIKOLINE BOHR

research it seems each of the suggested uses, at best, provides a partial understanding of what the Meridian Stones are and how William Mitchell intended for them to be used. I suggest the Meridian Stones join the terrestrial with the astronomic, mark the Town of Nantucket's first primary astronomic baseline, guided Mitchell in establishing Nantucket Mean Time, facilitated the determination of Nantucket Islands' true geographic position, and mapped the way for safer nautical navigation.

To better understand how William Mitchell used the Meridian Stones we must realize the significance of their exact location. The northern meridian stone is positioned beside the Pacific National Bank. The southern meridian stone is positioned a few hundred feet away and is in a clear line of sight from both the northern stone and from the bank's rooftop. Thus, if one draws a straight line passing through the center of the tip of the two Meridian Stones, the line will pass directly through the Pacific National Bank (**Figure 1**). In 1840 the Pacific National Bank was the location of William Mitchell's nautical rooftop observatory (H. Mitchell 1889).

The line indicated by the two Meridian Stones is a longitudinal line spanning from astronomic north to south as observed from the bank's rooftop. This line passes through the Pacific National Bank and through the heart of William Mitchell's rooftop observatory. Such a line is called a meridian line. It reaches from astronomic north to south and often passes through the position of an observer. In the mid-1800s, astronomy was still in its early stages, observatories were of

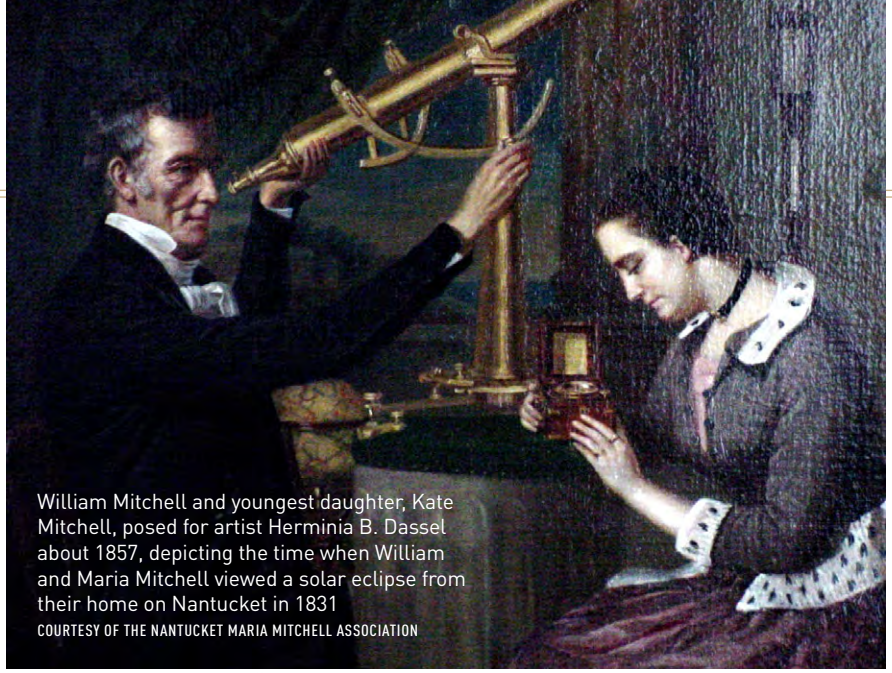
Figure 2: Map of the Island of Nantucket, Including Tuckernuck, William Mitchell, 1838, in the Map & Chart Collection, Nantucket Historical Association.

Map of the Town of Nantucket in the State of Massachusetts, William Coffin 1833, in the Map & Chart Collection, Nantucket Historical Association.

The northers Meridian Stone reads, Northern extremity of the Town's meridian line.
NIKOLINE BOHR

experimental makeshift construction, and time and place were not yet unified global measures. The early astronomers spent much time dedicated to measuring the globe. Timekeeping and cartography were a primary focus. Astronomers such as Mitchell would align their telescope to the meridian of their observatory in order to accurately and precisely observe the transit of planets and stars as they crossed over the meridian line. It is from these observations one can accurately calculate local mean time, determine relative local latitude and longitude, and chart the sky, the land, and the ocean. It should furthermore be noted that during the mid-1800s large international observatories, including the Greenwich Observatory and the Cambridge Observatory of Harvard University, not only established meridian lines but also erected meridian sight marks on their meridian lines (Pond 1833; Lovering and Bond 1846). These sight marks were used by the astronomer to align the micrometer hairs of a telescope's sight with a mark on the respective meridian sight mark thus ensuring the telescope would always be perfectly in line with the meridian line. It seems likely Mitchell similarly aligned the sight of his telescopes to the vertical markings on the southern meridian stones, thereby suggesting the Meridian Stones are meridian sight marks. In essence, the Meridian Stones are the grounding markers of Mitchell's astronomical observations. But let's look a little closer at how this applies to the current and past perception of how William Mitchell used the Meridian Stones.

Calculations in William Mitchell's astronomical journal indicate he calculated the position of the Meridian Stones in 1836 from



William Mitchell and youngest daughter, Kate Mitchell, posed for artist Herminia B. Dassel about 1857, depicting the time when William and Maria Mitchell viewed a solar eclipse from their home on Nantucket in 1831
COURTESY OF THE NANTUCKET MARIA MITCHELL ASSOCIATION

the rooftop of the Pacific National Bank (W. Mitchell 1845). Their latitude and longitude appear to be the same as the latitude and longitude of the Town of Nantucket as presented on the first accurate map of Nantucket town, as surveyed by William Mitchell, and printed in 1838 (**Figure 2**) . Thus, it appears the Meridian Stones represent a surveyor's baseline. Compass Stones are one of several types of land surveyors' baselines. They are set in local astronomic north-to-south alignment and are intended to aid surveyors in accounting for the influence of the earth's magnetic field variations on their compass needles. Mitchell knew accounting for magnetic field variations was essential when one wished to make consistent and repeatable land measurements. If Mitchell erected the Meridian Stones for this purpose, it seems likely there may once have been a third stone placed between the northern and the southern stone.

Chronometers are seafaring clocks designed to withstand the harsh conditions of a long ocean voyage while continuing to maintain a dependable and consistent time. Before modern navigational technology, a ship's captain would have depended on accurate chronometers in order to determine the latitude and longitude of a ship while at sea. It is nearly impossible to safely navigate shallow ocean waters without knowing a ship's exact geographic position. We know William Mitchell rated chronometers for ships captains long before he established his nautical rooftop observatory. A chronometer is rated by comparing the passage of time given by the chronometer to a known local mean time. This must be repeated over the course of several days, at the same exact time every day. The goal is to obtain a set value for how much time the chronometer gains or loses each day. By establishing a rooftop observatory, Mitchell was able to calculate Nantucket Mean Time far more accurately than before. With this consistent and dependable local reference time, he was capable of rating chronometers far more precisely. This is reflected in his astronomical journal where one will find Mitchell rated chronometers to Greenwich Mean Time prior to 1840 and at later dates began rating chronometers to Nantucket Mean Time (W. Mitchell 1845). Thus, the Meridian Stones directly assisted Mitchell in rating chronometers to the highest standard.

The sun rises over historic Main Street.
NIKOLINE BOHR

Assuming the Meridian Stones are compass stones, it seems plausible ship captains would have visited the stones to check the local magnetic field variation. By doing so a captain would be able to more accurately read local nautical maps depicting Nantucket's near-lying treacherous shoals. During the mid-1800s the shoals off of Nantucket's coast were a deathtrap for many a large seafaring vessel. The geographic location of the shoals was poorly documented and to further complicate the task of safely navigating in and out of Nantucket Harbor, Nantucket's known geographic position was also of questionable accuracy. Mitchell recognized the dangers of Nantucket's shoals and brought this to the attention of the Coast Survey. His suggestion to map Nantucket's near-lying shoals was taken seriously by the Coast Survey who responded immediately. One of the first tasks at hand would be to determine the exact geographic location of Nantucket Island. This task was appointed to William Mitchell (Bache, U.S. Congress. House, et al.

The southern Meridian Stone as it currently stands on Fair Street.
NIKOLINE BOHR

1845). Thus, Mitchell continued to track the stars as they transited the meridian line of his observatory in order to determine Nantucket Islands' exact geographic position and assist the Coast Survey in accurately charting Nantucket's treacherous shoals.

With respect to the notion that the Meridian Stones were erected simply as a monument to science, this can hardly be considered accurate. However, as the stones still stand today, they are a reminder of past scientific advances and a monument to William Mitchell. It seems only right to recognize the Meridian Stones for what they truly are and to protect them from further damage in order to honor Mitchell's vision and his significant contributions to the advancement of seafaring safety.

Please visit www.meridianstones.com if you would like to protect William Mitchell's Meridian Stones and help save a significant piece of New England's history. ■

Nikoline Bohr is a scientist, a historian, a treasure hunter and an artist. She has a BS in Physics from Rensselaer Polytechnic Institute. With a scientific core and a treasure hunters taste for adventure Bohr explores our collective past with hopes of aiding a brighter future. Her current work focuses on preserving Nantucket Islands complex and fragile history for coming generations to appreciate and learn from.

This article is a just summation of my initial research on the Meridian Stones.

Forever dedicated to my beloved and wise grandmother Dorothy Hesselman.

I would like to extend a thousand thank-you's to the Maria Mitchell Association for granting me access to William Mitchell's journals and letters, and to the Nantucket Historical Association for providing a wealth of historical documents to browse.

Bache, A. D., U.S. Congress. House, U.S. Coast Survey (1807-1878), and U.S. Department of the Treasury. 1845. *Coast Survey Annual Report 1845*. 1845th ed. Vol. 29th Congress, 1st session, nos. 38, serial set no. 482, 38. United States Congressional Serial Set. Washington, DC: House Document. https://bit.ly/3M2enQy

Lovering, Joseph, and W. Cranch Bond. 1846. "An Account of the Magnetic Observations Made at the Observatory of Harvard University, Cambridge [Part I]." *Memoirs of the American Academy of Arts and Sciences* 2: 1–84. https://doi.org/10.2307/25057929.

Mitchell, Henry. 1889. "Maria Mitchell." *Proceedings of the American Academy of Arts and Sciences* 25: 331–43.

———. 1845. "Astronomical Journal 1847 with Letters." Nantucket Maria Mitchell Association. Mitchell Family Papers, Series The W. Mitchell Family a. William Mitchell, Box 2, Folder, 4,. Nantucket Maria Mitchell Association.

Orr, Robert C. 1995. "Those Meridian Markers." *Nantucket Historical Association*, Maritime Mementos, Volume 44 No. 2 (Fall 1995): 87–89.

Pond, John. 1833. "Supplement to the Greenwich Observations for the Year 1832; Containing the Reductions of the Observations." *Astronomical Observations Made at the Royal Observatory at Greenwich* 17. http://adsabs.harvard.edu/abs/1833RGAO...17N...1P.

Strelnitski, Vladimir. 2009. *Meridian Stones Dedication Plaque*. Wall plaque mounted on the Pacific National Bank.

Strelnitski, Vladimir, P. Boyce, R. diCurcio, and L.C. Asadoorian. 2006. "Historical Meridian Stones on Nantucket & Elsewhere." *The American Surveyor*, May 2006.

The Inquirer and Mirror. 1921. "Damage Leads to Queries.," January 1, 1921. https://bit.ly/3HpwGeZ.

———. 1964. "Summer Visitor Notes Meridian Stone Twist," July 30, 1964. https://bit.ly/3pnsh6j.

Through the Transit: William Mitchell, Father of Nantucket Time

The Meridian Stones stand on Nantucket's sidewalks, dirty and dented. Since first erected in the mid-1800s, knowledge of their original purpose has largely been lost to the passage of time. For decades they have been misunderstood. It is thought that the Meridian Stones were erected for the singular purpose of assisting land surveyors in accounting for local magnetic field variations as indicated by their compass needles.[1] Based on my recent research, I suggest the Meridian Stones served a more diverse scientific purpose and facilitated pivotal geographical advances.

The current misperception, which is widely accepted, has not always been the prevailing belief. Over the years, several conflicting opinions have been presented as to what purpose the Meridian Stones originally served. It has been suggested that they were used by William Mitchell to rate chronometers,[2] that they were erected as compass stones for the benefit of land surveyors, that they assisted ships' captains in calibrating their compasses,[3] and that they had no functional purpose other than that of being a monument to scientific curiosity.[4] Any one of these uses is, at best, a partial representation of the Meridian Stones' intended function. A more complete understanding begins with recognizing the relationship between the Meridian Stones and

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[1] Vladimir Strelnitski, *Meridian Stones Dedication Plaque*, wall plaque mounted on the Pacific National Bank, 2009.

[2]Harry B. Turner, *Nantucket Argument Settlers : A Complete History of Nantucket in Condensed Form* (Nantucket: The Inquirer and Mirror Press, 1946), 175.

[3]Robert C. Orr, "Those Meridian Markers," *Nantucket Historical Association*, Maritime Mementos, Volume 44, No. 2, Fall 1995: 87–89.

[4]Vladimir Strelnitski, et al., "Historical Meridian Stones on Nantucket & Elsewhere," *The American Surveyor*, May 2006, 1–9.

Williams Mitchell's rooftop observatory. By examining the standards and innovations of timekeeping, astronomy, cartography, and nautical navigation during the mid-1800s, along with taking a detailed look at William Mitchell's astronomical journals, it becomes apparent that the Meridian Stones served a far greater purpose than what is currently believed. I suggest the Meridian Stones joined the terrestrial with the astronomic by forming the spine of William Mitchell's nautical observatory. Thereby they effectively established *Nantucket Time* as a monitored and controlled constant, marked the town of Nantucket's primary astronomic baseline, and forged the way for safer nautical navigation. For William Mitchell, from the vantage point of his rooftop observatory, the Meridian Stones were used as longitudinal sight marks.

Figure 1

The Northern Meridian Stone

Note. The Northern Meridian Stone at sunrise; the stone is located on upper Main Street, Nantucket. Photograph by N. Bohr, 2021.

William Mitchell was a humble man of many skills. Born in 1791 on Nantucket Island, a small New England island renowned for its boundless horizons, its salty whaling captains, and its life-claiming, treacherous shoals. Mitchell dedicated his life to the learning and sharing of knowledge for the benefit of his local community. He was a teacher, a surveyor, a cashier, an astronomer,[5] and today he is best known as the father of Maria Mitchell, America's first accredited female astronomer.[6]

Mitchell erected the Meridian Stones in 1840 on Nantucket Island. The Meridian Stones are two white marble pillars that establish the meridian line of Nantucket Town. A meridian line is a fixed longitudinal reference line spanning from the Earth's South Pole to the Earth's North Pole and passing directly through the position of an observer. The two stones, positioned 289.19 feet apart[7] on the curbs of Nantucket's brick sidewalks, are engraved:

1840

Northern extremity of the Town's meridian line

Southern extremity of the Town's meridian Line

The northern stone stands on Main Streets' sidewalk, beside the Pacific National Bank, adjacent to Fair Street (Figure 1). The Pacific National Bank happens to be the location where

[5]William Mitchell, "Autobiography" (Autobiography, 1868), Mitchell Family Papers, Series I,The W. Mitchell Family a. William Mitchell, Box 1, Folder 1, The Nantucket Maria Mitchell Association.

[6]Sally Gregory Kohlstedt, "Maria Mitchell: The Advancement of Women in Science," *The New England Quarterly* 51, no. 1 (1978): 69.

[7]Strelnitski, et. al., "Historical Meridian Stones on Nantucket & Elsewhere," 1–9.

Mitchell once established his rooftop observatory.[8] The southern Meridian Stone stands on Fair Street in front of the Friends Meetinghouse and the Nantucket Historical Association's Research Library. The northern stone has a vertical line engraved, beginning at its pointy tip and continuing down, ending in a round drop near the base of the stone. The southern stone has a similar line carved in it, reaching from its highest point all the way down to the ground.

A Quick Look at Time and Place

Time is a measure. In this digital world, time is commonly perceived to tick along steadily, moving forward at a set rate. We trust it to be dependable. But this stable constant counter we are so familiar with was not always a reliable measure or a unified global constant. Before our modern world, all measures of time were location dependent and relied on mechanical clocks with imperfect mechanisms to maintain a rhythm. The time told by these clocks was regulated by repeated observations of the sun, the moon, the planets, and the stars. One's geographic location was similarly obtained by astronomical observation. In fact, time and place are so closely correlated that complications of nautical navigation, caused by the difficulty of obtaining an accurate longitude while at sea, were the driving force behind the invention of the marine chronometer.[9] A chronometer is a windable clock. Its mechanism is designed to be unaffected by temperature shifts and it is set on pivots in a box in order to counter the rocking

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[8]Henry Mitchell, "Maria Mitchell," *Proceedings of the American Academy of Arts and Sciences* 25 (1889): 335.

[9]W. E. May and H. D. Howse, "How the Chronometer Went to Sea," *Vistas in Astronomy* 20 (January 1976): 135.

motion of ocean waves, thus allowing the chronometer to maintain a dependable time while on long ocean voyages.

Time based on the sun's transit across the meridian is called solar time and is generally less accurate than time obtained from the transit of a star, which is called sidereal time. Therefore, in order to determine the most accurate local time by observation, an observatory, equipped with telescopes to track a star's movement across the night sky, is required. Here the observer first establishes a local meridian line on which a transit instrument, or a similar telescope, is positioned. A star's passage across the meridian line is then observed. The most precise results are achieved by averaging repeated observations of the same star transiting the same meridian hundreds of times. During the 1800s, towns, villages, and cities depended on skilled clockmakers, land surveyors, ocean navigators, and astronomers to determine local mean time and set their clocks accordingly. Local time was dependent on the exact position of an observer and the accuracy of their observations. As a result, due to variables as common as human error, discrepancies between time and place were common.[10]

It was not until nearly 41 years after Mitchell erected the Meridian Stones that variations in local mean time between distant places were brought to light and began to cause problems. Modern scientific and industrial advances, such as the invention of the telegraph and the growing popularity of rapidly expanding public railroad networks, had exposed inconsistencies which led to misunderstandings and resulted in accidents. A global initiative was undertaken to agree upon

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[10]Robert Treat Paine and Simeon Borden, “Account of a Trigonometrical Survey of Massachusetts, by Simeon Borden, Esq., with a Comparison of Its Results with Those Obtained from Astronomical Observations, by Robert Treat Paine, Esq., Communicated by Mr. Borden,” *Transactions of the American Philosophical Society* 9, no. 1 (1846): 33–91.

a standardized method of unifying all local time and place. A series of conferences were held, and during the culminating two, a defined system for universal time reckoning was agreed upon. The first of the two final conferences was the *Third Annual Geographical Congress And Exhibition*, which took place in Venice, Italy, in 1881. Among the primary topics discussed were the means of establishing a single global primary meridian to serve as the Zero degree line of longitude for all earthly measures. The consensus was that a primary meridian must pass through one of the world's grand observatories and for a second conference to be held at which the best suited observatory was to be determined.[11] As a result, the International Meridian Conference took place in October, 1884, in Washington, DC. Here the establishment of the Greenwich Meridian, as the Zero degree meridian, was agreed upon, thus forever joining hours, seconds, and minutes with latitudes and longitudes, all to be calculated systematically based on the prime meridian of the Greenwich Observatory, thereby establishing universal time and place as we know them today.[12]

The Observatory and the Meridian Stones

[11]Wheeler, *Third Annual Geographical Congress And Exhibition* (U.S. National Committee of the International Geographical Union, National Academy of Sciences--National Research Council, 1885), 23–36.

[12]International Meridian Conference, *International Conference Held at Washington for the Purpose of Fixing a Prime Meridian and a Universal Day: Protocols of the Proceedings*, Harvard College Library Preservation Digitization Program (Washington, D.C.: Gibson Bros, 1884), 199.

William Mitchell established his observatory on the rooftop of the Pacific National Bank in 1836,[13] and erected the Meridian Stones in 1840. From this rooftop, Mitchell observed meridian transits, prime vertical observations, moon culminating stars, occultations, eclipses, nebulas, and comets. The majority of telescopes and astronomical equipment Mitchell had access to were lent to him by Dr. Bache of The Coast Survey and W. C. Bond of Cambridge Observatory, Harvard University.[14] Mitchell regularly notes the specific type of telescopes he made use of; many of them being transit instruments. A transit instrument is, by design, only able to pivot within one singular, two-dimensional plane. It is intended to observe the arc of astronomic north to south, the plane of a meridian line, and should never deviate east or west. It is situated in an observatory, directly on the observatory's designated meridian line, where it is used to observe the passages of the stars as they cross over its meridian. From these observations, an observer can determine the exact latitude, longitude, and time of the observatory's position. Any slight unaccounted for deviation in a transit's alignment will result in significant errors of measure and render any observed data relatively useless.

Because the alignment of a transit instrument is crucial to obtaining accurate scientific data, many observatories punctuated their meridian lines with distant reference points. Such a reference point is referred to as a meridian mark, and this is what I suggest William Mitchell's Meridian Stones are. A meridian mark is a distant terrestrial mark established on an observatory's meridian line, which serves the specific purpose of aiding the observer in verifying

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[13]Mitchell, "Maria Mitchell," 334.

[14]William Mitchell, "Astronomical Journal 1847 with Letters" (Nantucket Maria Mitchell Association, 1850 1845), Mitchell Family Papers, Series The W. Mitchell Family a. William Mitchell, Box 2, Folder, 4, Nantucket Maria Mitchell Association.

the precise alignment of a transit instrument. There are many examples of the most established observatories during the first half of the 1800s making use of meridian marks. In 1846, Joseph Lovering, a professor of mathematics, and W. Cranch Bond, an astronomer, describe a meridian point of the Cambridge Observatory of Harvard University:

> A firm and substantial meridian mark has been erected on that hill, consisting of a tower of round and substantial masonry, thirteen feet in diameter at the base, seventeen feet high above the ground and nine feet in diameter at the top. On this is placed a mark seven feet high, of the shape of the rhomb, with its larger axis perpendicular to the horizon. By this means the central vertical wire of the Transit instrument is put in the meridian.[15]

In 1832, John Pond, an astronomer, describes the method of aligning the Greenwich Observatory's transit instrument to its meridian mark:

> If the central wire of the transit be made to bisect the north mark…. The position of the Azimuth is ascertained, when the weather permits, by observing the North Meridian mark at Blackwall, which was set upon July 1816…. This Mark has been verified by numerous observations of Circumpolar stars.[16]

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[15]Joseph Lovering and W. Cranch Bond, "An Account of the Magnetic Observations Made at the Observatory of Harvard University, Cambridge [Part I]," *Memoirs of the American Academy of Arts and Sciences* 2 (1846): 5.

[16]John Pond, "Supplement to the Greenwich Observations for the Year 1832; Containing the Reductions of the Observations," *Astronomical Observations Made at the Royal Observatory at Greenwich* 17 (1833): iii.

Other renowned observatories, such as the Paris Observatory, in France, and the Neuchâtel Observatory, in Switzerland, also made use of meridian marks. It is reasonable to suggest Mitchell aligned the vertical wire of his transit instrument with the vertical line on the southern Meridian Stone. By doing so, Mitchell would have ensured his transit instrument was always centered in the field of his observatory's meridian line. Thus the Meridian Stones, being meridian sight marks, are the scientific precision markers which grounded William Mitchell's astronomical observations to the exact location of his observatory on Nantucket Island.

Did Mitchell Use the Meridian Stones to Rate Chronometers?

This is not a question of whether or not William Mitchell rated chronometers. We know with certainty he rated whaling captains' chronometers long before the Meridian Stones were erected. In fact, it seems this is the main cause of confusion. It is easy to falsely assume that if William Mitchell successfully rated chronometers prior to erecting the Meridian Stones, then he surely did not need or use the Meridian Stones to rate chronometers. However this logic is flawed. In order to understand whether Mitchell used the Meridian Stones to rate chronometers, let's take a look at the place chronometers occupied in the nautical world of the mid-1800s.

The accuracy of timekeeping can mean the difference between life or death on the open ocean. A chronometer that tells a time only a few seconds different from its expected time can result in a ship's location being significantly displaced, sometimes headed straight into an unforeseen rocky shallow or dangerous shoal. Marine chronometers were the most accurate timekeepers for ocean voyages. By the early 1800s, chronometers were being produced at sufficiently low cost and operated with such superior accuracy that they became commonplace on all seafaring vessels. The ability to accurately obtain one's longitude while at sea was so

dependent on the chronometer that chronometer raters began to open shops in major ports. Some dedicated chronometer raters, such as William Mitchell, realized the extreme importance of rating a chronometer to the most precise time possible and built nautical observatories for timekeeping.[17]

Large international observatories also recognized the importance of maintaining the highest standards of timekeeping. Some observatories not only rated chronometers but also incentivized chronometer manufacturers to maintain stringent quality control by hosting enticing chronometer competitions. Chronometers were tested and ranked not only to ensure they met the expected industry standard but also against one another to determine which chronometer was the best. The Greenwich Observatory held Chronometer Trials[18] and the Neuchâtel Observatory held competitions with prestigious certificate rewards.[19] During these trials, observatories checked and tested chronometers against the most stringent and controlled set of variables, which resulted in an overall impressive quality standard for manufacturing.

Mitchell understood that the lives of entire ships' crews depended on his ability to accurately tell time and rate their chronometers accordingly. During Mitchell's early years, he rated chronometers to Greenwich mean time. In later years, after the Meridian Stones were erected, his calculations were more complex. He then rated chronometers to "*Nantucket Mean*

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[17]Ian R. Bartky, *Selling the True Time: Nineteenth-Century Timekeeping in America*, (Stanford, CA: Stanford University Press, 2000), 12.

[18]May and Howse, "How the Chronometer Went to Sea," 136.

[19]Marc-Olivier Schatz, "Space and Time: Stories from the Neuchâtel Observatory," *Space and Time: Stories from the Neuchâtel Observatory,* (Masters Design Project, University of the Arts Bern, Bern, Switzerland, 2021), 34.

Time."[20] This is the local observed time of his rooftop observatory, which he calculated by observing meridian passages.[21] Guided by the Meridian Stones, Mitchell observed the stars as they transited the meridian line in order to establish *Nantucket Time* as a dependable measure for place. Thus aligned to the Meridian Stones, William Mitchell determined the precise time position of his observatory and rated chronometers accordingly.

Were the Meridian Stones Compass Stones?

During 1837 and 1838, William Mitchell made observations to calculate the latitude of his observatory at the Pacific National Bank. During these years, he also surveyed the whole of Nantucket and is credited with drafting the first accurate map of Nantucket Island, printed in 1838.[22] The latitude printed on the 1838 map[23] was calculated by Mitchell from the Pacific National Bank on September 30, 1838.[24] It is therefore reasonable to assume that the longitude printed on William Mitchell's 1838 map similarly corresponds to the longitude of the Pacific National Bank. Thus the longitude displayed on William Mitchell's 1838 map likely corresponds to the longitude of the Meridian Stones and thereby effectively confirms the Meridian Stones represent the two primary stations of a local baseline used for surveying Nantucket Island. Mitchell may have combined the need for a primary baseline to benefit future surveyors with the

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[20]Mitchell, "Astronomical Journal 1847 with Letters."

[21]Mitchell. "Astronomical Journal 1847 with Letters."

[22]William Mitchell, "William Mitchell Notebook" (The Nantucket Maria Mitchell Association, Nantucket, 1840 1820), Mitchell Family Papers, Series I The W. Mitchell Family a. William Mitchell, Box 3, Folder 6, The Nantucket Maria Mitchell Association.

[23]William Mitchell, *1838 Map of The Island of Nantucket by William Mitchell*, 1838.

[24]Mitchell, "William Mitchell Notebook."

wish to establish a permanent meridian line with reference meridian marks for his observatory when he designed the Meridian Stones.

Compass stones are a set of stone markers positioned in an astronomic north to south alignment, thus establishing a local baseline. Their intended use is for land surveyors to check the deviation of the local magnetic field and adjust their compasses accordingly. This is done by noting the difference between the magnetic north indicated by the compass needle and the astronomic north given by the alignment of the compass stones. The earth's magnetic field is always fluctuating; it varies widely depending on one's global position, and it influences a compass needle's direction. This causes a compass to regularly change the direction of north which it indicates, and it means magnetic north, unlike astronomic north, is an inconsistent measure which should not be depended on for accurate, repeatable measurements over periods of time. The angular magnetic deflection of the compass needle between astronomic north and magnetic north had to be accounted for when surveyors wished to accurately measure the land. By the late 1800s several states, including the state of Massachusetts, passed legislation requiring towns to establish compass stone baselines. This was intended to address neighborly disputes over poorly surveyed local property lines. The idea was, if all compasses used by surveyors were always corrected to the same local astronomic north baseline, measured property lines would be repeatable, and therefore undisputable, for all future surveying jobs.[25] However, compass stones are but one of many types of baselines used by surveyors. There are many other types of baselines such as calibration baselines and GIS baselines.[26] Therefore the fact that the

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[25] Wayne Twigg, "The Compass Meridian Stones of Frederick, Maryland," *The American Surveyor*, 2017.

[26]Wayne Twigg, "Baselines Inquiry," [Personal Communication] April 19, 2021.

Meridian Stones form a baseline does not determine whether or not they are compass stones. Mitchell's Meridian Stones are only compass stones if they were intended to assist surveyors in checking the magnetic field variations' influence on their compass needles.

It is evident William Mitchell understood the importance of accounting for the Earth's magnetic field when surveying the land and when charting the ocean. In 1844 Mitchell published an article titled, "*The Variation and Dip of the Magnetic Needle at Nantucket, Mass.*"[27] which described his latest magnetic field observations. The observations are as follows: during the year of 1834 he observed the sun's amplitudes, calculated the meridian based on his observations, and thereby found the deviation of his compass needle to be 8°.27' westerly, the same exact magnetic declination printed on William Coffin, Jr.'s map of the town of Nantucket.[28] In 1837 and 1838 Mitchell found the deviation of his compass needle to be 9°.02'.19" which is the same deviation indicated on his 1838 map of Nantucket Island.[29] Then Mitchell writes, "In the summer of 1842, I established a meridian line on an open plain with stations fourteen hundred feet asunder, and remote from all visible local magnetic influences."[30] This raises the obvious question, if Mitchell had intended to use the Meridian Stones in Nantucket Town as compass stones, why did he establish a second meridian line in a field far away, two years after he erected the Meridian Stones in Nantucket Town? Either the Meridian Stones were not initially intended to be used as compass stones, or maybe Mitchell discovered, after having erected the stones, that there was too

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[27]William Mitchell, "ART. XVIII.--The Variation and Dip of the Magnetic Needle at Nantucket, Mass.," *American Journal of Science and Arts (1820-1879)* 26, no. 1 (April 1844): 157.

[28]William Coffin, *Very Fine Map of the Town of Nantucket by William Coffin*, 1834.

[29]Mitchell, "1838 Map of The Island of Nantucket by William Mitchell."

[30]Mitchell, "ART. XVIII.--The Variation and Dip of the Magnetic Needle at Nantucket, Mass."

much local magnetic influence in Nantucket Town to obtain a dependable compass reading. One thing is sure, the meridian line in town is not the same as the one which Mitchell established in a field, for the one in town is only 289.19 feet long.[31] Mitchell finally describes a final set of measurements. In 1843, he performed a series of far more meticulous calculations. Mitchell used a compass, a sextant, and a movable mark set equal distance between the two end stations of his meridian line.[32] This raises the most interesting question of all. Is there a missing Meridian Stone? Many compass stones around America are not two but a set of three stones, all aligned to one meridian line, with the center stone flush to the ground directly in between the other two markers.[33] Mitchell saw the benefit in positioning himself in between the two stones on the open field meridian line. His use of a movable mark tells us this. If Mitchell's Meridian Stones, in Nantucket town, were designed to serve the purpose of compass stones, it seems likely he would have considered placing a center stone equal distance between the northern stone and the southern stone. Were the Meridian Stones once a set of three, and if they were, is there a chance the third center stone could still be hiding just below the concrete in the middle of Fair Street?

Did Ships' Captains Check Their Compasses at the Meridian Stones?

During the 1700s and first half of the 1800s, Nantucket Island was the epicenter of the American whaling industry. To this day, the lucrative trade of whale oil remains a primary source for much of the island's inherited wealth. Merchants and captains were in abundance on Nantucket and the sandy shoals surrounding the island were a far too familiar deathtrap. A ship's captain may

[31]Strelnitski. Et. al., "Historical Meridian Stones on Nantucket & Elsewhere."

[32]Mitchell, "ART. XVIII.--The Variation and Dip of the Magnetic Needle at Nantucket, Mass."

[33]Wayne Twigg, "Baselines Inquiry," April 19, 2021.

conceivably have visited the Meridian Stones to determine the current local magnetic field deviation in order to accurately chart the local waters. Nantucket harbor and surrounding waters were then and are still today considered exceedingly tough to navigate due to the numerous lurking shoals. Ships' captains would have depended on precise local maps in order to safely navigate around the island. Such a map would provide the local magnetic field declination which a navigator would apply to his compass when reading the map. However, if several years had passed since a map was printed, the magnetic declination indicated by the map would effectively be out of date. A ship's captain would surely know to obtain a current reading of the local magnetic field deviation and this magnetic deviation would ideally be obtained at the same baseline from which a map was initially measured.

In 1845 William Mitchell sent a letter to Dr. Bache of the Coast Survey. Mitchell wrote about Nantucket's pivotal Atlantic position, its dangerous shoals, and its vicinity to common trade routes. He pointed out how no sufficient maps of Nantucket's surrounding shoals existed. Mitchell's letter urged the Coast Survey to take a closer look at the sheer number of ships passing Nantucket annually and the frequency with which ships, during fair weather, encountered a shoal in the region. Both the great financial cost of losing a fully stocked merchant vessel and the significant number of lives lost were discussed. In order to address any remaining doubt that Nantucket's waters were indeed central to international trade routes, Mitchell included a detailed count of all the ships that passed the Nantucket Light Boat annually (Bache et al., 1845a). According to the Captain of the Light Boat:

In 1842 there were	144 ships,	1,295 brigs,	
	7,551 schooners,	3,616 sloops.	

In 1843 there were 151 [ships,]
1,194 [brigs,] 8,228
[schooners,] 3,525 [sloops.]
In 1844 there were 152 [ships,]
1,175 [brigs,] 7,483
[schooners,] 2,566 [sloops.]
447 [ships,]
3,664 [brigs] 23,262 [schooners] 9,707 [sloops.]
…. An immense amount of property indeed - William Mitchell.[34]

The 1845 Coast Survey's report examined Mitchell's concerns and provided examples such as:

> The ship Centurion, lost on Nantucket south shoal during the summer for want of knowledge of the extent of the shoal and of the set and drift of the tides, near and upon it, was insured for the sum beyond the whole appropriation for the field work of the year.[35]

Mitchell's letter left the Coast Survey with little doubt. These shoals had been neglected for far too long and there was no time like the present to address this error. The report of 1845 specifies how the Coast Survey swiftly proceeded with triangulation measures to map the East

[34]A. D. Bache, U.S. Coast Survey (1807-1878), et al., *Coast Survey Annual Report 1845*, 1845th ed., vol. 29th Congress, 1st session, nos. 38, serial set no. 482, 38, United States Congressional Serial Set (Washington, DC: House Document, 1845), 43.

[35]A. D. Bache, U.S. Coast Survey (1807-1878), et al., *Coast Survey Annual Report 1845*, 1845th ed., vol. 29th Congress, 1st session, nos. 38, serial set no. 482, 38, United States Congressional Serial Set (Washington, DC: House Document, 1845), 43.

Coast and how it specifically had included Nantucket as a focus. The Coast Survey recognized the opportunity William Mitchell, and his observatory, provided. With Mitchell's help, it would finally be possible to determine Nantucket's precise latitude and longitude and put Nantucket Island on the maps in its rightful Atlantic position. A map of the New England Coast (Figure 2), which was included in the Coast Survey Annual Report of 1845, depicts the Coast Survey's new triangulation efforts, and shows how knowing Nantucket's position was key to triangulating its near-lying shoals.[36] There is no other singular point as central to these shallow sandbars nor as isolated from the remainder of the American East Coast as the island of Nantucket.

By providing continuous detailed observations from Nantucket, an island so remote, no other body of land can be seen on its Atlantic horizons, Mitchell facilitated the Coast Survey's efforts in drafting charts of the Nantucket shoals with far greater accuracy and precision than it otherwise would have been able to achieve. The observations Mitchell reported to the Coast Survey were: Moon culminations and moon culmination stars (for time), Prime vertical observations, Occultations of Jupiter, Solar eclipses, and Meridian Passages for time.[37] The Coast Survey relied on these observations to accurately chart the waters and to determine the exact longitude and latitude of Nantucket Island. Therefore the Meridian Stones are the first astronomic baseline to determine the precise geographic location of Nantucket.

A wise ship's captain, who did not wish to shipwreck on a sandy shoal while sailing in or out of Nantucket's port, would have relied on the Coast Survey's maps and would have known to obtain a current reading of Nantucket's magnetic field. Whether he did this by holding his compass to Mitchell's Meridian Stones, or by other means, is not currently known to me. If the

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[36]Bache, U.S. Congress. House, et al., *Coast Survey Annual Report 1845*.

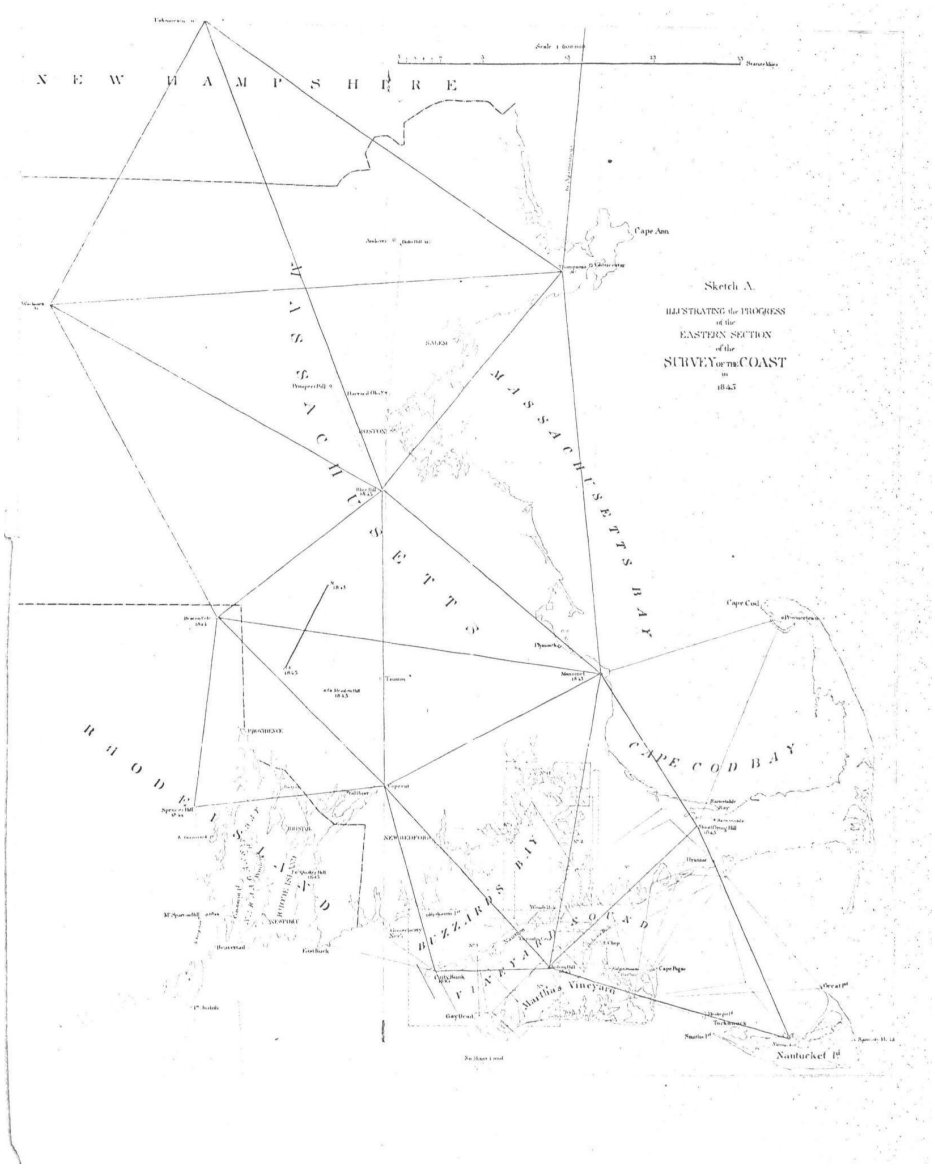
[37]Mitchell, "Astronomical Journal 1847 with Letters."

Meridian Stones were in fact designed for surveyors to check the magnetic deviation of their compass needles, then it seems likely ships' captains would have done the same in order to securely navigate the local shoals. However, it should be noted, though the Meridian Stones are the astronomic baseline for both William Mitchell's 1838 map of Nantucket Island and for the determination of Nantucket's Atlantic position on the maps by the Coast Survey, they are not the magnetic baseline for these maps. An examination of the Coast Survey's 1848 Map of Nantucket Harbor confirms Mitchell did not perform the magnetic observations for the Coast Survey.[38] Thus a ship's captain would have indirectly depended on the Meridian Stones because they facilitated Mitchell in observing the precise observations which placed Nantucket in its accurate position on the nautical maps.

Figure 2

Coast Surveys 1845 Map of Triangulating the New England Coast

[38]Bache, A.D., *Nantucket Harbor*, Atlas Map, 1:20,000, 7 (Nantucket Harbor: United States Coast Survey, 1848), David Rumsey Historical Map Collection.



Note: Sketch A, illustrating the progress of the eastern section of the survey of the coast in 1845. From *Coast Survey Annual Report 1845* (Map 1, Sketch A), by U.S. Coast Survey, Public Domain.

The Meridian Stones as a Monument

Today, the Meridian Stones are a monument to past scientific advances and to the astronomer William Mitchell. They once guided William Mitchell in measuring the sky, the land, and the

ocean. The Meridian Stones established *Nantucket Time* and determined Nantucket Island's latitude and longitude, thereby putting Nantucket in its accurate position on all maps, guided ships' captains around local lurking shoals, and without doubt saved the lives of countless sailors who would have blindly steered their vessels straight to the dark sandy bottom of the Atlantic Ocean.

The current condition of the Meridian Stones is not one to be proud of. A crumbling monument doubtfully honors the man whose vision it represents. William Mitchell's Meridian Stones have seen much careless abuse by bypassers and long-term damage by island weather. They have been beaten by the passage of time, run over by carelessly driven vehicles, and weathered by the cold ocean fog. The Southern Meridian Stone is in the poorest of conditions. It has two iron posts beside it, and these would certainly throw off a compass needle (Figure 3). One post is on the stone's north side, the other on its south side. The iron posts were placed there, long after Mitchell erected the stone, to prevent cars from plowing into the stone itself. The post on the south side is, in fact, significantly bent towards the southern Meridian Stone. Are these encroaching iron bumpers the appropriate method of protecting the Meridian Stones, or do they simply represent a negligent public, a prevailing ambivalence to the stones, and a common disregard for the past scientific successes that shaped our world as we know it today? There are surely alternative and appropriate environmental modifications that would allow for William Mitchell's Meridian Stones to securely stand proud on the sidewalks of Nantucket as they first did nearly 200 years ago.

Figure 3

The Southern Meridian Stone

Note. The southern Meridian Stone stands on Fair Street between two iron bumpers. Photograph by N. Bohr, 2021.

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Wayne Twigg. “Baselines Inquiry,” [Personal communication], April 19, 2021.

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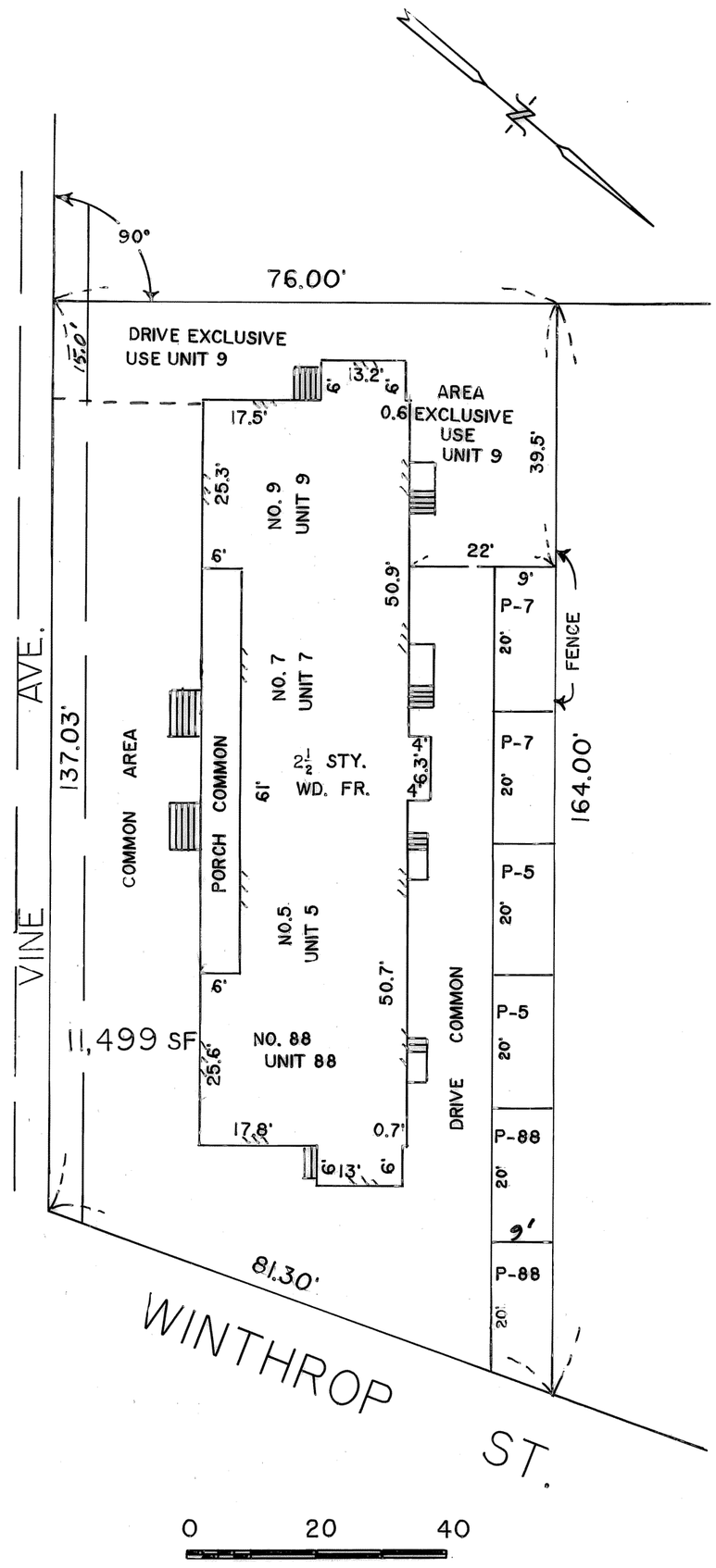
Magnetic North True North
"Town's Meridian Line"…
…runs from this (Northern) Meridian Stone to the Southern Stone, 289.2 feet up Fair Street. William Mitchell (1791-1869), Cashier of the Pacific Bank, astronomer and surveyor, father of Maria Mitchell (1818-1889), erected these Stones in 1840 to monitor the (varying) angle between the magnetic and true North.
This Meridian Line is one of the earliest of its kind in the country.
Nantucket Maria Mitchell Association
Pacific National Bank
Surveyors of Nantucket



REF. DEED BK. 67919 PG. 253
REF. L.C. PLAN 2083B

P-88 PARKING EXCLUSIVE USE UNIT 88
P-5 PARKING EXCLUSIVE USE UNIT 5
P-7 PARKING EXCLUSIVE USE UNIT 7

JOHN J. RUSSELL #49717 PROFESSIONAL LAND SURVEYOR
10-07-22

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ARE THE LINES DIVIDING EXISTING OWNERSHIP, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS PLAN FULLY AND ACCURATELY DEPICTS THE LOCATION AND DIMENSIONS OF THE BUILDINGS AS BUILT AND FULLY LIST THE UNITS CONTAINED THEREIN.

I ALSO CERTIFY THAT THE LOCATION OF THE BUILDINGS SHOWN ON THIS PLAN COMPLIES WITH THE BUILDINGS ZONING LAWS APPLICABLE AT THE TIME OF CONSTRUCTION. THE PREMISES SHOWN ON THIS PLAN ARE NOT WITHIN THE FLOOD HAZARD ZONE AS DELINEATED ON MAPS OF THE COMMUNITY.

JOHN J. RUSSELL, PLS — DATE 10-07-22

2023 00000001
Bk: 2023 Pg: 1 Page: 1 of 1
Recorded: 01/03/2023 10:29 AM
ATTEST: Stephen J. Murphy, Register
Suffolk County Registry of Deeds

2023
001

SITE PLAN
OF
88 WINTHROP STREET CONDOMINIUM
IN
WINTHROP, MASS.

SCALE: 1" = 20' OCT. 7, 2022

GLORAL ASSOCIATES: 9 BROADWAY ST.
WAKEFIELD, MA. 01880
TEL: 781-246-9345

2023-1

(3)

(3)

REFERENCES:
DEED:
7 DOWNER AVE.:
BOOK 64864 PAGE 342
11 DOWNER AVE.:
BOOK 59090 PAGE 32
PLANS:
PLAN 258 OF 2016
BOOK 1085 PAGE 305
BOOK 3596 PAGE 463
PLAN 743 OF 2005
CITY OF BOSTON LAYOUT
L–1413
L–4882
L–1251
CITY OF BOSTON SURVEY NOTEBOOKS
BOOK 1254 PAGE 132–135

2023 00000012
Bk: 2023 Pg: 12 Page: 1 of 1
Recorded: 01/18/2023 11:34 AM
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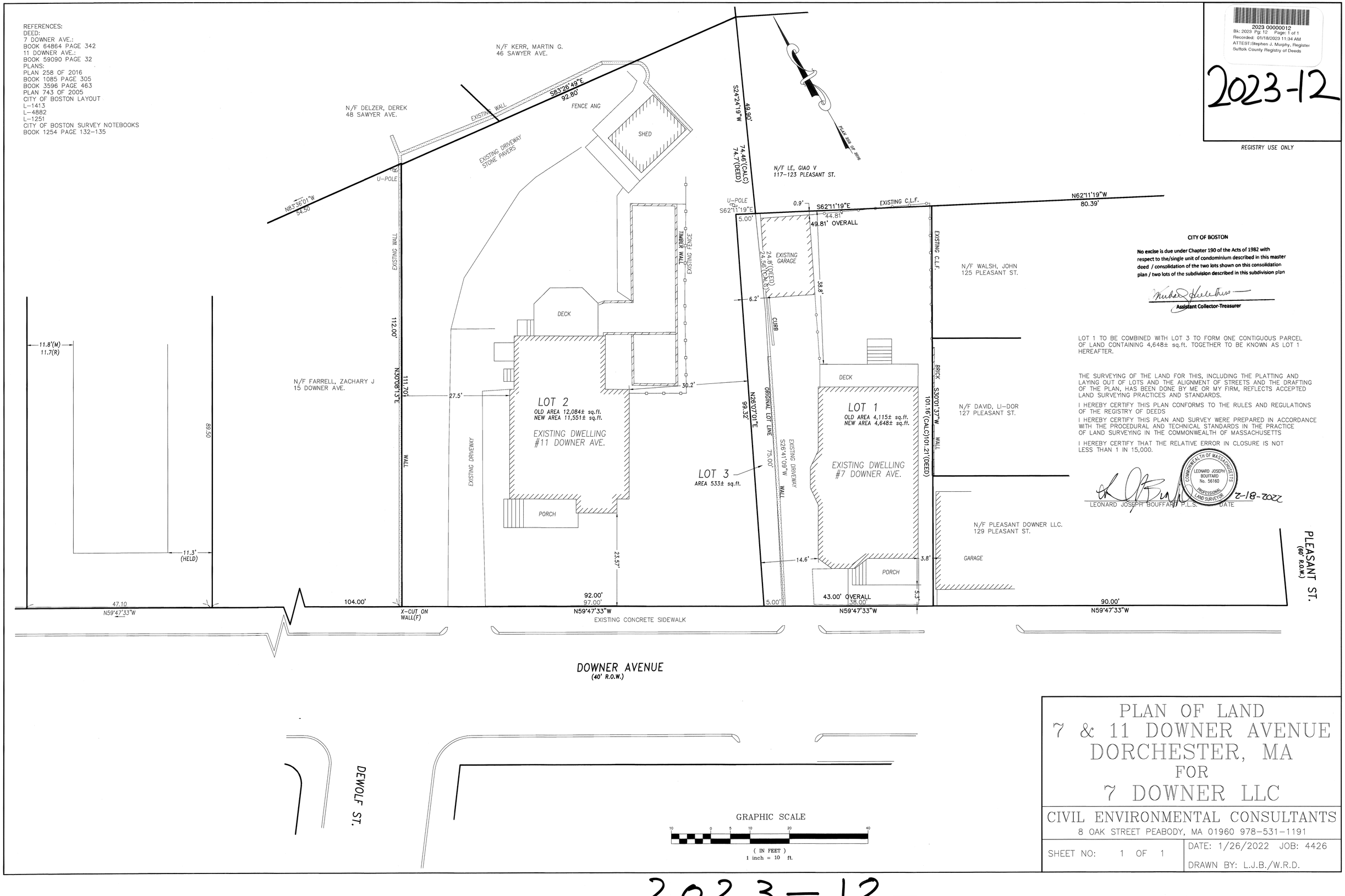
Suffolk County Registry of Deeds
2023-12
REGISTRY USE ONLY



GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

CITY OF BOSTON

No excise is due under Chapter 190 of the Acts of 1982 with respect to the/single unit of condominium described in this master deed / consolidation of the two lots shown on this consolidation plan / two lots of the subdivision described in this subdivision plan

Assistant Collector-Treasurer

LOT 1 TO BE COMBINED WITH LOT 3 TO FORM ONE CONTIGUOUS PARCEL OF LAND CONTAINING 4,648± sq.ft. TOGETHER TO BE KNOWN AS LOT 1 HEREAFTER.

THE SURVEYING OF THE LAND FOR THIS, INCLUDING THE PLATTING AND LAYING OUT OF LOTS AND THE ALIGNMENT OF STREETS AND THE DRAFTING OF THE PLAN, HAS BEEN DONE BY ME OR MY FIRM, REFLECTS ACCEPTED LAND SURVEYING PRACTICES AND STANDARDS.

I HEREBY CERTIFY THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS

I HEREBY CERTIFY THIS PLAN AND SURVEY WERE PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS IN THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS

I HEREBY CERTIFY THAT THE RELATIVE ERROR IN CLOSURE IS NOT LESS THAN 1 IN 15,000.

COMMONWEALTH OF MASSACHUSETTS
LEONARD JOSEPH BOUFFARD
No. 56160
PROFESSIONAL LAND SURVEYOR

LEONARD JOSEPH BOUFFARD P.L.S. DATE 2-18-2022

PLAN OF LAND
7 & 11 DOWNER AVENUE
DORCHESTER, MA
FOR
7 DOWNER LLC

CIVIL ENVIRONMENTAL CONSULTANTS
8 OAK STREET PEABODY, MA 01960 978–531–1191

SHEET NO: 1 OF 1

DATE: 1/26/2022 JOB: 4426

DRAWN BY: L.J.B./W.R.D.

2023-12

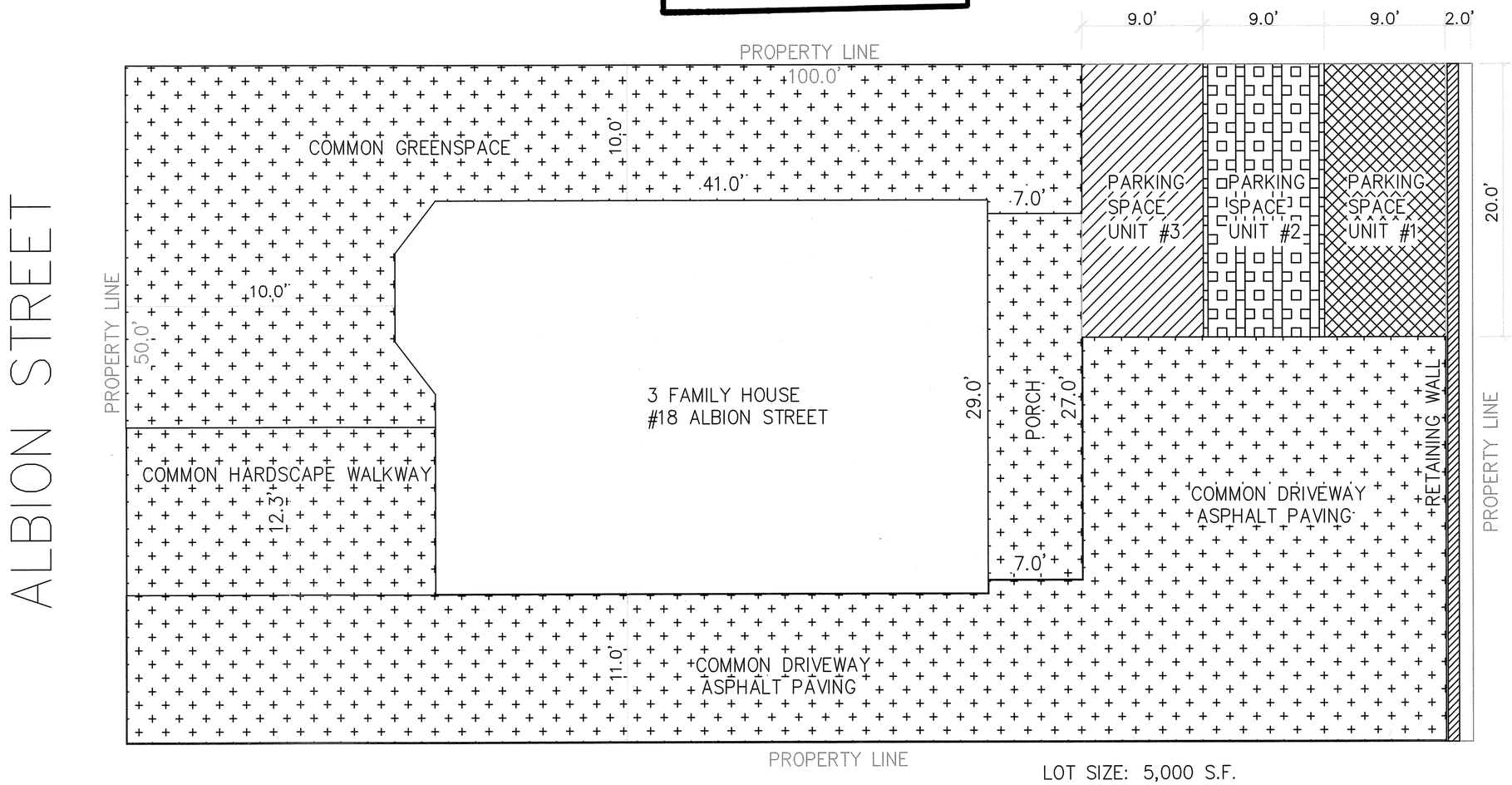
3

2023 00000026
Bk: 2023 Pg: 26 Page: 1 of 1
Recorded: 01/27/2023 02:08 PM
ATTEST:Stephen J. Murphy, Register
Suffolk County Registry of Deeds

2023-26

LEGEND

- COMMON AREAS
- PARKING SPACE #1 IS FOR THE EXCLUSIVE USE OF UNIT#1
- PARKING SPACE #2 IS FOR THE EXCLUSIVE USE OF UNIT#2
- PARKING SPACE #3 IS FOR THE EXCLUSIVE USE OF UNIT#3



LOT SIZE: 5,000 S.F.

SITE PLAN
SCALE 1"=10"

BAYASSOCIATES, INC.
1514 BLUE HILL AVE
BOSTON, MA. 02126
PH: 781-724-4214

PROJECT: 18 ALBION STREET CONDOMINIUM
ROXBURY, MA
PREPARED FOR: JOY BUILDER, LLC
PHONE: (617) 970-0478

No.	Revision/Issue	Date

Designed by L B
Drawn by D G
Checked by L B

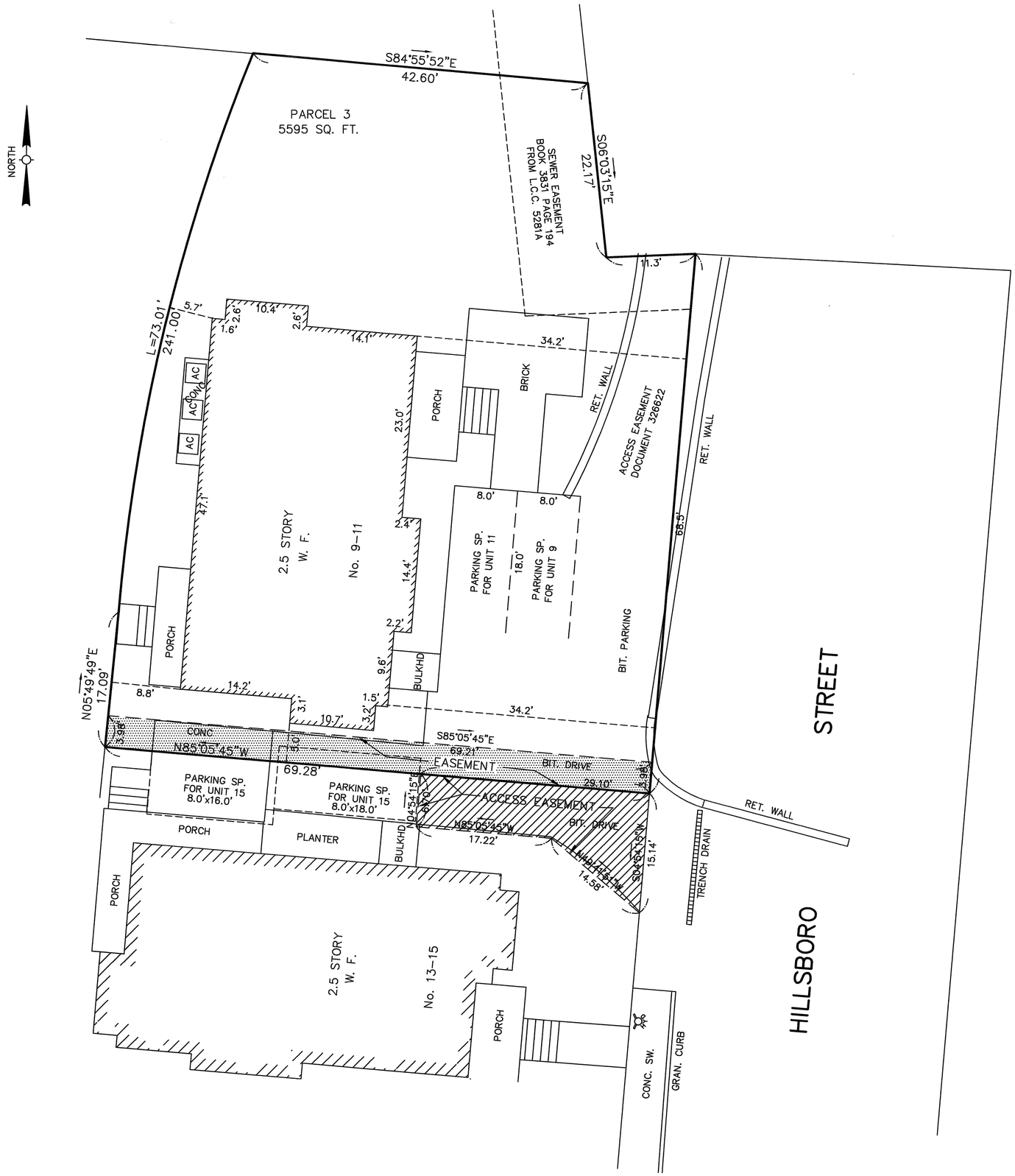
Project
Date 12/30/2022
Scale SEE PLAN
Sheet No. C-1

COMMONWEALTH OF MASSACHUSETTS
LUCKNER BAYAS
No. 35051C
REGISTERED PROFESSIONAL ENGINEER

2023-26

2023 00000048
Bk: 2023 Pg: 48 Page: 1 of 1
Recorded: 02/10/2023 12:33 PM
ATTEST:Stephen J. Murphy, Register
Suffolk County Registry of Deeds

2023
48



I CERTIFY THAT THIS PLAN OF "9–11 HILLSBORO STREET CONDOMINIUM" FULLY AND ACCURATELY DEPICTS THE LAYOUT OF THE BUILDING DIMENSIONS, PROPERTY LINES AND COMMON AREAS TO WHICH IT HAS ACCESS AS BUILT.

I CERTIFY THAT THE PROPERTY LINES SHOWN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW LINES FOR THE DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

COMMONWEALTH OF MASSACHUSETTS
ANTONI SZERSZUNOWICZ
No. 36394
REGISTERED PROFESSIONAL LAND SURVEYOR

SITE PLAN

9–11 HILLSBORO STREET
CONDOMINIUM

BOSTON, MASS.

SCALE : 1"= 10' *JANUARY 22 , 2023*

AGH ENGINEERING
166 WATER STREET *STOUGHTON, MA 02072*
PHONE: (781)344–2386

GRAPHIC SCALE

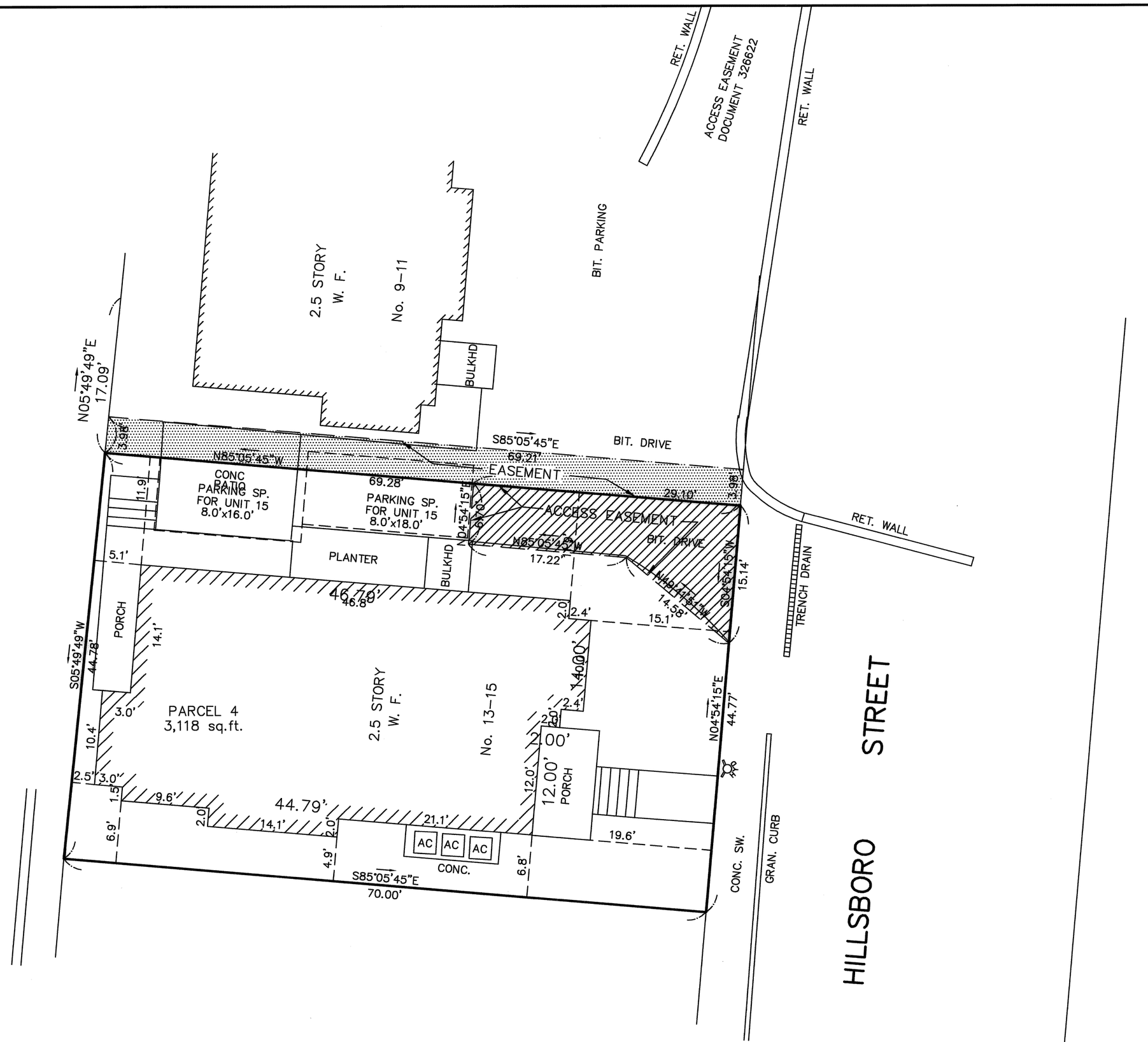
10 0 5 10 20 40

2023-48

2023 00000049
Bk: 2023 Pg: 49 Page: 1 of 1
Recorded: 02/10/2023 12:36 PM
ATTEST:Stephen J. Murphy, Register
Suffolk County Registry of Deeds

2023
49

(2)



I CERTIFY THAT THIS PLAN OF "13–15 HILLSBORO STREET CONDOMINIUM" FULLY AND ACCURATELY DEPICTS THE LAYOUT OF THE BUILDING DIMENSIONS, PROPERTY LINES AND COMMON AREAS TO WHICH IT HAS ACCESS AS BUILT.

I CERTIFY THAT THE PROPERTY LINES SHOWN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW LINES FOR THE DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

COMMONWEALTH OF MASSACHUSETTS
ANTONI SZERSZUNOWICZ
No. 36394
REGISTERED PROFESSIONAL LAND SURVEYOR

SITE PLAN

13–15 HILLSBORO STREET
CONDOMINIUM

BOSTON, MASS.

SCALE : 1"= 10' JANUARY 22 , 2023

AGH ENGINEERING
166 WATER STREET STOUGHTON, MA 02072
PHONE: (781)344–2386

GRAPHIC SCALE
10 0 5 10 20 40

2023 -49

(2)

250 CMR: BOARD OF REGISTRATION OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS

250 CMR 5.00: PROFESSIONAL PRACTICE

Section

5.01: Scope of Practice

All engineering work and all land surveying work is considered work of a professional nature and shall be performed in conformance with 250 CMR unless such work falls within an exemption set forth in M.G.L. c. 112, § 81R. Consistent with M.G.L. c. 112, § 81D, 250 CMR 5.00 does not apply to work performed by persons who operate, maintain or install machinery or equipment, or to persons licensed as engineers under M.G.L. c. 146.

(1) Engineering work may be performed only by a Professional Engineer or under the Direct Charge and Supervision of a Professional Engineer as described in 250 CMR 5.04.

(2) Land surveying work may be performed only by Professional Land Surveyor or under the Direct Charge and Supervision of a Professional Land Surveyor as described in 250 CMR 5.04.

(a) A Professional Engineer qualified in the Branch of civil engineering may also perform land surveying incidental to his or her engineering work relative to locating or relocating any of the Fixed-works embraced within the practice of civil engineering, but excluding the determination of property lines.

(b) The delineation of existing or proposed structures, features or Boundaries relative to property lines requires the determination of property lines and therefore must be performed by a Professional Land Surveyor.

(3) Engineering Registrants must restrict engineering practice to areas of competence based upon their education and experience qualifications.

(4) Land Surveying Registrants must restrict land surveying practice to areas of competence based upon their education and experience qualifications.

5.02: Professional Conduct

Each Professional Engineer and Professional Land Surveyor has an ethical duty to the public, the profession, and his or her clients.

In order to protect the health, property, and welfare of the public and to establish and maintain a high standard of integrity and practice in the professions of engineering and land surveying, the following Rules of Professional Conduct and all other applicable provisions of 250 CMR shall be binding on every Professional Engineer and Professional Land Surveyor. Failure to comply with 250 CMR, including the rules of professional responsibility in 250 CMR 5.02(1) through (5), or M.G.L. c. 112, §§ 61 to 65E and §§ 81D to 81T may constitute grounds for disciplinary action against the Registrant.

(1) Responsibility. A Registrant shall hold paramount the health, property and welfare of the public in the performance of the Registrant's professional duties.

(a) If the professional judgment of any Registrant is overruled under circumstances where the health, property or welfare of the public may be endangered, that Registrant shall notify the Registrant's employer, client or such other authority as may be appropriate.

5.02: continued

(b) A Registrant shall provide professional services that are truthful, based upon independent professional judgment, founded upon adequate knowledge of the issues, and based upon competence in the subject matter.

(c) A Registrant shall approve, sign or seal only those Instruments of Service that conform to 250 CMR and generally accepted engineering and land surveying standards.

(d) A Registrant shall not reveal facts, data or information obtained in a professional capacity, without the prior consent of the Registrant's employer except as authorized or required by law or regulation.

(e) A Registrant shall not permit the use of the Registrant's name or firm name nor associate in business ventures with any person or firm which the Registrant may have reason to believe is engaging in fraudulent or dishonest business or professional practices.

(f) A Registrant shall provide the Board with any information and assistance the Board may deem necessary for the investigation/prosecution of complaints filed with the Board.

(g) A Registrant shall provide the Board with honest and objective responses on Reference Questionnaires regarding an applicant's qualifications for registration.

(h) A Registrant shall provide written notification to other Registrants in the event of substantial disagreement with the work of the other. When appropriate, both Registrants shall investigate and attempt to resolve the disagreement collaboratively. The notified Registrant is required to respond in a timely manner to the Registrant giving notice.

(i) A Registrant shall not act in a manner or engage in a practice that brings discredit on the honor or dignity of the profession of engineering or land surveying.

(2) Competency.

(a) A Registrant shall practice only in areas of competence for which the Registrant is qualified by education and experience.

(b) A Registrant may accept work outside of his or her Licensed Branch of practice only to the extent that such services are restricted to areas of expertise for which the Registrant is qualified by education and experience to perform.

(c) A Registrant shall not take responsibility for work the Registrant is not competent by education or experience to perform, even if such work generally falls within a Branch in which said Registrant is registered.

(d) In the event that a Registrant practices outside his or her Licensed Branch of practice, the Registrant must be prepared to demonstrate to the Board's satisfaction his or her competence in that additional Branch of practice. Demonstration of competence to the Board shall include at a minimum records of specific education and experience obtained by the Registrant in that additional Branch of practice.

(e) A Registrant may affix the Registrant's Signature or seal only on Instruments of Service prepared by the Registrant or prepared under the Registrant's Direct Charge and Supervision.

(f) A Registrant shall stay current with theoretical, technological and practical developments within the Registrant's profession and maintain personal competency for acceptable practice throughout the Registrant's career.

(3) Public Statements. A Registrant shall issue public statements only in an objective and truthful manner.

(a) A Registrant shall issue no professional testimony that is inspired or paid for by interested parties unless the Registrant explicitly identifies the interested parties on whose behalf the Registrant is speaking and reveals any interest such parties have in the matters.

(b) A Registrant shall not attempt to injure, maliciously or falsely, the professional reputation, prospects, practice, or employment of other Registrants.

(4) Conflicts of Interest. A Registrant shall act professionally for each employer or client as a faithful agent and shall avoid conflicts of interest, or the appearance of conflicts of interests.

(a) A Registrant shall make full prior disclosures to the Registrant's employers or clients of potential conflicts of interest or other circumstances which could influence or appear to influence the Registrant's judgment or the quality of their services. The Registrant bears responsibility for maintaining documentation of compliance with this requirement.

5.02: continued

(b) A Registrant shall not accept compensation, financial or otherwise, from more than one party for concurrent services on the same project unless the circumstances are fully disclosed in writing to all interested parties.

(c) A Registrant shall not solicit or accept compensation, financial or otherwise, directly or indirectly, from contractors, vendors or other parties in connection with work for employers or clients for which the Registrant is responsible.

(5) Solicitation and Compensation. A Registrant shall avoid improper solicitation of professional employment.

(a) A Registrant shall not falsify or permit misrepresentation of the Registrant's own academic or professional qualifications, or those of the Registrant's associates.

(b) A Registrant may be disciplined for being found in violation of the state ethics law by the State Ethics Commission.

(c) A Registrant may request, propose or accept contracts for professional services on a contingent basis only under circumstances in which the Registrant's professional judgment would not be compromised and the contingency agreement is in writing and complies with 250 CMR 5.02(5)(e).

(d) Regardless of the negotiated compensation, the Registrant must provide services that comply with accepted professional standards.

(e) A Registrant shall establish clear and unambiguous contractual arrangements with clients. At a minimum, contractual arrangements must state a description of the proposed work, fees and expenses to be paid, and schedule for completion.

5.03: Professional Seal

(1) Format.

(a) Each person registered as a Professional Engineer in the Commonwealth shall use a professional seal that conforms to the designs approved and made available by the Board. The seal shall contain the following words: "Commonwealth of Massachusetts", the Registrant's name, the Registrant's registration number, and the words "Professional Engineer" and may include one’s Licensed Branch.

(b) Each person registered as a Professional Land Surveyor in the Commonwealth shall use a professional seal that conforms to the designs approved and made available by the Board. The seal shall contain the following words: “Commonwealth of Massachusetts”, the Registrant’s name, the Registrant’s registration number, and the words “Professional Land Surveyor”.

(2) The seal must be a symbol or image in the form of a rubber stamp, embossed seal or digitized seal (computer generated image), or other form approved by the Board. The outside diameter of the depicted image must be approximately one and one half inches.

(3) A Registrant shall affix his or her seal only to Instruments of Service produced by the Registrant personally or under the Registrant's Direct Charge and Supervision, except as provided in 250 CMR 5.03(4).

(4) A Registrant may review and adopt work started by or under another Registrant's Direct Charge and Supervision provided the adopting Registrant has performed a detailed and thoroughly documented review and will assume complete responsibility for the work of that previous Registrant.

(5) Under no circumstances shall a Registrant adopt the Work Products developed by unregistered persons who themselves were not working under the Direct Charge and Supervision of a Registrant.

(6) Any document bearing the Registrant's seal must also be appropriately dated and signed with either a legible hand written Signature adjacent to (not obscuring) the seal or a properly encrypted digital Signature, in compliance with 250 CMR .

5.03: continued

(7) The Registrant shall not affix his or her seal to stickers, decals, cards, stationery, advertising, or any other such material.

(8) The Registrant must take reasonable steps to prevent the Registrant's seal or digital Signature encryption key from being lost, stolen or out of the Registrant's personal possession or control.

(9) The Registrant shall not allow another person to use the Registrant's seal or digital Signature encryption key.

(10) A Registrant whose License has lapsed shall not use his or her professional seal.

(11) When a digital Signature is applied to an Instrument of Service, it must have an electronic authentication process attached to it that is uniquely associated with the Registrant, can be authenticated by the recipient, and is uniquely linked to the underlying documents in a manner that will invalidate the digital Signature if any part of the document is changed.

(12) A Registrant is responsible for all work on any plan that bears the Registrant's professional seal unless the Registrant expressly and properly limits the Registrant's responsibility as set forth in 250 CMR 5.03(13).

(13) If a Registrant does not take responsibility for all of the work on an Instrument of Service, the Registrant shall add any suitable comments near, but not through the seal to limit their responsibility. Such comments might limit responsibility to such things as electrical design, structural design, property boundaries, a specified portion of the document, or a specified change.

(14) A Registrant may assume responsibility for coordination of an entire project and sign and seal the Instruments of Service for the entire project, provided that the Instruments of Service for each technical segment are signed and sealed by the qualified Registrant who either prepared or directly supervised the preparation of said technical segment.

(15) A Registrant shall sign, date and seal instruments of service prepared by the Registrant, when those documents are filed with public authorities. If the Instrument of Service is a set of printed plans, each sheet must be individually signed and sealed and appropriately dated, unless otherwise authorized by statute.

5.04: Direct Charge and Supervision

A Registrant must exercise Direct Charge and Supervision over those persons assisting in the preparation of Instruments of Service. Direct Charge and Supervision requires at a minimum that:

(1) the Registrant exercised unambiguous decision-making authority with respect to the preparation of the Instruments of Service he or she sealed and signed, without interference or undue influence from any other individual or entity;

(2) the persons assisting in the preparation of the Instruments of Service were subordinates reporting directly to the Registrant rather than through some other person or entity capable of subverting the Registrant's direction;

(3) the Registrant had the freedom and authority to assign personnel, and to employ appropriate technologies and equipment for the preparation of Instruments of Service;

(4) the Registrant exercised due care in assigning tasks to persons assisting in the preparation of Instruments of Service based upon the Registrant's knowledge of each person's expertise, knowledge and skill levels;

5.04: continued

(5) the Registrant has a verifiable written record establishing that contributing work provided by unlicensed individuals was subject to regular and continuing Direct Charge and Supervision throughout the development process;

(6) the work performed by unlicensed individuals does not include approval of final designs or decisions; and

(7) the persons assisting the Registrant preparing the Instruments of Service had continuous access to and guidance from the Registrant throughout the development process.

5.05: Business Entities

A Business Entity may provide or offer to provide engineering or surveying services only if a registered engineer or land surveyor has management responsibility for that part of the business. In this context, such Registrant is referred to as the Registrant-in-charge.

The relationship between the Business Entity and the Registrant-in-charge must be characterized by the following:

(1) the Registrant-in-charge or a Registrant in his or her charge exercises Direct Charge and Supervision as set forth in 250 CMR 5.04; and

(2) the Registrant-in-charge is an active participant in the contracting, reporting, publishing, scheduling, *etc*. of professional services being offered by the Business Entity.

5.06: License Renewal

A Registrant is responsible for maintaining his or her License to practice in good standing by renewing the License as required by M.G.L. c. 112, § 81N and 250 CMR 5.06, by providing all information required by the Board, and by maintaining generally acceptable ethical, professional and business practices. This responsibility cannot be delegated to others. Practice under a License that has not been properly renewed is considered the unlicensed Practice of Engineering or Practice of Land surveying and may result in disciplinary action.

(1) A License is valid for a period ending June 30th of the next even-numbered year and requires renewal at that time. A License that is not renewed on or before the June 30th expiration date shall lapse.

(2) A Registrant shall apply for renewal of his or her License on or before the date the License will lapse. To apply for renewal of a License, a Registrant shall submit to the Board a completed License renewal application on a form prescribed by the Board and shall pay such fees for renewal of that License as may be established by the Executive Office of Administration and Finance pursuant to M.G.L. c. 7, § 3B.

(3) As a condition for renewal of his or her License, a Registrant must submit to the Board satisfactory proof that the Registrant is in compliance with statutory and regulatory requirements specified by the Board, including but not limited to, M.G.L. c. 62C, § 47A and § 49A, and 250 CMR 5.09.

(4) It is the responsibility of each Registrant to notify the Board of any changes in his or her address of record as well as to know the status of his or her License.

(5) Failure to receive renewal notification from the Board does not excuse the Registrant from responsibility for timely renewal.

(6) A Registrant with a lapsed License is no longer permitted to practice engineering or land surveying in the Commonwealth and the use of the Registrant's seal is prohibited.

5.06: continued

(7) A License may be renewed within two years of lapsing provided a renewal form is submitted along with the required fees, including the late fee.

(8) A License cannot be renewed if it has lapsed for more than two years. After the first two years, the former Registrant must file for reinstatement pursuant to 250 CMR 5.07.

5.07: Reinstatement of Lapsed License

An individual whose License has lapsed for more than two years may apply for reinstatement of his or her License by:

(1) Submitting a properly completed Reinstatement Application Form with the applicable filing fee;

(2) Demonstrating to the Board's satisfaction that nothing has occurred during the lapsed period which would justify the revocation of the Registrant's License under the provisions of M.G.L. c. 112, § 81P or any other applicable law;

(3) Demonstrating to the Board's satisfaction that the Registrant meets the current requirements for registration, which may include an oral interview/exam, submission of documentation, and the required written examinations; and

(4) Paying applicable late fees and renewal fees for missed licensing cycles as required by the Director of the Division of Professional Licensure.

5.08: Use of Title Engineer or Land Surveyor

No person, other than a Registrant holding a current License to practice in the applicable profession, shall advertise or hold themselves out as either a Professional Engineer or a Professional Land Surveyor, or use any other title to imply that they are qualified to practice engineering or land surveying in the Commonwealth, or in any other way hold themselves out as able to perform any of the Licensed Branches of engineering or land surveying.

250 CMR 5.08 shall not prohibit a person who is not registered/Licensed in Massachusetts but who holds a current License to practice in another state or Jurisdiction and who declares or otherwise qualifies his or her title in a manner that does not imply that the person is qualified to practice in Massachusetts (*e.g.*, "Professional Engineer, Kansas" would be acceptable).

5.09: Professional and Moral Character

(1) A Registrant shall provide the Board with written notification of any disciplinary action or restriction on practice imposed against any professional License, registration, certificate, or permit held by the Registrant by the applicable governmental authority of any state, territory or political subdivision of the United States or any foreign jurisdiction. Such notice must be received by the Board within 30 days of the effective date of said discipline or restriction.

(2) A Registrant shall provide the Board with written notification of the Registrant's conviction of any crime, including any misdemeanor or felony, other than a routine traffic violation, made by a court or any other adverse action by any state or federal agency. Such notice must be received by the Board within 30 days of said conviction or adverse action. Records of compliance with 250 CMR 5.09(2) shall be exhibited to the Board upon demand.

(3) For the purposes of 250 CMR 5.09(2), the term "conviction" means any of the following:
(a) a final judgment entered after a jury verdict of guilty or a judicial finding of guilty;
(b) a plea of guilty;
(c) a plea of *nolo contendere* (no contest); or
(d) any other plea or finding which is treated by the court as a plea or finding of guilty.

5.09: continued

The standards in 250 CMR 5.09(3)(a) through (d) shall apply regardless of the law of the jurisdiction in which the disposition occurred.

REGULATORY AUTHORITY

250 CMR 5.00: M.G.L. c. 112, §§84D through 81T.

NON-TEXT PAGE

250 CMR 6.00: LAND SURVEYING PROCEDURES AND STANDARDS

Section

All land surveying work is considered work of a professional nature and shall be performed in conformance with 250 CMR 6.00, commonly accepted standards of care and 250 CMR 5.00: *Professional Practice*.

The provisions of 250 CMR 6.00 shall be the minimum required for all surveys and shall take precedence over the less restrictive standards of other authorities or sources.

6.01: Elements Common to All Survey Work

250 CMR 6.00 describes requirements common to all types of survey work, including but not limited to such surveys as Boundary, topographic, construction layout, title insurance, and mortgage surveys.

(1) Presumptions.

(a) When engaged to provide Work Products, surveyors are presumed to be familiar with other generally accepted standards of care (*e.g.*, *National Map Accuracy Standards, Land Title Survey Standards*, land court standards) associated with that type of work and the surveyor's Work Products shall comply with those additional standards to the extent that such standards do not conflict with the provisions of 250 CMR.

(b) When integrating mapping products provided by others, such as photogrammetric mapping, LiDAR mapping, geographic information systems data layers and hydrographic mapping, the surveyor is presumed to have exercised due care in evaluating the provider's qualifications, establishing the product's conformance with mapping standards, and performing sufficient independent conformance checks.

(2) Measurements.

(a) Linear measurements shall be expressed in terms of the US Survey Foot or the Meter.

(b) The intended purpose of a Work Product shall dictate the accuracy and precision of the field measurements, the measuring equipment used and the manner of its use.

(c) Appropriate corrections shall be applied to measurements to minimize or eliminate systematic errors.

(d) Redundant observations shall be used to analyze Control measurements and when practical other measurement data, to assess the magnitude of errors associated with those measurements and to determine if the distributions of those errors are within acceptable tolerances.

(e) After elimination of blunders and a determination that the remaining errors are within acceptable tolerances, the survey Control shall be appropriately adjusted such that it conforms to known geometric conditions or other known constraints.

(f) For large and/or complex Control networks, the preferred method of analysis and adjustment shall be the statistically rigorous method of least-squares.

(3) Calibration.

(a) Measuring equipment must be calibrated to insure it continues to meet or exceed manufacturers' specifications and is capable of producing results in conformance with these standards.

(b) The timing of device Calibrations must be such that it can be demonstrated that the device was capable of performing up to the standards of 250 CMR 6.01(3) and manufacturers' specifications at the time the survey was performed.

(c) Appropriate calibration methods shall be employed that include the personnel who normally use the equipment and the accessory devices normally used with the equipment. These methods shall employ redundant measurement techniques capable of developing statistical tests, rather than simple direct comparisons.

(MA REG. # 1332, Dated 2-10-17)

6.01: continued

(d) Records of compliance with 250 CMR 6.00 shall be exhibited to the Board upon demand.

(4) Horizontal and Vertical Datums.

(a) Horizontal directions shall be tied to some known meridian. When magnetic meridians are used, the date and location where the meridian was observed must be provided.

(b) Horizontal coordinates, when provided, must be referenced to monuments or known and reproducible horizontal datums. The preferred horizontal datum is the Massachusetts Coordinate System North American Datum (NAD).

(c) Elevations, when provided, shall be referenced to a known vertical datum or to an assumed datum for which two monuments (bench marks) have been established. The preferred vertical datum is the current national vertical datum.

(d) Horizontal and vertical Control surveys for construction layout work shall be tied to all Boundary, easement or Regulatory Lines affecting the location of existing or proposed Fixed-works.

(5) Work Products. All deliverable Work Products depicting the survey shall contain the following types of information, except when the only Work Product delivered is on-the-ground markings:

(a) The client's name, the record owner's name, and location of the surveyed premises.

(b) The surveyor's full name, firm name, business address, seal, Signature, the date of the Work Product and, when appropriate, a revision date.

(c) Measured quantities shall be shown to a number of significant digits consistent with the accuracy and procedures used to obtain the measurements and appropriate for the item being described.

(d) The Work Product shall identify the survey's meridian by symbol, note its origin and orient the Work Product such that north is generally pointing in an upward direction.

(e) The Work Product shall provide ratio and graphic bar scales.

(f) When surveys are tied to an existing coordinate system, provide the basis for the ties and, if applicable, the combined scale factor needed to convert the reported distances back to ground measurements.

(g) Identify sources and techniques used to develop the mapping information shown, such as contours, site features, utilities, floodplains, wetlands, *etc.*

(h) For information obtained from a specific data layer in a geographic information system, land information system or mapping system, the survey Work Product shall identify the source and positional accuracy of features and/or attributes obtained from said layer.

(i) The standard for positional information shown on a survey or other Work Product shall meet the appropriate national map accuracy standard for the compilation scale of the Work Product.

(6) Archival Requirements. The surveyor shall maintain supporting documentation sufficient to demonstrate compliance with 250 CMR and to substantiate their findings in response to lawful inquiries long enough to meet applicable legal and regulatory requirements.

6.02: Survey Work Affecting Property Rights

250 CMR 6.02 describes those additional requirements applicable to all survey work associated with Boundary lines that affect property rights, existing or proposed, such as property lines, lease lines, easement lines, Jurisdictional Lines, Regulatory Lines, including the horizontal and vertical Control necessary to establish such lines.

Additionally, 250 CMR 6.02 applies to the marking or remarking of said lines on-the-ground and those Work Products that relate natural or manmade features to such lines.

(1) Precedence. To the extent that 250 CMR 6.02 may reiterate key aspects of the Laws of Evidence, the intent of 250 CMR 6.02 is to emphasize those aspects of the law, not to create a new standard that would modify or supersede the Laws of Evidence.

6.02: continued

(2) Presumptions.

(a) Surveyors are presumed to know the Laws of Evidence pertaining to the location of lines and are presumed to follow the Laws of Evidence when reproducing lines or creating new lines.

(b) Based upon equivalent bodies of Evidence and equivalent treatment of that Evidence, that Evidence should lead each surveyor to substantially equivalent determinations.

(c) When a surveyor agrees to locate a written conveyance, the surveyor also agrees to locate the conveyance in accordance with the laws regulating the interpretations of written conveyances.

(d) When new lines are being defined, those lines are presumed to be tied to Original Lines and/or original monuments authenticated in accordance with the Laws of Evidence.

(e) Historical documents that created Original Lines are presumed to have been based upon a survey, whether or not the survey was of a professional nature or was prepared by a lay person.

(f) When the development of a Work Product is based upon a prior survey, the resulting Work Product is presumed to comply with the provisions of these standards, regardless of the standard of care associated with the prior survey.

(3) Research. Record Evidence of public sources and known private sources shall be examined to sufficient depth and scope such that the surveyor is convinced:

(a) The current description of the subject property and all abutting properties have been identified and acquired.

(b) The plats and surveys describing the subject property and abutting properties have been identified and acquired.

(c) The Operative Document that created each line or point on the subject property, or the best available Evidence of that document, has been identified and acquired.

(d) Conflicting descriptions describing the common lines of the subject property and the abutting property have been identified and investigated.

(e) Scrivener's errors describing the subject property and the abutting properties have been identified and investigated.

(f) Appurtenances and/or encumbrances have been investigated when discovered through normal research procedures.

(g) The source and validity of Regulatory Lines affecting the subject property have been investigated, when applicable.

(4) Fieldwork. Physical Evidence shall be investigated to a sufficient depth and scope such that the surveyor is convinced:

(a) The physical Evidence necessary to base a conclusion has been identified and located.

(b) Any recognizable Evidence of occupation (*e.g.*, fences) has been identified and located at intervals sufficient to delineate the directions and distances of the primary lines and angles.

(c) The visible appurtenances and encumbrances to the subject property have been identified and located.

(d) Apparent encroachments onto the subject property or onto adjacent properties have been identified and located.

(e) Natural and manmade features crossing, near or within the subject property, that help identify the surveyed lines, have been identified and located.

(5) Computations and Analysis. In performing the analysis of the record and physical Evidence, the surveyor shall:

(a) Make interpretations of the record and physical Evidence and draw conclusions based upon the Laws of Evidence.

(b) Evaluate and use the Evidence based upon the original creating units of measurement, not in terms of modern units of measurements, unless a contrary intent is indicated by the Laws of Evidence.

(c) Assign no more weight or dignity to one recited point of a prior survey than any other recited point, unless a contrary intent is indicated by the survey.

(d) Test the mathematical integrity of record Evidence and use the results in a manner consistent with the Laws of Evidence.

6.02: continued

(e) Use computer software products responsibly by carefully examining output and making appropriate checks.

(f) Consider parol Evidence whenever the collected Evidence is insufficient to draw a conclusion and, when relied upon, consider obtaining affidavits.

(6) Monumentation. Lines shall be marked on-the-ground such that, in combination with the monuments recovered:

(a) Sufficient monuments exist to enable future surveyors to reliably reproduce the lines as surveyed, even if some of the referenced monuments are compromised over time. Referencing coordinates are not a substitute for setting physical monuments.

(b) The size, composition and material of newly set monuments shall:

1. Be sufficient to minimize the likelihood of disturbance due to acts by mankind or natural causes;
2. Be stable enough to adequately meet the accuracy standards of the survey;
3. Have a life expectancy of 25 years or more under normal circumstances;
4. Be detectable using generally employed surveying techniques; and
5. Be identifiable, with reasonable certainty, as having been set by a surveyor.

(7) Work Products. In addition to those elements common to all survey Work Products noted in 250 CMR 6.01, the following additional requirements are applicable to all Work Products classified under 250 CMR 6.02:

(a) Identify the current record owner of the subject parcel and all abutting parcels thereto by title reference.

(b) Delineate both directly and indirectly measured quantities describing surveyed lines and points with significant figure and decimal place values appropriate to commonly accepted accuracy requirements for such surveys and to provide an adequate means of accurately reproducing said lines or points.

(c) Report the area of each surveyed parcel in appropriate units of measure and number of significant digits to express the value accurately.

(d) Reference other pertinent surveys of record describing the subject premises and any abutting premises.

(e) Provide references to the key Evidence used to base conclusions.

(f) Delineate any Evidence of occupation material to the owner's title.

(g) Delineate visible Evidence of apparent appurtenances and encumbrances.

(h) Delineate visible Evidence of apparent encroachments by abutters onto the subject property and by the owner of the subject property onto adjoining properties.

(i) Clearly distinguish between monuments found and monuments set along with their physical composition and description, which includes their mathematical relationship to the property.

(j) Provide sufficient course and distance redundancy to allow testing for mathematical correctness for the outbounds of the subject property and each parcel contained within the subject property.

(k) Report the actual observed measurements (either directly and/or indirectly) that describe the Evidence appearing on the survey and parenthetically show record measurements for comparison, when appropriate.

(l) Provide a vicinity map or reference the subject property to well-known geographic features, such as street intersections, rivers, or railroads.

(m) Show the location of objects (*e.g.*, streams, fences, structures) that are informative as to the general location of the boundaries of the property.

REGULATORY AUTHORITY

250 CMR 6.00: M.G.L. c. 112, §§ 81D through 81T; c. 13, §45.

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BOARD OF REGISTRATION OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS ADVISORY

Approved April 28, 2022
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The purpose of this advisory is to clarify tasks that may be performed by Professional Land Surveyors ("PLS") and Professional Engineers qualified in the Branch of civil engineering ("PE (Civil)") in the Commonwealth of Massachusetts.

This advisory issued by the Board of Registration of Professional Engineers and Land Surveyors ("Board") seeks to clarify which common tasks are properly performed by the respective professions. Please note that this list is not exhaustive of tasks that may be performed by either profession. Further, please review all footnotes for any applicable limitations on the performance of any task by Professional Land Surveyors and Professional Engineers (Civil).

Nothing in this advisory shall be construed to waive or modify any applicable provisions of law or regulation or other obligations. It seeks only to provide guidance to licensees and the general public as to different tasks that may be performed by Professional Land Surveyors and Professional Engineers (Civil). The Board may modify this advisory periodically based upon any changes in the professions.

Task	PLS	PE (Civil)
Boundary Line Survey [1]	Yes	No
Topographic Survey	Yes	Yes [2]
Survey Control	Yes	No
Hydrographic Survey	Yes	Yes [2]
Property Descriptions	Yes	No
Drainage Design	No	Yes

Construction Layout	Yes	Yes [3]
Soil Evaluation for Septic System Design	Yes [4]	Yes [4]
Septic System Design	No	Yes
Highway Design	No	Yes [5]
Subdivision Design	Yes [6]	Yes [5]
Utility Service Design	No	Yes
Condominium Site and Unit Plan	Yes [7]	Yes [7]
As-Built Survey	Yes	Yes [8]
FEMA Elevation Certificates	Yes	Yes

[1] Per 250 CMR 2.09(3), a Boundary is "a legal demarcation between real property title or rights and includes but is not limited to proposed or existing property lines, Regulatory Lines, lease lines, easement lines, and Jurisdictional Lines."

[2] Professional Engineers (Civil) shall not perform a topographic or hydrographic survey if there is mapping which requires survey ground control; there is mapping that must comply with the Land Surveying Procedures and Standards set forth in 250 CMR 6.00 et. seq.; or if there are existing or proposed structures, features or Boundaries shown relative to property lines. All topographic surveys related to or featuring land boundaries or property lines must be performed by a Professional Land Surveyor.

[3] Professional Engineers (Civil) performing construction layouts must ensure that their work is in compliance with 250 CMR 5.01(2) and may not perform work that is related to the determination of property lines. "A Professional Engineer qualified in the Branch of civil engineering may also perform land surveying incidental to his or her engineering work relative to locating or relocating any of the Fixed-works embraced within the practice of civil engineering, but excluding the determination of property lines." 250 CMR 5.01(2)(a). "The delineation of existing or proposed structures, features or Boundaries relative to property lines requires the determination of property lines and therefore must be performed by a Professional Land Surveyor." 250 CMR 5.01(2)(b). See also M.G.L. c. 112, § 81D.

[4] Both Professional Land Surveyors and Professional Engineers must meet the criteria outlined in 310 CMR 15.017 to be approved as a Soil Evaluator prior to engaging in Soil Evaluations for Septic System Designs.

[5] Survey work which includes, but is not limited to, Boundary lines, lot lines, street lines, right of way lines, easement lines, and record plans, must be prepared by a Professional Land Surveyor.

[6] Grading, utility, and drainage design shall be prepared by a Professional Engineer.

[7] The condominium site plan must be prepared by a Professional Land Surveyor. Unit plans may be prepared by a Professional Engineer (Civil).

[8] Professional Engineers (Civil) preparing as-built surveys must ensure that their work is performed in compliance with 250 CMR 5.01(2)(a) and 250 CMR 5.01(2)(b). Pursuant to said regulations, "[a] Professional Engineer qualified in the Branch of civil engineering may also perform land surveying incidental to his or her engineering work relative to locating or relocating any of the Fixed-works embraced within the practice of civil engineering, but excluding the determination of property lines. The delineation of existing or proposed structures, features or Boundaries relative to property lines requires the determination of property lines and therefore must be performed by a Professional Land Surveyor." For further guidance, please see Board FAQ: Can a Professional Engineer (PE) certify a site plan or an as-built plan which references and/or utilizes a property line determination that was previously completed by a Professional Land Surveyor (PLS)?

Three (not so) New Ways to Get Into Trouble

Massachusetts Convention

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Part I: Public Trust Doctrine, Navigation & Titles

Six common classes of Dispute:

- 1. **Fee title to the bed of the watercourse.** Minerals Under the Lake/River Bed. *MORE RIGID*
- 2. **Right to navigate over the water.** Analogous to a public highway – watercourse for travel &commerce. *LESS RIGID*
- 3. **Right to Regulate the watercourse.** U.S.A.C.E., DENR, VMRC or other state or local agencies are commonly associated with disputes over regulation. *MORE FLEXIBLE*
- 4. **Extent of Admiralty Law.** Federal Regulation.
- 5. **Rights Incident to Riparian Ownership.** Wharf, Piers, Access to Navigable channel of major rivers or oceans.
- 6. **Ownership of the water itself.** The state owns the water, subject to a right of reasonable use by riparian adjoiners.

No Single Definition of the term "Navigable"

S.C.O.T.U.S.
U.S. v. Appalachian Elec. Power Co. (1)
311 U.S. 377 (1940)

- Although **navigability to fix ownership of the river bed or riparian rights** is determined as the cases just cited in the notes show, **as of the formation of the Union in the original states** or the admission to statehood of those formed later, …
- …navigability, **for the purpose of the regulation of commerce, may later arise.**
- An analogy is found in admiralty jurisdiction, which may be extended over places formerly nonnavigable.

S.C.O.T.U.S.
U.S. v. Appalachian Elec. Power Co. (2)
311 U.S. 377 (1940)

- The **legal concept of navigability embraces both public and private interests.**
- **It is not to be determined by a formula which fits every type of stream under all circumstances and at all times.**
- Our past decisions have taken due account of the changes and complexities in the circumstances of a river. **We do not purport now to lay down any single definitive test.**

SCOTUS: No Single Definition of Navigable (1)

Kaiser Aetna v. United States:
444 U.S. 164 (1979)

- The position advanced by the Government, and adopted by the Court of Appeals below, presumes that the concept of "navigable waters of the United States" has a fixed meaning that remains unchanged in whatever context it is being applied.
- While we do not fully agree with the reasoning of the District Court, we do agree with its conclusion that **all of this Court's cases dealing with the authority of Congress to regulate navigation and the so-called "navigational servitude" cannot simply be lumped into one basket.**

Fed.: No Single Definition of Navigable (1)

Boone v. United States:
944 F.2d 1489, 1499 (9th Cir. 1991)

- **Cases interpreting navigability cannot be "simply lumped into one basket,"** the Court stated, …
- …and "'any reliance upon judicial precedent must be predicated upon **careful appraisal of the purpose for which the concept of "navigability" was invoked** in a particular case.'"

Public Trust Doctrine: Early Decision

Public Trust Doctrine: Early Ruling (1)

Martin v. Waddell: 41 U.S. 367; 10 L. Ed. 997; 1842

For when the Revolution took place, **the people of each state became themselves sovereign**; …
…and in that character hold the absolute right to all their navigable waters and the soils under them for their own common use, **subject only to the rights since surrendered by the Constitution** to the general government.

Public Trust Doctrine: Early Ruling (2)

Martin v. Waddell: 41 U.S. 367; 10 L. Ed. 997; 1842

The dominion and property in **navigable waters,** and in the lands under them, being held by the king…
…**as a public trust, the grant to an individual of an exclusive fishery in any portion of it, is so much taken from the common fund** intrusted to his care for the common benefit.
In such cases, **whatever does not pass by the grant, still remains in the crown**
…for the **benefit and advantage of the whole community**. Grants of that description are therefore construed strictly

Public Trust Doctrine: Early Ruling (3)

Martin v. Waddell: 41 U.S. 367; 10 L. Ed. 997; 1842

although the **king is the owner of this great coast, and, as a consequent of his propriety,** hath the primary right of fishing in the sea and creeks, and arms thereof,
yet the common people of England have regularly a liberty of fishing in the sea, or creeks, or arms thereof, as a public common of piscary, and may not, without injury to their right, be restrained of it, unless in such places, creeks, or navigable rivers, where either the king or some particular subject hath gained a propriety exclusive of that common liberty."

What the Public Trust Doctrine Is—and Isn't

Cal.: What is the Public Trust Doctrine? (1)

Golden Feather Community Ass'n v. Thermalito Irrigation District, 209 Cal. App. 3d 1276 (1989)

- In this case we consider whether members of the public may assert the public trust doctrine in order to compel authorized appropriators of water from a nonnavigable stream to continue their diversion of water but forego their use of the diverted water in order to maintain an artificial reservoir for the recreational use of the public.
- We hold that the public trust doctrine does not apply in these circumstances.

NY.: What is the Public Trust Doctrine? (1)

Evans v. City of Johnstown, 96 Misc. 2d 755 (1978)

- The public trust doctrine has its origin in English law. The King held title to navigable waters and tidelands, subject to the rights held by the public of fishing and access for navigation.
- The **public trust doctrine in its original form** does not apply here.
- The only body of water involved in plaintiffs' cause of action is Cayadutta Creek, which is not a navigable waterway.

NY.: What is the Public Trust Doctrine? (2)

Evans v. City of Johnstown, 96 Misc. 2d 755 (1978)

- Plaintiffs cite ***Fletcher v Hylan (211 NYS 727),*** as a case where the public trust doctrine has been applied to public property other than water resources.
- Properly understood, that case does not involve the public trust doctrine.
- It concerns a city-owned radio station used for private purposes. It holds that city property can only be used for city purposes.

Fla.: What is the Public Trust Doctrine? (1)

Coastal Petroleum v. Chiles, 701 So. 2d 619 (1997)

- **The public trust doctrine is embodied in article X, section 11 of the Florida Constitution:**
- The title to *lands under navigable waters, within the boundaries of the state, which have not been alienated, including beaches below mean high water lines, is held by the state, by virtue of its sovereignty, in trust for all the people. Sale of such lands may be authorized by law, but only when in the public interest. Private use of portions of such lands may be authorized by law, but only when not contrary to the public interest.*

Fla.: What is the Public Trust Doctrine? (2)

Coastal Petroleum v. Chiles, 701 So. 2d 619 (1997)

- Although appellant correctly argues that the public trust doctrine does not preclude a party from asserting that state regulation has resulted in a compensable taking of an interest in property obtained from the state,…
- … **not all interests obtained from the state are entitled to the same constitutional protections.**

Massachusetts: Limits of the Public Trust Doctrine

Mass: Mean Low-Water Mark State (1)

Mad Maxine's Watersports, Inc. v. Harbormaster of Provincetown: 67 Mass. App. Ct. 804 (2006)

- "Under the public trust doctrine, **sovereigns hold shorelands in trust for the use of the public.**
- The Commonwealth, as successor to the colonial authorities, owns and controls lands seaward of the flats.
- These lands are held in trust by the Commonwealth to preserve the general rights of the public.

Mass: 'Trust', vs. Public Trust Doctrine (1)

Fafard v. Conservation Commission of Barnstable, 432 Mass. 194 (2000)

- Public trust doctrine. The Fafards argue that only the Commonwealth, or an entity to which the Commonwealth has delegated authority expressly, may act to further public trust rights.
- **Based on the history of the public trust doctrine, discussed infra, we agree.**
- The town, or the commission acting under the town's bylaw, may not claim authority under the public trust doctrine unless the Legislature has granted such authority expressly.

Mass: Trust, vs. Public Trust Doctrine (2)

Fafard v. Conservation Commission of Barnstable, 432 Mass. 194 (2000)

- When the Plymouth and Massachusetts Bay Colonies were settled, the Crown granted the title to and trusteeship of shore-lands in the colonies to the companies chartered to settle those colonies.
- One portion of these shorelands passed into private ownership when the colonial ordinance of 1647 granted ownership of the flats, or the lands between the high and low water marks, to private upland owners in order to provide incentives for private parties to build wharves and docks.

Mass: Trust, vs. Public Trust Doctrine (3)

Fafard v. Conservation Commission of Barnstable, 432 Mass. 194 (2000)

- The Commonwealth, as successor to the colonial authorities, owns and controls lands seaward of the flats.
- The waters and the land under [waters] beyond the line of private ownership are held by the State, both as owner of the fee and as the repository of sovereign power, with a perfect right of control in the interest of the public…

Mass: Trust, vs. Public Trust Doctrine (4)

Fafard v. Conservation Commission of Barnstable, 432 Mass. 194 (2000)

- We are aware that G. L. c. 91 generally is viewed as an encapsulation of the Commonwealth's public trust authority and obligations. …
- … Nevertheless, we treat the public trust doctrine separately because, as our discussion illustrates, the Commonwealth's authority and obligations under the statute are not precisely coextensive with its authority and obligations under the public trust doctrine.

Early Ordinances, Oceanfront & "Great Ponds"

Mass: Ordinance of 1641-1647 (1)
Commonwealth v. Alger, 61 Mass. 53 (1851)

- This is commonly denominated the ordinance of 1641; but this **date is probably a mistake.** It is found in the Ancient Charters, 148, in connection with another on free fishing and fowling, and marked 1641, 47.
- " Body of Liberties," which, there is evidence to believe, were **adopted and sanctioned by the colonial government in 1641, but were never printed entire** with the colony laws, although many of them were embodied in terms in particular ordinances.

Mass: Ordinance of 1641-1647 (2)
Commonwealth v. Alger, 61 Mass. 53 (1851)

- Sect. 2. Every inhabitant who is an householder shall have free fishing and fowling in any **great ponds, bays, coves and rivers, so far as the sea ebbs and flows** within the precincts of the town where they dwell, unless the freemen of the same town, or the general court, have otherwise appropriated them: provided, that no town shall appropriate to any particular person or persons, any great pond, containing more than ten acres of land, and that no man shall come upon another's propriety without their leave, otherwise than as hereafter expressed.

Mass: Ordinance of 1641-1647 (3)
Commonwealth v. Alger, 61 Mass. 53 (1851)

- Sect. 3. It is declared, that in all **creeks, coves, and other places about and upon salt water, where the sea ebbs and flows,** the proprietor, or the land adjoining shall have propriety to the low water mark, where the sea doth not ebb above a hundred rods, and not more wheresoever it ebbs further: provided, that such proprietor shall not by this liberty have power to stop or hinder the passage of boats or other vessels, in or through any sea, creeks, or coves, to other men's houses or lands.

Mass: Ordinance of 1641-1647 (4)
Commonwealth v. Alger, 61 Mass. 53 (1851)

- " Sect. 4. And for great ponds lying in common, though within the bounds of some town, it shall be free for any man to fish and fowl there, and may pass and repass on foot through any man's propriety for that end, so they trespass not upon any man's corn or meadow. [1641, 47.] "

Mass: Sales of Ponds Prior to 1641?? (1)
Hittinger v. Eames, 121 Mass. 539 (1877)

- By the law of Massachusetts, great ponds, not appropriated before the Colony Ordinance of 1647 to private persons, are public property, the right of reasonably using and enjoying which, for taking ice for use or sale, as well as for fishing and fowling, boating, skating, and other lawful purposes, is common to all, and in the water or ice of which, or in the land under them, the owners of the shores have no peculiar right, except by grant from the Legislature, or by prescription, which implies a grant.

Mass: Sales of Ponds Prior to 1641?? (1)

Inhabitants of West Roxbury v. Stoddard
89 Mass. 158, 7 Allen 158 (1863)

- That by the act of May 3,1636, the territory which includes Jamaica Pond was granted to the town of Roxbury ;
- That by this grant, and the authority conferred on towns by the act of March 3, 1635, (1 Col. Rec. 172,) as interpreted by the act of March 18, 1684, (5 Col. Rec. 470,) the fee of the land on which the pond lies, including the water of the pond, vested in that town…

Mass: Colonials had Limited Power (2)

Inhabitants of West Roxbury v. Stoddard
89 Mass. 158, 7 Allen 158 (1863)

- The " Body of Liberties " was the result of **an attempt to satisfy the people at large**, who desired something like a code of written laws as a protection and check upon the unlimited discretion of the magistrates; and …
- …at the same time to defer to the desire, on the part of some of the wiser and more prudent leaders of the colony, that many of **the most essential regulations which its condition required should obtain the force of law by usage and custom, making them a part of the common law,** rather than by express legislation, in order to **avoid any direct antagonism with the government in England.**

Mass: Limits of the Law (3)

Inhabitants of West Roxbury v. Stoddard
89 Mass. 158, 7 Allen 158 (1863)

- 1. Great ponds, containing more than ten acres, which were not before the year 1647 appropriated to private persons, were by the colony ordinance made public, to lie in common for public use.
- 2. This ordinance applied to all these ponds, whether at that time included within the territory granted to a town, or to any body of proprietors for the plantation of a town, or not then granted by the government of the colony, if they had not then been appropriated to particular persons…

Mass: Power to Regulate (4)

Inhabitants of West Roxbury v. Stoddard
89 Mass. 158, 7 Allen 158 (1863)

- 3. No possession adverse to the public right could be acquired or held by the town of Roxbury by means of any of the acts and votes set forth in the report.
- 6. The remedy for any unreasonable or excessive use of the liberty of cutting ice, being the violation of a public right, is by indictment; and the towns may regulate the use of the ponds by reasonable by-laws, adopted and approved according to the statute

Mass: Ordinance of 1641-1647 (1)

Hardin v. Jordan: 140 U.S. 371 (1891)

- The colonial ordinance of Massachusetts, adopted in 1641, provided that great ponds containing **more than ten acres of land**, and lying in common, though within the bounds of a town, should be free for fishing and fowling.
- As amended by the ordinance of 1647, it prohibited to towns from granting away great ponds, but affirmed their power to regulate the fisheries therein as well as in tide waters, and affirmed the power of the legislature to dispose of great ponds, tidal bays, coves and rivers, or of the common rights of fishing and fowling in them.

Mass: Ordinance of 1641-1647 (2)

Hardin v. Jordan: 140 U.S. 371 (1891)

- **These ordinances seem to have been the foundation of a local common law in Massachusetts (including Maine)** which has led to a course of decisions with regard to the title of lakes and ponds at variance with the general common law, and which have been followed in New Hampshire and some other States.
- It is there held that the land under water in such lakes and ponds belongs to the State, and not to the riparian owners; and that when land is conveyed bounding upon a natural lake or pond, the grant extends only to the water's edge

Significance of Fall Line

"Recreational Use"

Freshwater Streams & Rivers

Mass: Fresh-Water Rivers (1)
Ingraham v. Wilkinson, 21 Mass. 268 (1826)

- (headnotes)
- The proprietors of the banks of a river not navigable, own respectively the soil to the middle of the river.
- An island in a river not navigable, (not otherwise appropriated according to the rules of law,) if altogether on one side of the dividing line, or *filum aquae* belongs to the owner of the bank on that side; if in the middle of the river, it belongs in severalty to the owners of the banks on each side; and the dividing line will run in the same manner as if there were no island in the river.

Mass: Fresh-Water Rivers (2)
Ingraham v. Wilkinson, 21 Mass. 268 (1826)

- The material facts upon which we are to decide this case are, that the island in dispute between the parties is situated in Pawtucket river, where it is not navigable for ships or boats, and where the tide does not ebb and flow…

Mass: Fresh-Water Rivers (3)
Ingraham v. Wilkinson, 21 Mass. 268 (1826)

- And this depends altogether, we think, upon the **principles of the common law, there being no statute** of this commonwealth, or of the province, nor ordinance of the colony, which alters the common law in this respect, except in relation to the fisheries, …
- …which having from the beginning been made the subjects of legislative care, must be governed by such rules and regulations as the several legislatures have established.

Mass: Limited Right of Navigation (4)
Ingraham v. Wilkinson, 21 Mass. 268 (1826)

- The former invariably and exclusively belong to the public, unless acquired from it by individuals under grant or prescription.
- The latter are held to belong to those whose land borders on the waters ; so that they have the exclusive right of fishing in front of their own land, and have a property in the bed or soil of the river under the water, …
- …subject however to an easement or right of passage up and down the stream in boats or other craft for purposes of business, convenience, or pleasure.

Mass: Common vs. Civil Law Rules (5)
Ingraham v. Wilkinson, 21 Mass. 268 (1826)

- …an important difference between the common and the civil law, in regard to the rights of the public and individuals, on this subject.
- By the former …the right of the king or the public, is limited to those places, whether bays, coves, inlets, arms of the sea or rivers, in which the tide ebbs and flows, this being the definition of navigable waters ;
- whereas by the civil law, all rivers properly so called, even above tide waters, provided they are navigable by ships or boats, or perhaps any other floating vehicle, are considered as public property

Mass: Freshwater Rivers (1)
Trustees of Hopkins Academy v. Dickinson, 63 Mass. 544, 9 Cush. 544 (1852)

- It has been repeatedly settled, both in this state and in Connecticut, that the Connecticut River, though valuable for the purposes of boating and rafting, yet, so far as riparian proprietorship is concerned, is considered a river not navigable, as that term is used in the common law.

Mass: Freshwater Rivers (2)
Trustees of Hopkins Academy v. Dickinson, 63 Mass. 544, 9 Cush. 544 (1852)

- The general rule, as a rule of the common law of England, was long since laid down as unquestionable by Lord Holt, who says, …a river, of common right, belongs to the proprietors of the land between which it runs, to each that part nearest his land. This has been frequently, if not uniformly, adopted as the established rule.
- And the same rule has been repeatedly declared and adjudged in this commonwealth.

Mass: Freshwater Rivers (3)
Trustees of Hopkins Academy v. Dickinson, 63 Mass. 544, 9 Cush. 544 (1852)

- The general rule is recognized and established in this commonwealth, in the leading case of ***Ingraham v. Wilkinson, 4 Pick. 268.***
- It is a case which goes far to settle principles which must govern the present.
- **It recognizes the rule of the common law, that the property in the soil of rivers not navigable, subject to public easements, belongs to those whose lands border upon them…**

Mass: Common vs. Civil Law Rules (1)
Commonwealth v. Chapin, 22 Mass. 199 (1827)

- (headnotes)
- Rivers are considered navigable as far as the tide ebbs and flows, and not navigable above that point. So *held* in relation to Connecticut river.

Mass: Common vs. Civil Law Rules (2)
Commonwealth v. Chapin, 22 Mass. 199 (1827)

- It does not appear by the facts reported, or by the verdict, whether at the place where the dam is built the river is navigable or not; …
- …we may take it for granted, however, that the place is above the flowing and ebbing of the tide, and that being the case, it is not a navigable river there, within the meaning of the term navigable as understood by the common law.

Mass: Common vs. Civil Law Rules (3)
Commonwealth v. Chapin, 22 Mass. 199 (1827)

- The doctrine of Lord Hale, as laid down in his treatise De Jure Maris, has been approved of and adopted as the law of England, of New York, Connecticut, and of this commonwealth ; …
- …and he divides rivers into two classes, navigable and not navigable. They are considered navigable where the tide ebbs and flows, and not navigable above that point…
- We do not consider ourselves at liberty to depart from the common law in this respect

Mass: Limited Right to Navigate (1)
Brosnan v. Gage, 240 Mass. 113 (1921)

- She also had title to the bed or soil under the river, but subject "to an easement or right of passage up and down the stream in boats or other craft for purposes of business, convenience or pleasure."
- "... the property of the owners of the land on the banks of rivers is qualified, as well by the same common law itself, as by the ancient customs and legislation of our own government. The right of passage and of transportation upon rivers not strictly navigable, belongs to the public, by the principles of the common law."

Public Trust Doctrine in Massachusetts Law

Mass: Public Trust Doctrine History (1)
Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- Throughout history, the shores of the sea have been recognized as a special form of property of unusual value; and therefore subject to different legal rules from those which apply to inland property.
- At **Roman law**, all citizens held and had access to the seashore as a resource in common; in the words of Justinian, "they [the shores] cannot be said to belong to anyone as private property." ***Institutes of Justinian***

Mass: Public Trust Doctrine History (2)
Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- With the **collapse of the Roman Empire** and its ordered system of law, public ownership of tidal areas gave way to a **chaos of private fiefdoms.**
- Under the **English feudal law which emerged**, ownership of the shore was claimed by the Crown, which in turn had the power to grant out portions of its domain to the exclusive ownership and use of the private subjects who in fact possessed it.

Mass: Public Trust & Magna Carta (3)

Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- **After Magna Charta**, the competing interests were accommodated by a legal theory that divided the Crown's rights to shore land below high water mark into two categories:
- a proprietary jus privatum, or ownership interest, …
- …and a governmental jus publicum, by which the king held the land in his sovereign capacity as a representative of all the people.

Mass: Public Trust Doctrine History (4)

Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- The jus publicum was eventually understood to be under the control of Parliament, while the jus privatum belonged to the king.
- Since neither party held all the rights to the shoreland, neither could convey it with free and clear title into private hands.
- ***The Supreme Judicial Court frequently referred in its opinions to the notion that the Crown's ownership of shoreland, from which all Massachusetts titles historically derived, was "in trust, for public uses."***

Mass: Public Trust Doctrine History (5)

Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- The first English settlers of what is now Massachusetts **obtained their titles to land under grants from James the First and Charles the First**…
- …which passed to the organized companies chartered to settle Plymouth and Massachusetts Bay Colonies…

Mass: Public Trust Doctrine History (6)

Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- The jus privatum/jus publicum distinction in regard to shoreland property was carried over to the new world, …
- …so that the company's ownership was understood to consist of a jus privatum which could be "parcelled out to corporations and individuals ... as private property" …
- …and a jus publicum "in trust for public use of all those who should become inhabitants of said territory ...."

Mass: Public Trust Doctrine History (7)

Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- Owners of land bounded by the sea or salt water "could not, by such boundary, hold any land below the ordinary low water mark; for all the land below belonged of common right to the king."

Mass: Public Trust Doctrine History (9)

Boston Waterfront Development Corp. v. Commonwealth: 378 Mass. 629 (1979)

- For the purposes of commerce, wharves erected below high water mark were necessary.
- But the colony was not able to build them at the public expense.
- The government then to encourage these objects, and to prevent disputes and litigations, transferred its property in the shore of all creeks, coves, and other places upon the salt water, where the sea ebbs and flows, giving to the proprietor of the land adjoining the property of the soil to low water mark, where the sea does not ebb above one hundred rods")

Don't Re-Define the Public Trust Doctrine

NY: Not All Rivers are the Same…(1)

Douglaston Manor v. Bahrakis:
N.E.2d 201; 655 N.Y.S.2d 745; 1997

- Defendants, instead, urge a definitive landmark ruling from this Court, through the instrumentality of this case, that New York State has abandoned the common-law property distinction between rivers navigable-in-fact and those navigable-in-law.
- As a result, they claim a public right of fishery in all "navigable" waters.
- **This is not so and is too simplistic an approach**, which **would precipitate serious destabilizing effects on property ownership principles and precedents.**

Surprising Abuses of the Public Trust Doctrine Matthews. v. Bay Head

NJ Riparian – Public Beach Use (1)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- Chief Justice Kirkpatrick concluded that **all navigable rivers in which the tide ebbs and flows** and the coasts of the sea, including the water and land under the water, are **"common to all the citizens, and that each [citizen] has a right to use them according to his necessities, subject only to the laws which regulate that use**…
- Later, in ***Illinois Central R.R. v. Illinois, 146 U.S. 387, 453, 13 S.Ct. 110, 118, 36 L.Ed. 1018, 1043 (1892),*** the Supreme Court, in referring to the common property, stated that **"[t]he State can no more abdicate its trust over property in which the whole people are interested . . . than it can abdicate its police powers …"**

NJ Riparian – Public Beach Use (2)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- He observed that the public has a right to use the land below the **mean average high water mark where the tide ebbs and flows.** These uses have **historically included navigation and fishing.** In *Avon* the public's rights were extended "to recreational uses, including bathing, swimming and other shore activities… with ***Martin v. Waddell's Lessee… (1842)*** (indicating right to bathe in navigable waters). The **Florida Supreme Court has held**:
- The constant enjoyment of this privilege [bathing in salt waters] of thus using the ocean and its fore-shore for ages without dispute should prove **sufficient to establish it as an American common law right,**

NJ Riparian – Public Beach Use (3)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- **Extension of the public trust doctrine to include bathing**, swimming and other shore activities **is consonant with and furthers the general welfare.** The public's right to enjoy these privileges must be respected.
- **The mean or ordinary high tide is a mean of all high tides over a period of 18.6 years.**
- …**to exercise these rights guaranteed by the public trust doctrine**, the public must have access to municipally-owned **dry sand areas as well as the foreshore**. The extension of the public trust doctrine to include municipally-owned dry sand areas was necessitated by our conclusion **that enjoyment of rights in the foreshore is inseparable from use of dry sand beaches.**

NJ Riparian – Public Beach Use (4)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- In ***Avon*** we **struck down a municipal ordinance that required nonresidents to pay a higher fee than residents for the use of the beach.** We held that where a municipal beach is dedicated to public use, the **public trust doctrine** "dictates that the beach and the ocean waters must be open to all on equal terms and without preference and that any contrary state or municipal action is impermissible."
- … the Court depended on the public trust doctrine, impliedly holding that **full enjoyment of the foreshore necessitated some use of the upper sand**, so that the latter came under the umbrella of the public trust.

NJ Riparian – Private Beach Use (5)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- In ***Avon*** and ***Deal*** our finding of public rights in dry sand areas was specifically and appropriately limited to those beaches owned by a municipality.
- **We now address the extent of the public's interest in privately-owned dry sand beaches.** This interest may take one of two forms. **First, the public may have a right to cross privately owned dry sand beaches** in order to gain access to the foreshore.
- **Second, this interest may be of the sort enjoyed by the public in municipal beaches** under Avon and Deal, namely, the right to sunbathe and generally enjoy recreational activities.

NJ Riparian – Private Beach Use (6)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- **Exercise of the public's right to swim** and bathe below the mean high water mark **may depend upon a right to pass across the upland beach.**
- **Without some means of access the public right to use the foreshore would be meaningless.**
- To say that the public trust doctrine entitles the public to swim in the ocean and to use the foreshore in connection therewith without assuring the public of a feasible access route would seriously impinge on, if not effectively eliminate, the rights of the public trust doctrine.

NJ Riparian – Private Beach Use (7)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- **This does not mean the public has an unrestricted right to cross at will over any and all property** bordering on the common property. The public interest is satisfied so long as there is **reasonable access to the sea.**
- **The bather's right in the upland sands is not limited to passage.**
- Reasonable enjoyment of the foreshore and the sea cannot be realized **unless some enjoyment of the dry sand area is also allowed**. The complete pleasure of swimming must be accompanied by intermittent periods of rest and relaxation beyond the water's edge.

NJ Riparian – Private Beach Use (8)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- **Archaic judicial responses are not an answer to a modern social problem.**
- Rather, **we perceive the public trust doctrine not to be "fixed or static,"** but
- ...one to "be molded and extended to meet changing conditions and needs of the public it was created to benefit."

NJ Riparian – Private Beach Use (9)

Matthews v. Bay Head Improvement Association
95 N.J. 306; 471 A.2d 355; 1984

- Today, **recognizing the increasing demand for our State's beaches** and the dynamic nature of the public trust doctrine,
- …we find that **the public must be given both access to and use of privately-owned dry sand areas as reasonably necessary.** While the public's rights in private beaches are not co-extensive with the rights enjoyed in municipal beaches, **private landowners may not in all instances prevent the public from exercising its rights under the public trust doctrine. The public must be afforded reasonable access to the foreshore as well as a suitable area for recreation on the dry sand.**

Mass: Upland & Public Trust Doctrine (1)

Sheftel v. Lebel, 44 Mass. App. Ct. 175 (1998)

- *"But look! here come more crowds, pacing straight for the water, and seemingly bound for a dive. Strange! Nothing will content them but the extremist limit of land*
- *… No. They must get just as near the water as they possibly can without falling in. And there they stand — miles of them — leagues!*
- *Inlanders all, they came from lanes and alleys, streets and avenues — north, east, south, and west. Yet here they all unite. Tell me, does the magnetic virtue of the needles of the compasses of all these ships attract them thither?"*

Mass: Upland & Public Trust Doctrine (2)

Sheftel v. Lebel, 44 Mass. App. Ct. 175 (1998)

- The defendants in this case, John S. Lebel et al. (boatowners), who owned property close to but not on Prince Cove in Barnstable, were much like Melville's leagues of inlanders bent on reaching the water.
- They sought to extend their existing easement across lots bordering on Prince Cove owned by the plaintiffs, Elaine I. Sheftel and Nancy R. Meinken (landowners), to "the extremist limit of land," by constructing an elevated walkway and pier extending from the mean high water line to the mean low water line

Mass: Upland & Public Trust Doctrine (3)

Sheftel v. Lebel, 44 Mass. App. Ct. 175 (1998)

- We conclude that the judge's enlargement of the linear extent of the easement was unwarrantable, given the clarity of the instruments creating the easement.
- We accordingly reverse the judgment entered in favor of the boatowners, without addressing the issue of the permissible scope of use of the easement.

Mass: Upland & Public Trust Doctrine (4)

Sheftel v. Lebel, 44 Mass. App. Ct. 175 (1998)

- The most telling indication of the intended scope of the easement is seen in the deed descriptions uniformly describing the terminus of the easement across the landowners' lands as "mean high water."
- This language is particularly instructive when used in a Massachusetts deed, in light of the ancient and unique feature of Massachusetts land law which provides that every owner of land bounded on tidal waters, such as the landowners here, enjoys title to the shore and to the adjacent tidal flats all the way to the low water mark (or one hundred rods, whichever is less)

Mass: Upland & Public Trust Doctrine (5)

Sheftel v. Lebel, 44 Mass. App. Ct. 175 (1998)

- The public has, however, no right of perpendicular access across private upland property, i.e., no right to cross, without permission, the dry land of another for the purpose of gaining access to the water or the flats in order to exercise public trust rights; …
- …doing so constitutes a trespass.

Mass: Upland & Public Trust Doctrine (6)

Sheftel v. Lebel, 44 Mass. App. Ct. 175 (1998)

- Thus, an express easement such as the one at issue, granting the right to walk across the private dry land of another to reach the public trust area between the high and low water marks, was essential in order to make such access lawful. That was the manifest main purpose of the easement, not facilitating the boatowners' ability to walk from the upland to the low water mark.

Mass: Upland & Public Trust Doctrine (7)

Sheftel v. Lebel, 44 Mass. App. Ct. 175 (1998)

- There would have been no reason to extend the easement from the upland across the tidal flats for that purpose, because the boatowners were already afforded the right to cross over and utilize that area for boating as matter of law by virtue of the Public Trust Doctrine.

AZ.: 1987 Court ruling: (3)

Defenders of Wildlife v. Governor Hull:
199 Ariz. 411; 18 P.3d 722; 2001

- In 1987, the Arizona Legislature passed House Bill (H.B.) 2017, which attempted to relinquish most of the state's interest in Arizona's watercourse bedlands.
- **Parts of H.B. 2017 were determined to be invalid by this court under both the Arizona Constitution's gift clause and the public trust doctrine.**
- **Although the state had yet to determine the navigability of any watercourse** whose underlying bed was within the scope of H.B. 2017, in ***Hassell*** we found evidence in the record to support navigability.

AZ.: New Legislation 1992: (4)

Defenders of Wildlife v. Governor Hull:
199 Ariz. 411; 18 P.3d 722; 2001

- In response to *Hassell*, the Arizona Legislature passed legislation in 1992 (the 1992 Act) to once again address the state's claims to the land under Arizona's watercourses.
- As part of a comprehensive scheme to investigate and adjudicate the state's claims, the 1992 Act established the Arizona Navigable Stream Adjudication Commission
- The Commission would then issue a "final administrative determination" regarding navigability.

AZ.: Sequence of analysis: (8)

Defenders of Wildlife v. Governor Hull:
199 Ariz. 411; 18 P.3d 722; 2001

- The **concept of navigability is "essentially intertwined" with public trust discussions** and "the navigability question often resolves whether any public trust interest exists in the resource at all."
- …**before a state has a recognized public trust interest in its watercourse bedlands, it must first be determined whether the land was acquired through the equal footing doctrine.**
- … for bedlands to pass to a state on equal footing grounds, the watercourse overlying the land must have been "navigable" on the day that the state entered the Union.

Is there a legitimate Basis? (1)

Stevens v. Cannon Beach
510 U.S. 1207; (1994)

- The Supreme Court of Oregon found "a better legal basis" for affirming the decision and decided the case on an entirely different theory:
- "**The most cogent basis for the decision in this case is the English doctrine of custom.** Strictly construed, prescription applies only to the specific tract of land before the court, and doubtful prescription cases could fill the courts for years with tract-by-tract litigation. An established custom, on the other hand, can be proven with reference to a larger region.

Is there a legitimate Basis? (2)

Stevens v. Cannon Beach
510 U.S. 1207; (1994)

- "[A] State cannot be permitted to defeat the constitutional prohibition against taking property without due process of law by the simple device of **asserting retroactively that the property it has taken never existed** at all."
- Since **opening private property to public use constitutes a taking,** …if it cannot fairly be said that an Oregon doctrine of custom deprived Cannon Beach property owners of their rights to exclude others from the dry sand, then the decision now before us has effected an uncompensated taking.

Filled Tidelands & Titles

Mass: Filled Tidelands & Title (1)

Opinions of the Justices to the Senate: 383 Mass. 895 (1981)

- …any and all tidelands or submerged lands located within the city of Boston lying landward of the 1980 Line
- … "a. filled by private or public entities or persons pursuant to general or special legislation containing no express conditions restricting use; or
- …"b. filled by private or public upland landowners pursuant to authority contained in the Colonial Ordinances of 1641-1647 prior to the effective date of St. 1866, c. 149, requiring the licensing of any such fill; or

Mass: Filled Tidelands & Title (2)

Opinions of the Justices to the Senate: 383 Mass. 895 (1981)

- …"c. filled pursuant to licenses granted by the Board of Harbor Commissioners or its successor agencies pursuant to St. 1866, c. 149, …
- …"d. which have been both continuously filled and privately occupied for a period of twenty years beginning after the effective date of Revised Statutes, Chapter 119, Section 12 (effective April 30, 1836) and creating a twenty year statute of limitations affecting real estate interests of the commonwealth and ending before the effective date of St. 1867,

Mass: Filled Tidelands & Title (3)

Opinions of the Justices to the Senate: 383 Mass. 895 (1981)

- …"e. filled by the commonwealth or one of its agencies or political subdivisions or bodies politic and corporate pursuant to the provisions of general or special legislation, and thereafter, conveyed to private landowners either for consideration or without consideration?

Mass: Filled Tidelands & Title (4)

Opinions of the Justices to the Senate: 383 Mass. 895 (1981)

- The Boston Waterfront case involved the nature of the petitioner's ownership interest in a portion of Lewis Wharf lying below the historic low water mark.
- The Supreme Judicial Court held, with one of the five Justices on the panel dissenting, that the petitioner held title to the disputed area of the wharf in fee simple, but subject to the condition subsequent that it be used for the public purposes for which it was granted.

Mass: Filled Tidelands & Title (5)

Opinions of the Justices to the Senate: 383 Mass. 895 (1981)

- It should be noted that the Boston Waterfront case involved the owner's rights in submerged land (generally, land lying below the historic mean low water mark) and not in flats (land lying between the mean high water line and the mean low water line or a line 100 rods from the mean high water line, whichever is the lesser).

Mass: Filled Tidelands & Title (6)

Opinions of the Justices to the Senate:
383 Mass. 895 (1981)

- Further, it is obvious that the Boston Waterfront case concerned the consequences of the Lewis Wharf statutes, statutes which did not undertake by their express terms to transfer all the Commonwealth's or the public's interests in the disputed land to the petitioner's predecessors in title. Consequently, the court was not concerned with the right of the Legislature to surrender such interests if it so desired.

Mass: Filled Tidelands & Title (7)

Opinions of the Justices to the Senate:
383 Mass. 895 (1981)

- We do not read the Boston Waterfront decision as resting on the premise that the Legislature lacks the power under constitutional principles to transfer all the interests of the public and of the Commonwealth in tidelands.
- … acting consistently with appropriate limitations which we discuss subsequently, the Legislature has the power to transfer or relinquish the Commonwealth's and the public's interests in tidelands within the Commonwealth.

Mass: Filled Tidelands & Title (8)

Opinions of the Justices to the Senate:
383 Mass. 895 (1981)

- It appears, therefore, that the public interest in flats reclaimed pursuant to lawful authority may be extinguished, and, if deemed appropriate, the Legislature may act to declare that those rights have been extinguished so as to assure the marketability of title to such property.
- … Of course, until there has been a lawful filling of flats, the littoral owner owns them subject at least to the reserved public rights

Part II: Doctrine of Merger And Easements

Doctrine of Merger – General Significant questions to ask

- Has there been a true merger – is the nature of ownership coextensive?
- Is there a mortgage on one lot, but not the other?
- Are the properties in questions undersized or irregular lots in a residential or urban setting?
- Are there relevant State or local ordinances?
- Is the existence of an easement the primary issue?
- Are there other circumstances which might affect the boundary prior to the merger?
- Is this a Zoning issue or an Easement issue?

Mass: Doctrine of Merger – Early (1)

Ritger v. Parker, 62 Mass. 145, 8 Cush. 145 (1851)

- (Headnotes)
- *A right of way, appurtenant to land, over and upon adjoining land, is not extinguished by the vesting of both estates in the same person as mortgagee, under separate mortgages, until both mortgages are foreclosed.*

Mass: Doctrine of Merger (2)

Ritger v. Parker, 62 Mass. 145, 8 Cush. 145 (1851)

- The plaintiff insists, that even though such right did formerly exist by grant or prescription, for the owner of the estate now owned by the defendant, in and over the estate now owned by the plaintiff, such easement has been extinguished, by unity of title and possession of the two estates, in one and the same person at the same time.
- *She held both estates as mortgagee at the same time almost three years, but they were both defeasible estates, each on payment of a certain sum of money.*

Mass: Doctrine of Merger (3)

Ritger v. Parker, 62 Mass. 145, 8 Cush. 145 (1851)

- Was there, then, at any time such a unity of title and possession, at one and the same time, in both these tenements, as to merge and extinguish an easement, which one had over the other, either by grant or prescription ?
- …" To perpetuate the extinguishment incident to unity of possession, the estates thus united must be respectively equal in duration, and not liable to be again disjoined by the act of the law."

Mass: Doctrine of Merger (4)

Ritger v. Parker, 62 Mass. 145, 8 Cush. 145 (1851)

- An easement or servitude is a right, which one proprietor has to some profit, benefit, or beneficial use, out of, in, or over the estate of another proprietor.
- An owner of land, therefore, cannot have an easement in his own estate in fee, for the plain, and obvious reason, that in having the jus disponendi, — the full and unlimited right and power to make any and every possible use of the land,
- — all subordinate and inferior derivative rights are necessarily merged, and lost in the higher right.

Mass: Doctrine of Merger (5)

Ritger v. Parker, 62 Mass. 145, 8 Cush. 145 (1851)

- He may use every part of the surface for a way, if he chooses, and therefore has no occasion to claim any particular way; and so of every other use, to which land may be subjected. If, therefore, after such merger, the owner grants away a portion of his estate, it is the creation of a new estate, and not the revival of an old one.

Mass: Doctrine of Merger (6)

Ritger v. Parker, 62 Mass. 145, 8 Cush. 145 (1851)

- And although he may make a grant of that particular land, which formerly constituted one of the separate estates, which coalesced in him, yet it is not with its former incidents, unless it is done by force of the grant itself, by such words of description as could bring them into being by way of new grant.

NJ – Doctrine of Merger (1)

Denton v. Leddell:
23 N.J. Eq. 64; 1872

- No one can have an easement in his own lands; …
- …and **if an easement exists,** if the owner of the dominant or servient tenement acquire the other, the **easement is extinguished.**
- For an easement is a right in the lands of another.

Doctrine of Merger: Md. (1)

Capron v. Greenway: 74 Md. 289; 22 A. 269; 1891

- When the appellee acquired the McIntosh lot, and the one acre lot, he owned all the lots which bounded on the right of way,
- …and as thenceforth no one else could use that right of way without trespassing on the property of others to get to it, it was lawful for Greenway to discontinue it altogether, if he saw fit to do so.
- **He became the owner of the dominant and servient estates, and, there being no one else entitled to either, they were merged, and the mere easement was extinguished.**

Doctrine of Merger: Md. (1)

Kelly v. Nagle: 150 Md. 125; 132 A. 587; 1926

- **"An owner of land cannot have an easement in his own estate in fee,** for the **plain and obvious reason** that in having the jus disponendi, the full and unlimited right and power to make any and every possible use of the land, **all subordinate and inferior derivative rights are necessarily merged and lost in the higher right."**
- "For a man **cannot subject one part of his property to another by an easement,**
- …because **he cannot have an easement in his own property,** as the same object is obtained by him through the exercise of the general right of property."
- ***In Capron v. Greenway, 74 Md. 289, 22 A. 269, we held…***

Mass: Merger and Easements (1)

Busalacchi v. McCabe, 71 Mass. App. Ct. 493 (2008)

- Massachusetts courts have recognized the doctrine of merger at least since the mid-nineteenth century.
- The doctrine requires that a servitude terminates "when all the benefits and burdens come into a single ownership."
- A "servitude is a right, which one proprietor has to some profit, benefit, or beneficial use, out of, in, or over the estate of another proprietor."

Mass: Merger and Easements (2)

Busalacchi v. McCabe, 71 Mass. App. Ct. 493 (2008)

- When the dominant and servient estates come into common ownership there is no practical need for the servitude's continued existence, as the owner already has "the full and unlimited right and power to make any and every possible use of the land."

Mass: Merger and Easements (3)

Busalacchi v. McCabe, 71 Mass. App. Ct. 493 (2008)

- Two requirements must be present for the doctrine of merger to apply in Massachusetts.
- First, the unity of title between the affected parcels must be of "a permanent and enduring estate, an estate in fee in both," because "the merger of the easement …arises from that unlimited power of disposal." Id. at 147-148.
- The union of defeasible estates cannot extinguish servitudes by merger.
- ("unity of title does not exist when two separate mortgages on two parcels are held by one person")

Mass: Merger and Easements (4)

Busalacchi v. McCabe, 71 Mass. App. Ct. 493 (2008)

- Second, this unity of title only occurs when two ownership interests are coextensive.
- By coextensive, we mean that the type of ownership interest being united must be the same; …
- …a fee simple absolute interest, for example, cannot be merged with an interest in joint ownership to extinguish an easement.

Mass: Merger and Easements (5)

Busalacchi v. McCabe, 71 Mass. App. Ct. 493 (2008)

- ("When [owner] holds one estate in severalty and…a fractional part of the other, there is no extinguishment of an easement").
- ("easement will not be extinguished at common law where an intervening life estate prevents complete unity of ownership")

Mass: Merger and Easements (6)

Busalacchi v. McCabe, 71 Mass. App. Ct. 493 (2008)

- Although a subsequent conveyance of one of the commonly held parcels will not automatically revive the extinguished easement, the doctrine in no way precludes the common owner from recreating precisely the same easement by express reservation.
- …(owner may "grant any part of the soil with the former incidents, or…without former incidents").

Mass: Condominium Exception (7)

Busalacchi v. McCabe, 71 Mass. App. Ct. 493 (2008)

- Condominium ownership does not equate to either fee simple or joint ownership interests because it has its own "peculiar characteristics."
- Therefore, condominium ownership is not coextensive with fee simple absolute ownership. Because the ownerships are not coextensive, there was no unity of title that would have nullified Weisser's reservation of an easement, ab initio, when he declared his property a condominium.
- Thus, the doctrine of merger does not apply to the facts of this case; the easement has legal force.

Doctrine of Merger: Del. (1)

Smith v. Stanphyle: C.A. No. 579 K.C. (1978)

- The individual defendants have allegedly **persisted in crossing plaintiffs' lots in order to reach and learn their residence by short cut on the basis of a once existing easement**, …
- …which easement **was admittedly extinguished under the doctrine of merger when the defendants acquired title to both lots 2 and 3** of Green View Development, but which defendants have continued to use on the basis of a claimed prescriptive right or implied grant.

Doctrine of Merger: Del. (2)

Smith v. Stanphyle: C.A. No. 579 K.C. (1978)

- **Defendants admit that the extinguishment of such former easement has come to pass as a result of the unification,** as noted above, of the dominant and servient domains here involved, …
- …but that while they **concede that a formal easement over plaintiffs' lots no longer exists**, now take the position that they have the right to continue to sue such former easement on the basis of prescription or by implied grant.

Doctrine of Merger And Registered Lands

Mass: Merger & Registered Land (1)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- In this land use case, we are confronted with the clash of two basic principles.
- The first is that an owner may rely on information contained in a certificate of title for registered land.
- The second is that appurtenant easements are extinguished when the dominant and servient estates are merged.

Mass: Doctrine of Merger (2)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- …whether an **easement over nonregistered land**, **benefiting a parcel of registered land** and …
- …**listed on the certificate of title as an appurtenant right,** was nonetheless terminated by the doctrine of merger when the two parcels briefly came into common ownership.
- **We conclude that it was.**
- In that respect, we agree with the Land Court judge and affirm the judgment.

Mass: Doctrine of Merger (3)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- Their certificate of title lists the following easement rights over the parcel now belonging to Williams (the Williams parcel):
- (1) a right of way, (2) the right to take sand,
- (3) the right to build bog houses, and
- (4) the right to cut trees if they shade the cranberry bog.
- The Peck parcel is registered land; the Williams parcel is not.
- The registration decree for the Peck parcel is dated 1942 and also lists the easement rights.

Mass: Doctrine of Merger (4)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- Unbeknownst to the Pecks, the parcels had previously come under the common ownership of the Edgewood Trust (Edgewood) on April 30, 1976.
- Just four months later, on September 2, 1976, the land was again severed…
- Believing that they possessed a valid easement, the Pecks removed trees over 1.6 acres of the Williams parcel, in preparation for sand excavation.

Mass: Doctrine of Merger (5)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- Under the common-law doctrine of merger, **easements are extinguished "by unity of title and possession of the two estates** [the dominant and the servient], in one and the same person at the same time."
- "When the dominant and servient estates come into common ownership there is no practical need for the servitude's continued existence, as the owner already has 'the full and unlimited right and power to make any and every possible use of the land.'"

Mass: Doctrine of Merger (6)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- Once extinguished, easement rights cannot be "revived" merely by severing the dominant and servient estates.
- They "must be created anew by express grant, by reservation, or by implication."

Mass: Registration vs. Merger (6)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- The statute specifies some instances where land registration bars changes to title by certain common-law mechanisms, such as adverse possession, implication, or necessity; …
- …extinguishment of appurtenant easements by merger is not among them. See G. L. c. 185, ß 53

G.L.c. Section 53: Prescription, adverse possession or right of way by necessity

- *Section 53: Prescription, adverse possession or right of way by necessity*
- *Section 53. No title to registered land, or easement or other right therein, in derogation of the title of the registered owner, shall be acquired by prescription or adverse possession.*
- *Nor shall a right of way by necessity be implied under a conveyance of registered land.*

Mass: Doctrine of Merger (7)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- Additionally, G. L. c. 185, ß 77, provides that *"[r]egistered land, and ownership therein, shall in all respects be subject to the burdens and incidents attaching by law to unregistered land,"* and c. 185 shall not …
- *"change or affect in any way any other rights or liabilities created by law and applicable to unregistered land, except as otherwise expressly provided in this chapter."*
- Thus, extinguishment by merger is not included in the statute among the enumerated theories barred from application by the registration system. We regard this absence as significant.

Mass: Doctrine of Merger (8)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- As we did in Lasell College, supra, here we recognize another exception to the general rule that the holder of registered land can rely without any additional inquiry on the legitimacy of all provisions listed in the certificate.
- We agree with the Land Court judge that the registration system provides only those protections to registered land that are enumerated in the registration system's provisions.

Mass: Doctrine of Merger (9)
Williams Bros. v. Peck: 966 N.E.2d 860; (2012)

- …the administration of the land registration system is not equipped to examine the possibility that appurtenant easements may previously have been extinguished by merger when issuing a new certificate of title incident to a property transfer.
- In conclusion, we hold that common--law merger between a registered dominant parcel and unregistered servient parcel trumps appurtenant easements listed in the certificate of title.
- No evidence suggests that the easement was created anew after the merger.

Additional Examples Doctrine of Merger

NY: Doctrine of Merger (1)

Town of Pound Ridge v. Golenbock:
264 A.D.2d 773; 695 N.Y.S.2d 388; 1999

- It is well settled that a person cannot have an easement in his or her own land, since all of the uses of an easement are fully comprehended in his or her general rights of ownership
- It follows that the owner of the fee cannot create an easement in his or her own favor to exist during the time he or she is vested with the fee

NY: Doctrine of Merger (2)

Town of Pound Ridge v. Golenbock:
264 A.D.2d 773; 695 N.Y.S.2d 388; 1999

- Accordingly, the predecessors in interest of the defendants Thomas Ferrara and Philomena Ferrara, namely, Thomas J. LaMotte and Ursula LaMotte, …
- …could not have granted themselves an easement in Lot 129 for the benefit of Lot 60, which they too owned.
- Thus, the Supreme Court erroneously determined that an express easement existed.

Penn. : Doctrine of Merger (4)

Frick v. Wirt Company:
2 Pa. D. & C. 405; 1922

- **It is obvious** …that if the dominant and servient tenements become the property of the same owner, …
- …the exercise of the right, which in other cases would be the subject of an easement, is, during the continuance of his ownership, one of the ordinary rights of property only, which he may vary or determine at pleasure.
- **The inferior right of easement is merged in the higher title of ownership:**
- In the common law **it is said to be extinguished by unity of title.** In the civil law it is lost by 'confusion.'

Penn. : Doctrine of Merger (5)

Frick v. Wirt Company:
2 Pa. D. & C. 405; 1922

- But under both systems it is nothing but the name that is gone.
- The right remains, as before, under a higher title; and upon a subsequent severance of the estate, by alienation of part of it, the alienee becomes entitled to **all continuous and apparent easements which have been used by the owner during the unity of the estate,** …
- …and without which the enjoyment of the several portions could not be fully had; for no man can derogate from his own grant:"

New York – Doctrine of Merger (1)

Cowan v. Carnevale:
300 A.D.2d 893; 752 N.Y.S.2d 737; 2002

- **Notably, the general rule is that "a person cannot have an easement in his or her own land,"** …and, therefore, when both the dominant and servient estates are entirely owned by the same person, the easement is extinguished by the doctrine of merger
- Simply, under those circumstances, the easement serves no purpose because the owner may use either estate freely …

New York – Doctrine of Merger Exceptions (2)

Cowan v. Carnevale:
300 A.D.2d 893; 752 N.Y.S.2d 737; 2002

- Significantly, however, "merger is not effective, and an easement is not extinguished as a result of the merger, if the person owning both the dominant and servient estates only holds title to the servient tenement as tenant in common with another. He must own the entire title to both lots in fee if the easement is to terminate by merger"

New York – Doctrine of Merger Exceptions (3)

Cowan v. Carnevale:
300 A.D.2d 893; 752 N.Y.S.2d 737; 2002

- That exception provides that the …
- …"mortgagee of the dominant estate is protected from losing its interest in an easement otherwise extinguished when fee title to the dominant estate and fee title to the servient estate have been united in one fee owner"

Merger & Easements: Missouri (1)

Woodling v. Polk: No. ED102584. (2015)

- The general principle comes from this Court's decision in ***Ball v. Gross***, citing the **"universal rule" that "a man cannot have an easement over his own land."** ***565 S.W.2d 685, 688 (Mo. App. 1978).***
- This principle **most often comes into play when the two properties affected by an easement, the dominant and servient estates, are merged under common ownersh**ip and possession. In such a case, the easement is generally extinguished.

Merger & Easements: Missouri (2)

Woodling v. Polk: No. ED102584. (2015)

- However, **few cases discuss the reverse situation**, in which a **common landowner attempts to record an easement burdening one portion of his property for the benefit of another portion, usually in order to sell one of the portions.**
- Courts have likewise found that no easement is created because an owner cannot grant himself property rights he already possesses.
- …**owner's attempt to create easement failed because** ***"[s]o long as these lots belonged to the same owner, there could be no easement in favor of one lot, or servitude upon the other, for a man cannot have an easement over his own land…***

Missouri: Surveyors Best Practice: (3)

Woodling v. Polk: No. 473 S.W.3d 233; 2015

- Based on Missouri precedent, there are essentially **two options for a developer who desires to create easements over the land he or she will eventually subdivide and sell.**
- First, like any party creating an easement, a developer can **include the easement in the individual deeds conveying each lot,** each at the time title is severed.

Missouri: Best Practice: (4)

Woodling v. Polk: No. 473 S.W.3d 233; 2015

- Because the dominant and servient estates will not be lodged in the same person at that point, the deed will suffice to create the easement.
- Second, more specific to a developer's circumstances, he or she can create easements through a subdivision plat, which is a to-scale map of numbered lots, delineating streets, alleys, common areas, and any portions of land reserved for public purposes.
- As discussed below, easements contained in subdivision plats are routinely upheld by Missouri courts.

Missouri: Best Practice: (5)

Woodling v. Polk: No. 473 S.W.3d 233; 2015

- The best practice for developers is essentially to do both of these:
- (1) initially create easements in a recorded subdivision plat, and (2) then include identical easement language in each conveyance deed.
- This ensures buyers are alerted to the easements and ensures the easements are effectively created, exactly as intended, upon severance of title.
- Though there is no precise specificity requirement regarding the language creating an easement, it is best to be as specific as possible, which would include a metes and bounds description where feasible.

VA. Conservation easements & Merger (1)

The Piedmont Environmental Council v. Malawer
80 Va. Cir. 116; 2010

- **A conservation easement is a non-possessory interest** of a holder in real property, whether easement appurtenant or in gross a purpose of which is to preserve the historical, architectural and archeological aspects of real property. **Va. Code Ann. § 10.1-1009**. An **easement in gross** is an easement with a servient estate, but no dominant estate. It is an easement personal to the grantee.
- **It is evident from the discussion in Blackman that such easements are not subject to the typical common law analysis of merger** as would be appropriate to rights of way between two adjoining tracts.

VA. Conservation easements & Merger (2)

The Piedmont Environmental Council v. Malawer
80 Va. Cir. 116; 2010

- **Here, there never was the relationship of a servient to a dominant tract.** The clear intent of the parties was the creation of a detailed conservation easement in perpetuity, so as to protect the scenic value of the real estate for the general public.

Doctrine of Merger: Adverse Claims, Acquiescence & Fee Title

Merger & Boundaries: Colorado (1)

Salazar v. Terry: Colo. 911 P.2d 1086 (1996)

- The fence, which runs in a north-south direction, is located at the western boundary of the Terry Tract and at the eastern boundary of that portion of the Salazar Tract. **The deeds transferring both tracts of land consistently have referred to the government subdivision lines and not the fence** as the boundary.
- survey revealed that the deviation between the government subdivision lines and the fence varies anywhere from 100 to 160 feet along her property's western boundary. By Terry's reckoning, the fence is east of the government subdivision lines and is located inside the Terry Tract.

Merger & Boundaries: Colorado (2)

Salazar v. Terry: Colo. 911 P.2d 1086 (1996)

- In response, Salazar claimed adverse possession and asserted a counterclaim that the fence line was acquiesced in and recognized by the parties or their predecessors in title for twenty years under the terms of section 38-44-109, 16A C.R.S. (1982).
- …between November 3, 1977, and November 18, 1977, **Mills Ranches owned both the Salazar and Terry Tracts simultaneously for fifteen days. During this fifteen-day period, Jerry Mills, as sole stockholder and principal of Mills Ranches, was the common owner of both tracts.** As mentioned above, all these conveyances refer to the government subdivision lines.

Merger & Boundaries: Colorado (3)

Salazar v. Terry: Colo. 911 P.2d 1086 (1996)

- When a common owner acquires title to adjoining tracts, **any agreement as to division that had previously been made while the ownership was in two different persons ceases to exist or be effective**. . . .
- Moreover, a **division fence between two properties loses its legal significance when separate ownership of the parcels is merged** in one owner. . . .
- Consequently, the **common ownership** acquired by Mills Ranches in 1977 **nullified any significance the fence had previously** been accorded as a boundary between separately held parcels. Mills Ranches as a subsequent grantor **could therefore freely describe its conveyance by boundaries making no reference to the fence.**

Merger & Boundaries: Colorado (4)

Salazar v. Terry: Colo. 911 P.2d 1086 (1996)

- The common ownership of the two tracts of land eradicated the significance of any acquiescence as to the legal boundary existing prior to the period of common ownership as a matter of law.
- In practical effect, **once the common ownership destroyed the prior acquiescence** of the fence as boundary, **the twenty-year clock,** for purposes of the acquiescence statute, started ticking anew. *See § 38-44-109, 16A C.R.S. (1982).* **Similarly, the eighteen-year clock**, for purposes of adverse possession, also began again. See § 38-41-101(1), 16A C.R.S. (1982).

Merger & Easements: Colorado (5)

Salazar v. Terry: Colo. 911 P.2d 1086 (1996)

- Our conclusion is reinforced by the **doctrine of merger as it applies to extinguishment of easements.**
- Easements, such as a "right of way," burden one estate to the benefit of the other estate. The burdened estate is servient to the dominant estate which benefits from the easement.
- **When the dominant and servient estates come under common ownership, the need for the easement is destroyed.**
- Specifically, "if the owner of an easement in gross comes into ownership of an estate in the servient tenement, the easement terminates to the extent that the ownership of that estate permits the uses authorized by the easement."

Merger & Easements: Colorado (6)

Salazar v. Terry: Colo. 911 P.2d 1086 (1996)

- see also *Breliant v. Preferred Equities Corp., 109* ***Nev.*** *842, 858 P.2d 1258, 1261 (Nev. 1993)*
- ("**When one party acquires present possessory fee simple title to both the servient and dominant tenements, the easement merges into the fee of the servient tenement and is terminated.**");
- *Witt v. Reavis, 284* ***Ore.*** *503, 587 P.2d 1005, 1008 (Or. 1978)*
- ("**if at any time the owner in fee of the dominant parcel acquires the fee in the servient parcel not subject to any other outstanding estate, the easement is then extinguished by merger**") (emphasis in original).

Merger & Easements: Colorado (7)

Salazar v. Terry: Colo. 911 P.2d 1086 (1996)

- **Furthermore, the easement will not revive if the estates are separated** once again **"without the same type of action required to bring an easement into existence in the first place."**
- … ("upon severance, a new easement authorizing a use corresponding to the use authorized by the extinguished easement may arise;" however, it arises only "because it was newly created at the time of the severance").

Merger & Boundaries: Utah (1)

Orton v. Carter: 970 P.2d 1254; 1998

- Our holding above essentially disposes of this claim. It is true that **common ownership of adjoining properties, even for a brief season, restarts the clock for determining boundary by acquiescence.**
- ***See Salazar v. Terry, 911 P.2d 1086, 1089 (Colo. 1992)*** (en banc) (holding that two weeks of joint ownership was sufficient to disrupt the acquiescence [**11] time period).

Merger & Boundaries: Missouri (1)

Patton v. Smith: 171 Mo. 231; 71 S.W. 187; 1902

- But in addition to all this, there is one fact in this case that completely **dispels all shadow of title by limitation** in the defendant, to-wit:
- In **1883 Remelius became the owner of both tracts,** and the evidence shows that when some question arose thereafter as to the location of the survey line, he said it made no difference, inasmuch as he owned all the land on both sides of the line, wherever it might be.
- *[KK-continued]*

Merger & Boundaries: Missouri (2)

Patton v. Smith: 171 Mo. 231; 71 S.W. 187; 1902

- So that **even if the possession of Kennedy had been hostile** to Remelius, and …
- …even if Kennedy had intended to claim to the line established as the survey line by Banister, without regard to whether that was the true line or not, and…
- ...even if Kennedy and Remelius had agreed upon the line established by Banister, nevertheless…
- **when Remelius became the owner of both tracts of land, all such questions became immaterial;**

Merger & Boundaries: Missouri (3)

Patton v. Smith: 171 Mo. 231; 71 S.W. 187; 1902

- …there was **no adverse holding thereafter by Remelius as the owner of one tract against himself** as the owner of the other tract, and there was no longer any question of any agreed line dividing the two tracts. For as Remelius said **those matters had become immaterial by reason of his ownership of both tracts.**
- And so the matter remained for the five or six years that Remelius lived after he became the owner of both tracts, and so they remained during all the time his heirs owned the land.

Merger & Boundaries: Illinois (1)

Conklin v. Newman: 278 Ill. 30; 115 N.E. 849; 1917

- **It is undisputed** that during the time Benjamin Newman owned the west forty and Rice owned the east forty, Benjamin Newman owned and maintained the south half of this fence as appurtenant to the west forty.
- **When he acquired title also to the east forty, and thus became the owner of the whole eighty-acre tract,** the two portions of this **fence ceased to be appurtenant to any particular parts of the tract,** and …
- …any **agreement and division** that had theretofore been made while the ownership of the two forties was in different persons **ceased to exist or to be effective**.

Part III
Slander of Title

SC: Slander of Title & Surveyor (1)

Greene v. Griffith: Unpub. No. 2004-UP-056

- This case involves the **disputed ownership of real property**. George C. Greene, III and Molly F. Greene sought to prove they owned a disputed tract of land and that **Jack W. Griffith had slandered the title to their property** by **causing a plat to be recorded that showed Griffith as the disputed tract's owner**.

SC: Slander of Title & Surveyor (2)

Greene v. Griffith: Unpub. No. 2004-UP-056

- In 1984, the **Greenes purchased a lot known as 134** East Edgewater Park Drive in Charleston County by deed from Inez R. Bradham.
- In 1997, Griffith commissioned **BBBB** to **perform a survey of the Marsh Island property**. **BBBB prepared a plat (BBBB Plat) that showed a strip of highland** extending from the northeastern corner of Marsh Island **across the northern property line of the Greenes' lot, suggesting that a narrow twelve-foot strip of land on the eastern edge of the Greenes' lot was actually owned by Griffith.** The **BBBB** Plat was recorded.

SC: Slander of Title & Surveyor (3)
Greene v. Griffith: Unpub. No. 2004-UP-056

- In South Carolina, **slander of title has been recognized as a common law cause of action.** *See Huff v. Jennings, 319 S.C. 142, 148, 459 S.E.2d 886, 890 (Ct. App. 1995)*
- …(holding that, although the court was directly addressing a claim for slander of title for the first time in South Carolina jurisprudence, "**South Carolina law, through its incorporation of the common law of England, recognizes a cause of action for slander of title").**

SC: Slander of Title & Surveyor (4)
Greene v. Griffith: Unpub. No. 2004-UP-056

- To maintain a claim for slander of title, our courts have held "the plaintiff must establish
- (1) the **publication**
- (2) with **malice**
- (3) of a **false statement**
- (4) that is **derogatory to plaintiff's title** and
- (5) **causes special damages**
- (6) as a result of **diminished value** in the eyes of third parties."

SC: Slander of Title & Surveyor (5)
Greene v. Griffith: Unpub. No. 2004-UP-056

- This court held in *Huff v. Jennings* that "[i]n slander of title actions, the **malice requirement** may be satisfied by showing the publication was made in **reckless or wanton disregard of the rights of another, or without legal justification."**
- Significantly, we note Griffith admitted at trial that he owns no interest in the disputed strip of land and that he never thought he held any interest in that land.

SC: Slander of Title & Surveyor (6)
Greene v. Griffith: Unpub. No. 2004-UP-056

- Despite this admission, **Griffith testified that he instructed BBBB to prepare the plat** and stated, "I told [**BBBB**] that the tax office said I owned [the strip of land in question]."
- **BBBB testified that, when he prepared the plat, he had no evidence that Griffith had any ownership interest in the disputed strip.**

Slander of Title: West Virginia (1)
TXO v. Alliance: 187 W. Va. 457 (1992)

- This case **centers in the oil and gas development rights to 1,002.74** acres in McDowell County known as the "Blevins Tract."
- TXO approached Mr. Robinson with a much better offer. TXO offered to pay all of the drilling costs, pay 22 percent in royalties, and pay Alliance $ 20 per acre for its interest in the Blevins Tract. Mr. Robinson accepted what he considered to be such a "phenomenal offer."

Slander of Title: West Virginia (2)
TXO v. Alliance: 187 W. Va. 457 (1992)

- **Slander of title long has been recognized** as a common law cause of action. Indeed, the slander of title cause of action **was especially important 400 years ago**
- …**when many transfers of land were oral transfers** (i.e., feoffment with livery of seisin), and when, the Domesday Book notwithstanding, land records were much less complete than they are today.

Slander of Title: West Virginia (3)
TXO v. Alliance: 187 W. Va. 457 (1992)

- Later, in the 5th year of James I **(c. 1608)** the King's Bench also found for a plaintiff on a slander of title claim in *Earl of Northumberland against Byrt*, …the defendant **falsely said that the previous owner of the land in question had made a lease of it before his death.** The defendant also claimed that the lease had then been conveyed to him.
- The court found this **actionable as slander of title** and held for the plaintiff. Examining these cases, **it is clear** that an action for slander of title has been a **part of English common law for at least 400 years.**

Slander of Title: West Virginia (4)
TXO v. Alliance: 187 W. Va. 457 (1992)

- A **distinction between claiming title in oneself and claiming title in another** arises for a logical reason. Although we want to discourage people from slandering the title of others, **we do not want to discourage people from making legitimate** (though possibly weak) **claims of their own.**
- Therefore, we also **distinguish between** cases in which the **claimant legitimately raises questions** of title in himself and cases in which the claimant **raises his own claim without any reasonable grounds.**

Slander of Title: West Virginia (5)
TXO v. Alliance: 187 W. Va. 457 (1992)

- **From the Restatement, we can deduce the elements of slander of title:**
- **1. publication of**
- **2. a false statement**
- **3. derogatory to plaintiff's title**
- **4. with malice**
- **5. causing special damages**
- **6. as a result of diminished value in the eyes of third parties.**

SCOTUS: Slander of Title Appeal (1)
TXO Production Corp. v. Alliance Resources Corp., 509 U.S. 443 (1993)

- TXO first argues that a $10 million punitive damages award — an award 526 times greater than the actual damages awarded by the jury — is so excessive that it must be deemed an arbitrary deprivation of property without due process of law.

SCOTUS: Slander of Title Background (2)
TXO Production Corp. v. Alliance Resources Corp., 509 U.S. 443 (1993)

- TXO first advised Alliance of the "distinct possibility or probability" that its "leasehold title fails" in July 1985.
- In the meantime, despite its knowledge that any claim that the 1958 deed created a cloud on title to the oil and gas development rights would have been "frivolous,"
- TXO made two attempts to lend substance to such a claim.

SCOTUS: Slander of Title Background (3)
TXO Production Corp. v. Alliance Resources Corp., 509 U.S. 443 (1993)

- First, after unsuccessfully trying to convince Virginia Crews that it had an interest in the oil and gas, TXO paid the company $6,000 for a quitclaim deed conveying whatever interest it might have to TXO. **TXO recorded the deed without advising Alliance.**
- **Second, TXO unsuccessfully attempted to induce Mr. Signaigo to execute a false affidavit** indicating that the 1958 deed might have included oil and gas rights.

SCOTUS: Slander of Title Background (4)
TXO Production Corp. v. Alliance Resources Corp., 509 U.S. 443 (1993)

- On July 12, after having recorded the quitclaim deed, TXO wrote to Alliance asserting that there was a title objection and implying that TXO might well have acquired the oil and gas rights from Virginia Crews.
- It then arranged a meeting in August and attempted to renegotiate the royalty arrangement.

SCOTUS: Slander of Title Background (5)
TXO Production Corp. v. Alliance Resources Corp., 509 U.S. 443 (1993)

- When the negotiations were unsuccessful, TXO commenced this litigation.
- According to the West Virginia Supreme Court of Appeals, TXO…
- **"knowingly and intentionally brought a frivolous declaratory judgment action" when its "real intent"** was…
- **…"to reduce the royalty payments** under a 1,002.74 acre oil and gas lease," and thereby "increas[e] its interest in the oil and gas rights."

SCOTUS: Acted With Malice (6)
TXO Production Corp. v. Alliance Resources Corp., 509 U.S. 443 (1993)

- **TXO acted with malice.**
- This was not a case of negligence, strict liability, or respondeat superior.
- TXO was found to have committed, through its senior officers, the intentional tort of slander of title.
- The evidence at trial demonstrated that it acted, in the West Virginia Supreme Court of Appeals' words, through a **"pattern and practice of fraud, trickery and deceit"** and employed "unsavory and malicious practices" in the course of its business dealings with respondent.

NM: Slander of Title – Recording (1)
Chapman v. Varela, 144 N.M. 709 (2008)

- This Court has previously held that "slander of title occurs when one who, **without the privilege to do so, willfully records or publishes matter which is untrue and disparaging to another's property rights in land as would lead a reasonable man to foresee that the conduct of a third purchaser might be determined thereby."**
- In *Superior Construction, Inc. v. Linnerooth, 103 N.M. 716, 712 P.2d 1378 (1986)*, our Supreme Court established that "the filing of a lis pendens is absolutely privileged and cannot support an action for slander of title."

Massachusetts & Slander of Title

Mass: Slander of Title & Surveyor (1)
Erikson v. O'Brien, 362 Mass. 876 (1972)

- …defendant, a real estate broker employed as the plaintiff's nonexclusive agent to sell eighteen acres of land, procured a prospective buyer, …
- …that the plaintiff granted to the prospective buyer an option to purchase the land and an extension thereof, and that during the extended term of the option the defendant induced the prospective buyer not to exercise the option by claiming that the land contained only one or two acres of land and persuading a surveyor firm employed by the prospective buyer to show the lower figure on its survey plan.

Mass: Slander of Title Land Use (1)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- Complaint includes counts alleging fraudulent misrepresentation, negligent misrepresentation,…
- The Second Amended Complaint also includes a claim against Teare for slander of title.
- The background behind this unusual claim is that, …
- …four days prior to the closing, the registered land surveyor prepared a plot plan revealing that the driveway of Teare's neighbors, Stanley and Eileen Rusnak, sat on property owned by Teare.

Mass: Slander of Title Land Use (2)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- To resolve the concerns raised by this discovery, Teare's attorney prepared an agreement for the Rusnaks' signature declaring that the property had been encroached upon by the Rusnaks with the permission of Teare and had not been possessed adversely.
- The Rusnaks never signed this document and the Georges agreed to proceed to closing without it, albeit at a $5,000 reduction in the sales price.

Mass: Slander of Title Land Use (3)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- However, five days after the closing on the property, the Rusnaks approached Teare and asked her to sign a quite different affidavit, attesting that …
- …*"these encroachments by Rusnak and their predecessors in title have at all times since the date of my ownership been open, notorious, and adverse to my ownership."*
- Teare signed this affidavit.

Mass: Slander of Title Land Use (4)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- …an engineer retained by Teare brought in an environmental scientist who visited the property on June 25, 1996. The environmental scientist confirmed that wetlands existed on the property and delineated the boundary of the wetlands area with flags.

Mass: Slander of Title Land Use (5)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- On June 30, the Georges traveled from San Francisco to visit the property. Mr. George for the third time and Ms. George for the first.
- The Georges met with Teare, in the presence of Miller and Carpenter, and asked Teare whether there were wetlands present on the property and why an area of the yard was marked with flagged stakes.
- Teare told the Georges there were no wetlands on the property, and that the flags were placed there as part of the Title V test to delineate the boundaries of the leaching field.

Mass: Slander of Title Land Use (6)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- Teare and the brokers concede that Teare misrepresented the absence of wetlands, but contends that the Georges cannot demonstrate reasonable reliance on this representation…
- First, when Teare made the statement that there were no wetlands on her property (or soon thereafter), she knew that the Town's Conservation Administrator had concluded that there were wetlands on her property, yet she failed to ensure that this information was provided to the Georges.

Mass: Slander of Title Land Use (7)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- Third, it has long been established under Massachusetts law that the recipient of a misrepresentation is justified in relying on its truth even when he may have ascertained the falsity of the representation had he made appropriate inquiry.
- This is especially appropriate here where, if Teare had made no representation, the Georges may have made further inquiry on their own.

Mass: Slander of Title Land Use (8)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- The Slander of Title Claim
- A slander of title claim is essentially a claim of defamation where the false statement focuses on the plaintiffs' rights in property.
- As with any defamation claim, it requires a showing by the plaintiffs that (1) the defendant made a false statement, (2) which was published with malice, and (3) caused injury to the plaintiff.
- In this case, there is evidence sufficient to defeat summary judgment as to each of these elements.

Mass: Slander of Title Land Use (9)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- Since Teare permitted her attorney to prepare an agreement for the Rusnaks' signature declaring that the property had been encroached upon by the Rusnaks with the permission of Teare and had not been possessed adversely **only a few days before** Teare executed an affidavit declaring that "these encroachments by Rusnak and their predecessors in title have at all times since the date of my ownership been open, notorious, and adverse to my ownership," a factfinder could infer that the first statement, and not the second, was indeed the truth.

Mass: Slander of Title Land Use (10)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- There is also evidence in the record sufficient to establish malice, regardless of whether that element of malice is satisfied by a finding of negligence or ill will.
- A factfinder may infer from the evidence that Teare was displeased with the Georges after the closing as a result of their aggressive negotiations and successful demand for additional price concessions.
- Finally, there is evidence of injury resulting from the attorneys fees incurred to defeat the subsequent claim of adverse possession brought by the Rusnaks.

Mass: Slander of Title Exception (11)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- However, although Teare's statement may otherwise permit a claim of slander of title, it cannot here because her affidavit falls within the absolute privilege granted to statements made "in the institution or conduct of litigation or in conferences and other communications preliminary to litigation."

Mass: Slander of Title Exception (12)
George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- (statements made "prior to trial are absolutely privileged if they are made in the context of a proposed judicial proceeding"). The purpose behind this absolute privilege is manifest: the law does not want a witness to be affected by the threat of a civil defamation claim in providing full and accurate testimony or pre-trial disclosure.

Mass: Slander of Title Exception (13)

George v. Teare, 12 Mass. L. Rptr. 274 (2000)

- There can be no dispute here that the only reason for the Rusnaks' attorney to procure this affidavit from Teare was to use it in the event of actual or threatened litigation between the Rusnaks and the new owners—the Georges—over the ownership of the land beneath the Rusnaks' driveway.
- While no litigation was specifically planned at the time the affidavit was obtained, the possibility of litigation was contemplated and it was that possibility which caused the Rusnaks to obtain the affidavit in the event that possibility ripened into reality, which it did two years later.

Slander of Title: Virginia (1)

Lodal v. Verizon: 74 Va. Cir. 110; 2007

- An action for **slander of title requires**
- (1) the uttering and publication of the slanderous words by the defendant,
- (2) the falsity of the words,
- (3) malice,
- (4) and special damages."
- …"The action is not for the words spoken, but for the special damages for the loss sustained by reason of the speaking and publication of the slander."

Slander of Title: Virginia (2)

Lodal v. Verizon: 74 Va. Cir. 110; 2007

- In an action for slander of title the plaintiff "must show that the defendants **acted with malice or in reckless disregard of the truth** or falsity of the statement..."
- …**Malice is typically defined as a sinister or corrupt** motive such as **hatred, revenge, personal spite, ill will**, or a desire to injure the plaintiff.
- …Absent such motivations, **communications made with such gross indifference and recklessness** as to **amount to a wanton or willful disregard of the plaintiff's rights** may also constitute malice.

Slander of Title & the Surveyor

Cal.: Slander of Title (1)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- Defendants Gulf Oil Corporation, a property owner, and the Frouge Corporation, the developer of its codefendants' property, have appealed from a judgment which awarded the plaintiffs Glass, neighboring property owners, general and exemplary damages aggregating…
- … $ 11,500 for slander of title, together with attorneys' fees and costs, and which enjoined and restrained the defendants from trespassing on plaintiffs' property and from publishing any information which would indicate that plaintiffs' land was other than private property.

Cal.: Slander of Title (2)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- To the west of plaintiffs' property, defendants Gulf Oil Corporation and Frouge Corporation, planned to develop certain lands into a self-contained city to be known as "Marincello," a city capable of housing and serving a population of from 20,000 to 30,000.
- The model and master plan for Marincello appeared to depict plaintiffs' road and adjacent property as providing and being available to the public as a major access route, apparently (being on the same scale as the other major access routes) some 80 feet in width.

Cal.: Slander of Title (3)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- On June 17, 1965, plaintiffs filed a complaint, requesting damages for slander of title and also requesting injunctive relief prohibiting further false representations.
- They **alleged that defendants had falsely represented that plaintiffs' private road and adjacent property would provide and be available as a major access** road to the housing development planned by defendants.

Cal.: Slander of Title (4)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- Both sides acknowledge that the requisites for a cause of action for slander of title are…
- ***"One who, without a privilege to do so, publishes matter which is untrue and disparaging to another's property in land, chattels or intangible things under such circumstances as would lead a reasonable man to foresee that the conduct of a third person as purchaser or lessee thereof might be determined thereby is liable to pecuniary loss resulting to the other from the impairment of vendibility thus caused."***

Cal.: Maps and Plans (5)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- **…the plaintiffs' portion of Wolfback Ridge Road had not been dedicated for public use.**
- There is also evidence to show that the large maps and photographs of the model were exhibited at meetings of the Marin County Planning Commission on June 7 and 21, 1965; and that during the oral presentation by defendants' representatives **it was stated that the road in question would be available as an access to the project.**
- These maps similarly represented the situation concerning the access over plaintiffs' property; and **by scale depicted a road 80 feet wide.**

Cal.: General Statements? (7)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- The defendants **seek to avoid the thrust of this evidence** by categorizing their statements and graphic representations as **mere symbolic proposals** which suggest ways to plan access to the development.
- They also emphasize the testimony of their architect and of their engineer to the effect that the scale on the maps was not meaningful,
- By definition slander of title involves an absence of a privilege to publish the false and disparaging matter of which complaint is made.

Cal.: Protect Legitimate Interest (8)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- A rival claimant is privileged to disparage another's property in land, chattels or intangible things by an honest assertion of an inconsistent legally protected interest in himself.
- Moreover, the privilege only exists where the representations are made in good faith, and it cannot be asserted where there is actual or implied malice.

Cal.: Disparagement of Interest in land (9)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- A statement is disparaging if it throws any doubt upon the ownership of the property, not only by complete denial of the title, but by claim of some interest in it.
- Section 629 of the Restatement defines "disparagement" as follows:
- "Matter which is **intended by its publisher to be understood or which is reasonably understood to cast doubt upon the existence or extent of another's property** in land, chattels or intangible things, or upon their quality, is disparaging thereto, if the matter is so understood by its recipient."

Cal.: Disrupted a Specific Sale? (10)

Glass v. Gulf Oil:
12 Cal. App. 3d 412; 96 Cal. Rptr. 902; 1970

- "The most usual manner in which a third person's reliance upon disparaging matter causes pecuniary loss is by preventing a sale to a particular purchaser. . . .
- The disparaging matter may, if widely disseminated, cause pecuniary loss by depriving its possessor of a market in which, but for the disparagement, his land or other thing might with reasonable certainty have found a purchaser."

Mass: Slander of Title – History (1)

Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- Slander of title is a tort action, dating back to the 1600s, involving real property which redresses "interference with title to real estate by falsehoods which, although not personally defamatory, cause the plaintiff pecuniary loss through interference with . . . dominion over his property."
- Initially such cases involved oral aspersions cast upon the plaintiffs ownership of land, preventing the plaintiff from selling or leasing the land and later came to be known as "slander of title."

Mass: Slander of Title – History (2)

Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- Over time, the tort has evolved to include "written aspersions and the title to property other than land, and then to cover disparagement of the quality of property, rather than its title .. . many contemporary cases concern aspersions cast upon a commercial product."

Mass: Slander of Title – History (3)

Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- The Second Restatement defines injurious falsehood as follows:
- One who publishes a false statement harmful to the interests of another is subject to liability for pecuniary loss resulting to the other if…
- (a) he intends for publication of the statement to result in harm to interests of the other having a pecuniary value, or either recognizes or should recognize that it is likely to do so, and
- (b) he knows that the statement is false or acts in reckless disregard of its truth or falsity.

Mass: Slander of Title – History (4)

Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- in order to be liable for publishing an injurious falsehood, the party asserting the claim must present affidavits or other documents showing, or tending to show, that the statements made were both false and published in reckless disregard of the truth.

Mass: Slander of Title – Problem (5)

Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- This is a civil action arising out of damages allegedly sustained by the plaintiffs as a result of the cutting and removal of trees by the defendant on the plaintiffs' property. In addition to loss of trees, the plaintiffs also allege that the actions of the defendant have put a cloud on their title.

Mass: Slander of Title – Problem (6)
Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- Reckless disregard is said to exist when there is "a high degree of probable falseness" of the statement, or there are "serious doubts as to [its] truth."
- (To have acted with reckless disregard as to the truth of a statement, one must have entertained serious doubts as to the veracity of the published statement(s) or there must be obvious reasons to doubt its accuracy)

Mass: Slander of Title – Surveyor (7)
Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- Under this standard, the plaintiffs' have not submitted sufficient evidence to show that the defendant acted with reckless disregard for the truth when he recorded the subdivision plan produced by Land Planning, Inc. Land Planning, Inc., a professional land surveying company, was paid by the defendant to subdivide the land. No evidence has been submitted to show the defendant had any reason to believe the plans were prepared incorrectly.

Mass: Slander of Title – Unproved (8)
Salloom v. Lister, 18 Mass. L. Rptr. 165 (2004)

- Although it may be said that Swan Avenue appears exceptionally wide on the subdivision plan and that this fact should have been recognized by the defendant, proof of a reckless disregard for the truth requires a much greater showing.
- Therefore, the plaintiffs' have failed to demonstrate that the defendant acted in reckless disregard in recording the plan with the Registry of Deeds

Three More Ways to Find Trouble:
Common Scheme, Part Performance, and Tax Maps

Massachusetts Convention
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Welching is a problem: New York
Chimart Assoc. v. Paul: 66 N.Y.2d 570 (1986)

- However, this obviously recreates the very danger against which the parol evidence rule and Statute of Frauds were supposed to protect — **the danger that a party, having agreed to a written contract that turns out to be disadvantageous, will falsely claim the existence of a different, oral contract** …
- Procedurally, there is a "**heavy presumption** that a **deliberately prepared and executed written instrument manifest[s] the true intention of the parties**" *(Backer Mgt. Corp. v Acme Quilting Co., 46 N.Y.2d 211, 219, supra)*, and a correspondingly high order of evidence is required to overcome that presumption.

Statute of Frauds

- Introduced, in 1673, Enacted in England in 1677
- Generally requires transfer of some real property interest to be in writing.
- Generally applies to any rights in real property, including easements (Easements not subject to the statute in Virginia)
- Currently in force in 49 states (Exception: Louisiana)
- New Jersey statute now allows parol transfers in certain limited circumstances.

Statute of Frauds (1 of 2)
A Treatise on the Statute of Frauds 3rd Ed. Causten Browne Esq. Published by: Little, Brown & Co. 1870

- Mr. Brown points out that the **Statute of Frauds would probably have been unnecessary had the original methods of property transfer by livery of seisin been consistently applied.**
- For many years, due solemnity and a strict form of the ceremony for property transfer was generally confirmed by witnesses.

Statute of Frauds (2 of 2)
A Treatise on the Statute of Frauds 3rd Ed. Causten Browne Esq. Published by: Little, Brown & Co. 1870

- However, **as property transfers between middle class citizens became more common, the strict form for observation of the conveyance fell more often to attorneys appointed to the task**.
- While **some form of written record was generally kept before the advent of the Statute of Frauds**, the writing was already becoming the only dependable source of information. Ultimately, one formal ceremony was substituted for another formal ceremony.

Mass: Statute of Frauds & Easements (1)
Cater v. Bednarek, 462 Mass. 523 (2012)

- The plaintiffs, Gloria J. Cater and Willie J. Cater, own a parcel of land (Cater parcel) on a hill overlooking Cape Cod Bay in the town of Truro (town) with no frontage on any street.
- The parcel, however, has the benefit of an unspecified easement conveyed in an 1899 deed that provides a "right of way" to reach a nearby road.
- The judge recognized that the Caters and their predecessors in title had not sought to make use of the easement for ninety-eight years,

Mass: Statute of Frauds & Easements (2)
Cater v. Bednarek, 462 Mass. 523 (2012)

- As a result, the Land Court judge confronted an equitable dilemma: …
- …without an easement allowing construction of a roadway from the street to the Cater parcel, the plaintiffs could not build a home on the dominant estate, …
- …but any such easement would intersect a subdivided lot and diminish the value and enjoyment of a servient property.
-

Mass: Statute of Frauds & Easements (3)
Cater v. Bednarek, 462 Mass. 523 (2012)

- We also adopt the commentary in the Restatement that reflects the need for caution before modifying or extinguishing an easement by estoppel:
- *"These policies [of estoppel] conflict with the policies underlying the Statute of Frauds and recording acts which require that transactions designed to modify or terminate servitudes be evidenced by formal written instruments. Although the balance is struck in favor of preventing injustice, courts should be cautious in applying estoppel, particularly where the servitude in question is of substantial value to the dominant estate."*

NJ: Statute of Frauds "Tweak" (1)
Morton v. 4 Orchard: 827 A.2d 352; 2003

- Morton alleges that a binding oral contract was formed here.
- **Subsection b** represents the amendment that became **effective in January 1996**. L. 1995 c. 360 § 4.
- In Prant v. Sterling, … We held that "[b]y reason of this provision, the **acquisition of an interest in land may be established by parol evidence for the first time in modern history.**"
- In that case, the Chancery Division judge found that the report and recommendations of the New Jersey Law Revision Commission in 1991 were instructive, providing the following:

NJ: Statute of Frauds "Tweak" (2)
Morton v. 4 Orchard:827 A.2d 352; 2003

- The **circumstances surrounding** a transaction, the **nature of the transaction**, the **relationship** between the parties, their **contemporaneous statements and prior dealings**, if any, are all relevant to a determination of whether the parties made an agreement by which they intended to be bound.
- Thus, if the parties in question have been negotiating the sale of a multi-million dollar office building over many months through the exchange of a series of redrafted written contracts, it is unlikely that the parties intended to be bound other than in writing.

Ideal Invisible Boundary

Ideal Invisible Boundary: New York (1)
Wood v. Snider: 187 N.Y. 28; 79 N.E. 858; 1907

- Every person whose rights are unaffected by some statute, contract or prescription is entitled to the possession of his real property undisturbed and unmolested by others.
- Every man's land is in the eye of the law inclosed and set apart from another's either by visible and material fences or by an ideal, invisible boundary, and in either case every entry or breach carries with it some damages for which compensation can be obtained by action.

Trespass by Cattle: New York (2)

Wood v. Snider: 187 N.Y. 28; 79 N.E. 858; 1907

- By the common law it was as unlawful for the beasts of a neighbor to cross the invisible boundary line as it would be to overleap or throw down the most substantial wall.
- At common law every person was bound at his peril to keep his cattle within his own possessions, and if he failed to do so he was liable for their trespasses upon the lands of another whether the lands trespassed upon were in-closed or not.

Trespass by Cattle: New York (3)

Wood v. Snider: 187 N.Y. 28; 79 N.E. 858; 1907

- **The rule was not founded on any arbitrary regulation of the common law, but was an incident to the right of property.**
- **It is a part of that principle which allows every man the right to enjoy his property free from molestation or interference by others.**
- It is simply the recognition of a natural right.
- It pertains to ownership.

Mass: Enclosed by … What? (1)

Allen v. Holton, 37 Mass. 458, 20 Pick. 458 (1838)

- Where land is enclosed by a river, fence or road, and a disseisor occupies it as near to the river, fence or road as is convenient, reference being had to the nature and situation of the land, this may be, if such be the intention of the occupant, a possession of the whole lot, although there be a narrow strip by the river, fence or road not actually cultivated

Mass: Trespass Defined (1)

Cummings v. Forristall, 5 Mass. App. Div. 277 (1940)

- Trespass is defined by Bouviers Law Dictionary as "Any unauthorized entry upon the realty of another to the damage thereof" *Rawles Third Revision, Vol. 3, page 3316.*
- Sometimes an entry may be justifiable when the same is effected either by license or consent of the party or by license of law.

Mass: Trimming Bushes & Trespass (1)

Ronan v. Kuvin, 7 Mass. L. Rptr. 15 (1997)

- Prior to 1992, there was a hedge that ran along the property line. Over the course of many years, Ms. Ronan trimmed and pruned the hedge.
- However, at various times the Kuvins would trim that portion located on their side of the property line.

Mass: Trimming Bushes & Trespass (2)

Ronan v. Kuvin, 7 Mass. L. Rptr. 15 (1997)

- In July of 1992, the Kuvins installed a fence along the property line. When Ms. Ronan returned from vacation and saw the fence, she attempted to plant flowers adjacent to it.
- However, at the footing of the supporting post, she found rocks and cement encroaching on her land which interfered with her planting of the flowers.

Mass: Surveyors & Trespass (3)
Ronan v. Kuvin, 7 Mass. L. Rptr. 15 (1997)

- Both parties engaged land surveyors to establish the properly line.
- There currently are seven footings for posts along the fence which impinge upon the Ronans' property.
- The scope of encroachment is from .02 inches to a maximum of .63 inches.
- The defendants then caused holes to be dug for the footings for the posts. The width of the footing extends as previously noted over the property line and onto the plaintiffs' land.

Mass: Surveyors & Trespass (4)
Ronan v. Kuvin, 7 Mass. L. Rptr. 15 (1997)

- A trespasser is one who enters or remains on the land of another without a privilege to be there.
- To recover against a trespasser there need not be proof of damages.
- The owner or possessor is entitled to vindicate her rights for exclusive possession.
- **The fence itself sits on the line but the supports encroach causing an intrusion.**

Mass: Surveyors & Trespass (5)
Ronan v. Kuvin, 7 Mass. L. Rptr. 15 (1997)

- The fact that the defendants acted honestly and in good faith, only to discover that they were mistaken does not relieve them of having committed a trespass.
- They intentionally and knowingly did the final act which itself constituted a trespass.
- They installed the footings which was the final act culminating in a trespass on the plaintiffs' land.

Mass: Pruning and Trespass (6)
Ronan v. Kuvin, 7 Mass. L. Rptr. 15 (1997)

- The claim that the defendants trespassed by cutting the hedges on their properly does not constitute a viable tort. First, the property line as alluded to above is without width.
- Therefore, any shrub which was planted along the boundary line will eventually grow over the imaginary property line.
- The pruning of the shrubs by the Kuvins does not amount to a trespass as defined above.

Part II:
Significance of Tax Maps

How Many Lots?
(For What Purpose?)

- Taxation
- Subdivision Approval
- Easements on "All Side Boundaries"

Don't Forget – Tax Maps are NEVER wrong…???

Tax Maps and Title: New Jersey (1)

Harvey v. Orland Properties:
108 N.J. Super. 493; 261 A.2d 708; 1970

- The present tax maps ...of both Millstone and an adjoining township, Upper Freehold, indicate that about seven acres of the tract is in Upper Freehold. If, in fact, a portion of the tract was located in Upper Freehold, Millstone had no legal authority to assess taxes against it …
- If it were proven that the taxes could not have been assessed against a portion of the land, the tax sale certificate and the tax foreclosure judgment would not pass any interest in such portion of the land.
- However, **tax maps do not determine boundaries.** The Legislature establishes boundaries.

Tax Maps and Title: New York (1)

Watson v. Colwell: 2008 NY Slip Op. 30006(U)

- The essence of Plaintiffs' claim against the Movants is that Watson's property interests were damaged when Movants allegedly drew an erroneous boundary line on the tax maps.
- **As Movants point out, tax maps do not create, alter, or destroy the ownership of real property,** …
- **…and the maps in question carry an explicit warning that they are prepared for tax purposes only and are not to be used for surveying or conveyancing.**
- Real Property Tax Law § 503 [5] states …

Mass: How Did they Build Tax Maps? (1)

Andover Consultants, Inc. v. City of Lawrence:
10 Mass. App. Ct. 156 (1980)

- …certain required work, including "ground control and photography, manuscript preparation from photography,
- … aero triangulation, block bridging, calculations, research, platting of boundaries, final drafting of maps,
- …data card production and other reproduction," as well as optional work involving preparation of …
- …"Massachusetts coordinates for each lot, [location of] building designation symbol[s] on each lot, [provision for a] stereo reader for the use of the city [with] filing system, [and] maintenance after the first year."

Mass: How Did they Build Tax Maps? (2)

Andover Consultants, Inc. v. City of Lawrence:
10 Mass. App. Ct. 156 (1980)

- The plaintiffs, two corporations acting together in a joint venture, submitted a total bid of $178,950 for both aspects of the contract.
- The board of assessors, based on "cost, the in-house capability of the respective bidders, and compliance with the specifications," recommended to the mayor and city council that the contract be awarded to a Maine firm. The city council authorized the mayor to enter a contract with that firm for a price of $184,450.

Mass: How Did they Build Tax Maps? (3)

Andover Consultants, Inc. v. City of Lawrence:
10 Mass. App. Ct. 156 (1980)

- The parties are in agreement on the essential facts outlined above.
- On these facts, the sole legal question addressed to the judge below and to us is whether the award of this contract was subject to the competitive bidding provisions of G. L. c. 30, § 39M, which requires that contracts for the "construction, reconstruction, alteration, remodeling or repair of any public work" be awarded to the lowest responsible and eligible bidder.

Mass. Interactive Property Map (1)

massgis.maps.arcgis.com/apps/OnePane

- **DISCLAIMER: Assessor's parcel mapping is a representation of property boundaries, not an authoritative source.**
- **The authoritative record of property boundaries is recorded at the registries of deeds.**
- **A legally authoritative map of property boundaries can only be produced by a professional land surveyor.**

Tax Maps vs. Municipal Boundaries

Mass: Municipal Boundaries (1)

Stone v. City of Charlestown , 114 Mass. 214 (1873)

- As the public properly of counties is held for public use, the Legislature, when changing county boundaries, may itself divide among the counties the county property, or may intrust the division to the courts, and in doing so, need not provide for a trial by jury.

Significance of Tax Map: New York (1)

Watson v. Colwell: Docket Number: 0000251/2007

- The Complaint alleges that the Movants and other Defendants "did cause to be **created plaintiff's parcel** of land" (Trimber Affidavit Ex. A, para. 6) by…
- …**misrepresenting the location of the boundary line between Chemung and Schuyler Counties on tax maps.** Plaintiffs assert that in so doing, the Movants and other Defendants committed fraud and subjected Plaintiffs to economic loss and improper taxation.

Significance of Tax Map: New York (2)

Watson v. Colwell: Docket Number: 0000251/2007

- **Movants also seek dismissal** of the Complaint for failure to state a cause of action, **claiming that tax maps do not create, modify, or destroy the ownership of real property** and that the …
- …tax maps in question **carry a notation explicitly warning that tax maps are prepared for tax purposes only** and are not to be reproduced or used for surveying or conveyancing.

Significance of Tax Map: New York (3)

Watson v. Colwell: Docket Number: 0000251/2007

- The essence of Plaintiffs' claim against the Movants is that Watson's **property interests were damaged when Movants allegedly drew an erroneous boundary line on the tax maps.**
- **As Movants point out, tax maps do not create, alter, or destroy the ownership of real property,** and the maps in question carry an explicit warning that they are prepared for tax purposes only and are not to be used for surveying or conveyancing.

Significance of Tax Map: New York (4)

Watson v. Colwell: Docket Number: 0000251/2007

- **Real Property Tax Law § 503 states that "the preparation of tax maps in accordance with the provisions of this section shall not be deemed to be the practice of land surveying** within the meaning and intent of article one hundred forty-five of the education law."
- A tax map constitutes "nothing more than some evidence of the location of [a] property" …
- …and the location of a property as shown on a tax map does not raise a triable issue of fact as to the property's true location

Significance of Tax Map: New York (5)
Watson v. Colwell: Docket Number: 0000251/2007

- Thus, even if Plaintiffs are ultimately able to establish that the boundary line on the tax map in question was improperly drawn,…
- … **no effect on Plaintiffs' title to the underlying parcel of land would result.**

Mass: Municipal Boundaries (1)
Freeman v. Kenney, 32 Mass. 44, 15 Pick. 44 (1833)

- The jury have determined that the plaintiff's residence and estate were in Wellfleet.
- And although the recent perambulation of the line between the towns of Well fleet and Truro had thrown the plaintiff's home and estate in the latter town, …
- …yet this was only prima facie evidence of the line, and, we are satisfied, was shown to be incorrect by more potent evidence.

Mass: Municipal Boundaries (2)
Freeman v. Kenney, 32 Mass. 44, 15 Pick. 44 (1833)

- Selectmen clearly have no power to alter the limits of towns. This can only be done by the legislature of the commonwealth.
- Nor are they the ultimate judges of the territorial limits of towns.
- Their duty is a ministerial rather than a judicial one.
- It is to resurvey an old line and not to establish a new one.
- It is to renew monuments as they have existed, and not to alter their location.

Mass: Municipal Boundaries (3)
Freeman v. Kenney, 32 Mass. 44, 15 Pick. 44 (1833)

- They are liable to fall into errors and mistakes in their perambulations, and if these are to be deemed conclusive evidence, the boundaries of towns may be changed, and the rights of individuals, as well as corporations, affected by an accidental blunder or unintentional mistake of selectmen.

Mass: County Boundaries (1)
Bruno's Case, 340 Mass. 420 (1960)

- General Laws (Ter. Ed.) c. 42, § 2, provides,
- "The boundary lines of every town shall be perambulated and run and the marks renewed, once in every five years, by two or more of the selectmen of each town or by substitutes appointed by them in writing, and the proceedings shall be recorded in the records of each town."

Mass: County Boundaries (2)
Bruno's Case, 340 Mass. 420 (1960)

- The language of the statute is of great significance.
- The perambulation of boundary lines and the renewal of marks are referred to as "proceedings," which must "be recorded in the records" of the town.
- This is cogent confirmation of our opinion that perambulations are official acts and not those of employees.
- "When perambulations are duly made and recorded, they are not merely *prima facie*, but **very high and strong** [", but not conclusive,] evidence" of municipal boundary lines.

Penn: Retracement by Tax Map? (1)

In re Viola, 838 A.2d 21 (2003)

- Property Owners wish to develop the property, but they encountered difficulty dealing with Adams and Cranberry Townships because of the municipalities' dispute over jurisdiction.
- As a result, Property Owners filed a petition for the appointment of a border commission to determine the exact location of the boundary on the subject property pursuant to Section 302 of the Second Class Township Code

Penn: Several Theories Put Forward (2)

In re Viola, 838 A.2d 21 (2003)

- Property Owners …asserted the boundary should be established on the western edge of the subject property...
- The Border Commission rejected this approach because it did not attempt to discover the original border.
- Rather, the approach sought relocation of the boundary from its 1854 position…

Penn: Let's Use GPS…(3)

In re Viola, 838 A.2d 21 (2003)

- Adams Township presented the testimony of J. David Newcomer (Adams Township's Engineer).
- He opined the boundary could be located using a technique that employed mathematical division to interpret the 1853 division order.
- Specifically, Adams' Township's Engineer located the boundary by
- (i) determining the southeast and southwest corners of the county,
- (ii) measuring the distance between the two points using GPS technology,

Penn: Let's Use Tax Maps!…(4)

In re Viola, 838 A.2d 21 (2003)

- Cranberry Township presented the testimony of David C. Baker (Cranberry Township's Engineer).
- He opined the original boundary's location could not be determined due to the destruction of all direct evidence concerning its location.
- **He advocated the best methodology was to use the maps of the Tax Assessment Office of Butler County (tax maps).**

Penn: Tax Maps Are Convenient…(5)

In re Viola, 838 A.2d 21 (2003)

- Cranberry Township asserts the doctrine of equitable estoppel mandates the boundary be located in accordance with the tax maps.
- In this case, Cranberry Township claims development within the two municipalities is consistent with the tax map, including roads and a municipal pump station.
- Further, it notes there would be an impact on other private properties arising from movement of the township boundary.
- **The Border Commission rejected any estoppel argument.**.

Case Study: Reliability of Tax Records

Mass: Not Historically Accurate (1)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- In 1968, the town of Nantucket (town) took certain property (locus) by eminent domain for purposes related to Nantucket Memorial Airport (airport).
- At that time the locus was listed as "owners unknown" on the town's tax rolls, even though there was in fact an identifiable record owner.
- In 1985, an attorney acting on behalf of William J. Devine, trustee of the Loomis Realty Trust (trust), purchased the record owner's title…

Mass: Not Historically Accurate (2)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- Neither the record owner, the attorney, nor Devine had actual notice of the 1968 taking.
- Nor could the order of taking have been found in the chain of title to the locus by searching the grantor index.
- Further, after the 1985 purchase, the town restored the locus to the tax rolls, assessed and collected taxes on it, commenced tax takings,…

Mass: Not Historically Accurate (3)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- For unknown reasons, the locus was removed from the town's tax rolls sometime after 1923.
- **According to the former town counsel, the town's tax records are not historically accurate.**
- Some parcels of property simply dropped off the tax rolls in the 1920's and 1930's, particularly in the Surfside area of the town.
- When that happened, the property was listed in the tax records as "owners unknown."

Mass: Who Knew …Anything…? (4)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- Prior to trial, representatives of the town searched the commission's files for records pertaining to the taking and were not able to find any.
- Nor were they able to locate minutes of the commission's meetings in 1968 or 1970.
- Therefore, there was no evidence as to what the commission actually did to effect the taking

Mass: Just Check the Tax Records… (5)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- The judge inferred that, at the time of the taking, the town did little to ascertain the true owner of the locus.
- **It may have done little more than check the tax records**, which listed the owner of the locus as unknown.
- The judge also found that, for reasons that will be discussed later in greater detail, a reasonably prudent title examiner in 1968 would have found the 1923 deed conveying the locus to Carmer, and that, if the town had examined the grantor index for deeds from the subdivider (McKeever), it would have discovered that the record owner in 1968 was Carmer.

Mass: Just Check the Tax Records… (6)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- General Laws c. 184, § 25, provides: "No instrument shall be deemed recorded in due course unless so recorded . . . as to be indexed in the grantor index under the name of the owner of record of the real estate affected at the time of the recording."
- …construing the "recorded in due course" provision to apply to all recorded instruments is consistent with the strong public policy, evident throughout the real property statutes, of providing a "self-operative" system for readily ascertaining title to land.

Mass: Just Check the Tax Records… (7)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- The owner of record at the time of the taking was Carmer.
- The judge found, on ample evidence, that Carmer could readily have been identified as the owner of the locus had the town taken reasonable steps to determine the record owner.
- There was no error in the judge's conclusion that, in the circumstances of this case, the order of taking was not recorded "in due course" and was thus invalid.

Mass: Just Check the Tax Records… (8)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- In view of the language of G. L. c. 184, § 25, the strictness with which we interpret the eminent domain statutes, and the important purposes served by the recording acts, we agree with the judge that the order of taking was not recorded in due course.
- As a result, the three-year limitations period for challenging the validity of a taking or filing a petition for damages did not start running as of the date of the "owner unknown" order of taking in 1968.

Mass: Notice (9)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- Such notice need not in all cases be actual notice, so long as constructive notice is given.
- …("notice by publication is not enough with respect to a person whose name and address are known or very easily ascertainable and whose legally protected interests are directly affected by the proceedings in question").
- Ordinarily, constructive notice can be effected by recording the order of taking in the registry of deeds.
- This presupposes, however, that the order of taking is recorded in such a way that it can be found "by means of a search conducted in the conventional method."

Mass: Condemned, Then Ignored… (10)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- The town purported to take the locus for purposes relating to the airport, but did not use it for any purpose until years later.
- There is no evidence that the town paid for the locus, or set money aside in the event that the owner would be found.
- The town did not take physical possession of the locus for over thirty years after the purported taking, and then only when Devine commenced building on the locus.

Mass: Condemned, Then Ignored… (11)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- The town, apparently …
- …relying on nothing but its own inaccurate tax records, drew up an "owners unknown" order of taking, …
- …recorded it outside the existing chain of title, and …
- …then acted for the next thirty years as if no taking had occurred, until revoking Devine's permits, filling in his excavations, entering the locus, and fencing it in.

Mass: Condemned, Then Ignored… (12)
Devine v. Town of Nantucket, 449 Mass. 499 (2007)

- There is considerable force in the policy favoring the finality of takings.
- But that policy is outweighed in this case by the necessity of giving adequate notice before effecting an eminent domain taking, and by the importance of maintaining a reliable land recording system.
- In the unusual circumstances of this case, the judge properly quieted title in Devine.

Tax Maps and Road: New Jersey (1)

Point Pleasant v. Rollano: 2008 N.J. Super. Unpub.

- Specifically, the Borough sought an order to compel appellants to:
- 1) remove the gate that had been added to the chain link fence at the northerly property line of appellants' property; and
- 2) construct a six-foot-high stockade fence along the northerly property line, which effectively would have precluded appellants' use of Cottage Place as a means of ingress and egress to and from their property.

Contrary to the Tax Map…: NJ (2)

Point Pleasant v. Rollano: 2008 N.J. Super. Unpub.

- Kozik and Fitzgerald filed their third-party complaint, contending that …
- …"[c]ontrary to what the current Tax Map of the Borough of Point Pleasant depicts, Cottage Place does not extend to Lot 31 in Block 145 on the Tax Map of the Borough of Point Pleasant . . . ."
- "[t]he records of the Ocean County Clerk fail to reveal any instrument or map of record dedicating or extending the portion of Cottage Place, which lies between Lots 28 and 29 in Block 145 of the Tax Map . . . to Lot 31 . . .

Tax Maps conflict with title: NJ (3)

Point Pleasant v. Rollano: 2008 N.J. Super. Unpub.

- On the first day of trial, the Borough presented the trial court with a title search, which indicated that the …
- …Borough did not own a right-of-way in the grassy area, but only in the paved portion of Cottage Place, which stopped at the northerly property line of Kozik and Fitzgerald's properties.
- Contrary to the Tax Map, showing Cottage Place continuing past Kozik and Fitzgerald's properties to the northerly line of appellants' property, the title search verified that the grassy area was owned of record by Kozik and Fitzgerald.

Only Improved portion Dedicated: NJ (4)

Point Pleasant v. Rollano: 2008 N.J. Super. Unpub.

- Judge Grasso rendered a sixteen-page written opinion determining that the unimproved portion of Cottage Place had never been dedicated as a public thoroughfare, by implication or otherwise, and that the grassy area was owned in fee simple by Kozik and Fitzgerald.
- The judge also determined that appellants had no right of ingress and egress to and from their property through the grassy area.

Tax Maps conflict with title: NJ (5)

Point Pleasant v. Rollano: 2008 N.J. Super. Unpub.

- On March 21, 2007, Judge Grasso entered a confirming order, which:
- 1) entered judgment in favor of Kozik and Fitzgerald, "quieting title to the unimproved portion of Cottage Place which lies between Lots 28 and 29 in Block 145 . . . by declaring each of said [parties] as the owners of the unimproved portion of said tract lying between their respective parcels and the extended centerline of Cottage Place";
- 2) determined that the improved portion of Cottage Place was dedicated to public use;

Tax Maps conflict with title: NJ (6)

Point Pleasant v. Rollano: 2008 N.J. Super. Unpub.

- 3) determined that the remaining unimproved portion of Cottage Place, …is deemed not to have been dedicated either expressly or by implication for public use and the public therefore has never acquired a right of use therein"; …
- …5) dismissed appellants' counterclaim seeking full and complete access to and from their property through the unimproved portion of Cottage Place as a public thoroughfare;
- We affirm substantially for the reasons articulated by Judge Grasso in his cogent, written opinion of March 2, 2007

What the Tax Office Thought They Did…

Mass: Tax Sale vs. Title (1)

Sheriff's Meadow Foundation, Inc. v. Bay-Courte Edgartown, Inc.: 401 Mass. 267 (1987)

- The origin of the plaintiff's claim of title was traced to 1810 in the case of Lot 38 and to 1839 in the case of Lot 39.
- To the defendants, of crucial importance is the alleged title of Andrew E. Hathaway, acquired in 1916. Hathaway conveyed to Thomas P. Payne who died in 1937.
- In 1938, the town made two takings — one consisting of eighty acres, the other of 190 acres — of parcels assessed to Payne for nonpayment of taxes.

Mass: Tax Sale vs. Title (2)

Sheriff's Meadow Foundation, Inc. v. Bay-Courte Edgartown, Inc.: 401 Mass. 267 (1987)

- The defendants argue that whatever defects plagued the tax takings of the Hathaway-Payne property they were cured by operation of G. L. c. 60, § 80C, set out in full in the margin.
- The argument is flawed.

Mass: Tax Sale vs. Title (3)

Sheriff's Meadow Foundation, Inc. v. Bay-Courte Edgartown, Inc.: 401 Mass. 267 (1987)

- Though twenty years have lapsed from the recording of the deeds to the defendants' predecessors in title without there being commenced any challenges to the defendants' claims, the statute cannot cure a defect which is founded on a want of title.
- It is designed to correct defects, irregularities, and omissions in procedure or in an instrument of taking. The statute cannot supply title which did not exist at the time of taking.

Mass: SECTION 80-C (1)

Title to land conveyed under Sec. 79 or Sec. 80; curing defects

- *Section 80C. When any city or town has conveyed or sold any land under section seventy-nine or section eighty by an instrument in writing conveying or purporting to convey such land, …*
- *…and said instrument is duly recorded in the registry of deeds for the district wherein such land is situated and a period of twenty years elapses after the instrument is accepted for record, …*

Mass: SECTION 80-C (2)

Title to land conveyed under Sec. 79 or Sec. 80; curing defects

- *…and the notice or procedure for the taking and sale or conveyance under this chapter or the instrument or record thereof because of a defect, irregularity, or omission, …*
- *…fails to comply in any respect with any requirement of law relating thereto or the instrument or record thereof shall, notwithstanding such defects, irregularities, or omissions …*

Mass: SECTION 80-C (3)

Title to land conveyed under Sec. 79 or Sec. 80; curing defects

- *…be effective for all purposes to the same extent as though such notice or procedure or the instrument or record thereof had originally not been subject to any such defects, irregularities, or omissions, unless within said period of twenty years a proceeding is commenced on account of such defect, irregularity, or omission and notice thereof is duly recorded in said registry of deeds and indexed and noted on the margin of said instrument of conveyance and in the event of such proceeding, unless relief is thereby in due course granted.*

Surveyors Who Rely on Tax Maps

SC – Surveying from a Tax Map: (1)

McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- This action involves a dispute between Brown and McKee over the ownership of a twenty-seven-acre tract of land in Lexington County.
- The tract lies between Brown's and McKee's properties. Brown's land is north of the tract, and McKee's parcel is to the south.

SC – Brown Tract grows larger?: (2)

McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- A deed in Brown's chain of title lists the property as consisting of 139 acres and belonging to Thad Shealy.
- In 1949, Shealy conveyed 157 acres to J. Collie Amick, ostensibly selling more land than he had received.
- The 1949 plat states that it copies a 1920 plat, yet it inexplicably changes the southern boundary of the 139-acre parcel, increasing the tract to 157 acres.

SC – Brown Tract is oversized??: (3)

McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- As long as either party can recall, **a fence has existed along the northern boundary of the twenty-seven acres** and the southern boundary of Brown's land.
- Brown subdivided and sold all of his property north of the fence prior to this lawsuit. However, he never attempted to subdivide or sell the disputed tract. Indeed, **McKee introduced the deeds and surveys showing that Brown has sold over 150 acres of his property**.

SC – Discrepancy in Tax Map: (4)

McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- The property in question has been surveyed numerous times throughout the years.
- **In 1988 George Todd performed a survey of McKee's land and provided her with a plat.**
- **Todd discovered a discrepancy in the tax maps, which indicated Brown owned the twenty-seven acre tract.**

SC – Survey from the Tax Map?: (5)
McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- Subsequently, Brown hired Mike **Surveyor A** to survey the disputed tract.
- **Surveyor A** testified that Brown directed him to prepare a survey of a specific tax map parcel; he was not asked to research ownership issues.
- In performing the survey, **Surveyor A** placed two markers along the southern boundary of the disputed parcel.

SC – Survey from the Tax Map?: (6)
McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- He then discovered a survey which indicated McKee's father, Grover Corley, was the owner of the twenty-seven acres.
- **Surveyor A** testified that he determined McKee was the rightful owner of the property, and upon informing Brown of his discovery, …
- … **Surveyor A** was told not to complete his survey.
- **Surveyor A** did not remove the two markers which he claims he erroneously placed along the southern boundary.

SC – Survey from the Tax Map?: (7)
McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- In 2001, McKee hired **Surveyor X** to survey her property.
- **Surveyor X** did not utilize the deeds given to McKee or Brown, and he did not refer to the 1920 survey of Brown's property or the 1929 survey of McKee's land.
- **Surveyor X** relied on the property markers erroneously placed by **Surveyor A**.
- Ultimately he redrew the tax map, omitting the home place from McKee's property and leaving her with 308 acres. McKee disagreed with **Surveyor X's** survey and commenced this action against Brown.

SC – Survey from the Tax Map?: (8)
McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- McKee presented evidence that she inherited 340 acres from her parents.
- Absent the disputed tract, she would be left with only 308 acres.
- Brown's chain of title, in contrast, reveals that Thad Shealy was deeded 139 acres and later conveyed the identical tract which inexplicably contained 157 acres rather than 139.

SC – Piling Confusion on Confusion: (9)
McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- The survey performed by Todd establishes McKee as the owner of the tract.
- The survey by **Surveyor A** was not completed, and…
- … **Surveyor A's error** in placing survey markers caused **Surveyor X's survey to go awry.**

SC – Tax Map doesn't Change Title: (10)
McKee v. Brown, 2006 S.C. App. Unpub. (2006)

- Furthermore, the evidence showed that the home place was referenced in McKee's chain of title, was occupied and leased by McKee's ancestors, and was located on the twenty-seven acres.
- Due to an apparent error in the tax assessors office, both parties' paid taxes on the land. Therefore, the payment of taxes does not help either party's claim.
- **The evidence amply supports the master's ruling that McKee is the legal owner of the disputed tract.**

Tax Maps and Title: New York (1)

Morganteen v. Brenner:
28 A.D.3d 725; 814 N.Y.S.2d 213; 2006

- The relevant facts are not in dispute. The County of Dutchess (hereinafter the County) **foreclosed on an 11.10-acre parcel of vacant land in the Town of Dover** (hereinafter the parcel) to enforce the payment of unpaid taxes.
  After a judgment was entered in its favor, **the County recorded a tax sale deed on July 7, 1999, which, in reliance on a tax map** prepared by the defendant Dutchess County Real Property Tax Service (hereinafter RPTS), described the location of the parcel as being within the plaintiff's property.

Tax Maps and Title: New York (2)

Morganteen v. Brenner:
28 A.D.3d 725; 814 N.Y.S.2d 213; 2006

- The defendants Amy R. Brenner and James B. Leonard (hereinafter the defendants) entered into a contract to purchase the parcel from the County, and thereafter **commissioned a survey.**
- The **surveyor, in reliance on the tax map** prepared by RPTS, and **without conducting a field survey**, also **located the parcel within the plaintiff's property.**
- The defendants purchased the parcel in November 1999 and, relying on the survey they had commissioned, thereafter reconveyed title to the parcel to themselves.

Tax Maps and Title: New York (3)

Morganteen v. Brenner:
28 A.D.3d 725; 814 N.Y.S.2d 213; 2006

- The plaintiff commenced this action to determine ownership of the parcel depicted on the tax map.
- Through field surveys that referred to prior deeds of both the disputed parcel and the plaintiff's property, the plaintiff **established that the tax map was erroneous** in placing the parcel on her property and that the parcel conveyed to the defendants was actually located elsewhere.

Tax Maps and Title: New York (4)

Morganteen v. Brenner:
28 A.D.3d 725; 814 N.Y.S.2d 213; 2006

- In opposition, the defendants failed to raise a triable issue of fact.
- In describing the disputed parcel's location as being within the plaintiff's property, **the defendants' surveyor merely relied upon and replicated the tax map's erroneous estimation of the location of the disputed parcel**, …
- …which was not sufficient to raise a triable issue of fact as to the parcel's true location

Tax Map & Surveyor: Tennessee (1)

Whitelaw v. Brooks: 138 S.W.3d 890; 2003

- This case involves a **claim for surveyor negligence** in which a property owner seeks recovery of damages …
- Plaintiff, Clay Whitelaw ("Plaintiff" or "Whitelaw"), originally owned a 211-acre tract of land located in Haywood County, Tennessee.
- In January 1996, Whitelaw sold a 60-acre portion of this tract to Ketina Brooks ("Brooks").
- The deed transferring this 60-acre tract was recorded in the Register of Deeds office for Haywood County that same month.

Tax Map & Surveyor: Tennessee (2)

Whitelaw v. Brooks: 138 S.W.3d 890; 2003

- James Brooks, acting as Ketina Brooks' attorney-in-fact, hired **SMITH** ("Defendant" or "**SMITH**") to survey the land for the purpose of dividing the tract and selling the lots.
- **SMITH**, in derogation of the rules promulgated by the Tennessee State Board of Examiners for Land Surveyors,
- …**failed to create his survey using the latest recorded deed** to the property and instead …
- …**utilized a tax map provided by the Tax Assessor's office**. **SMITH'S** survey resulted in an encroachment on Whitelaw's remaining parcel of land.

Tax Map & Surveyor: Tennessee (3)
Whitelaw v. Brooks: 138 S.W.3d 890; 2003

- Brooks sold the divided lots of the 60-acre tract, which were based on the survey performed by **SMITH**. As a result, some of these lots sold encroached upon Whitelaw's remaining tract of land.
- This Court has supported the notion that a "**surveyor . . . may be held responsible for such damages as are sustained due to his negligence and lack of skill.**"

The Cost of "Tax Map" Survey: Tennessee (4)
Whitelaw v. Brooks: 138 S.W.3d 890; 2003

- Whitelaw's remaining claim of negligence against **SMITH** proceeded to trial on February 5, 2002, in the Chancery Court of Haywood County.
- The trial court, sitting without a jury, **awarded Plaintiff the attorney's fees** he incurred from clearing up the title to his land in the amount of **$ 12,507.95** and the value of the lost opportunity for the sale of the 9.51 acres as a result of the encroachment in the amount of $ **5,245.**
- For the following reasons, we affirm the decision of the trial court.

Tax Map and Survey: Vermont (1)
Bull v. Pinkham Engineering:
170 Vt. 450; 752 A.2d 26; 2000

- The trial court made undisputed findings that
- (1) the preliminary sketch of the proposed subdivision provided to defendant by Mr. **JONES** indicated that the subdivision's southern boundary was to coincide with the southern boundary of plaintiffs' property;
- (2) **defendant knew that the preliminary sketch was based upon the Ferrisburgh tax map;**
- (3) **tax maps are not intended to be used in establishing the boundaries on any survey,** and it would not be in accordance with professional surveying standards to do so;

Tax Map and Survey: Vermont (2)
Bull v. Pinkham Engineering:
170 Vt. 450; 752 A.2d 26; 2000

- (4) the physical characteristics of plaintiffs' property should have indicated to defendant that the tax map (and therefore the sketch) might not have accurately depicted the southern boundary of the property;
- (5) **without attempting to verify the accuracy of the southern boundary** of the proposed subdivision, or stating on its survey that the bearings indicated therein were based exclusively on other unverified surveys,
- **defendant used the tax map to guess at the location of the southern boundary line of the property** (and thus the subdivision).

Tax Map and Survey: Vermont (3)
Bull v. Pinkham Engineering:
170 Vt. 450; 752 A.2d 26; 2000

- The trial court also found that **professional survey standards require that a survey must verify the perimeter boundaries** of the parcel to be surveyed.
- Defendant contends that this finding cannot stand because plaintiffs failed to present expert testimony to support it.
- In response, plaintiffs point to testimony indicating that **defendant was aware that preparing an accurate survey required researching the deeds of adjoining owners** to verify the perimeter boundaries of the land to be surveyed.

Mass: Blind Leading the Blind (1)
Deane Building Associates, Inc. v. Bruffe,
47 Mass. App. Dec. 78 (1971)

- On the recommendation of the acquaintance the plaintiff agreed, without seeing the land, to buy the parcel for $10,000 and another parcel in Lakeville for $2000.00.
- The plaintiff wrote out a purchase and sale agreement by hand on a printed form, asking for pertinent information from the defendant as he wrote.
- He went on to describe the property by reference to a previous deed by book and page.

Mass: Blind Leading the Blind (2)

Deane Building Associates, Inc. v. Bruffe, 47 Mass. App. Dec. 78 (1971)

- The quantity of land actually in the parcel turned out to be 27.1 acres.
- Assessor Malcolm Buck of Middleboro testified that the town carried the parcel on its tax records as 23.85 acres.
- When a deed or agreement contains an adequate particular description of property to be conveyed, it will not be controlled by a recital of quantity unless it clearly appears that it was the intention to convey a definite quantity.

Phone Calls to Government Officials

SC – Zoning Maps: (1)

Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- In November 1996, Carolina Chloride purchased 7.67 acres of land from IBM for $85,000.00.
- The land was located on Killian Road in Richland County, near some railroad tracks. Carolina Chloride intended to use the property for storing and distributing calcium chloride, a chemical used to control dust and ice on roads, as well as to treat drinking water.
- This use required M-2 zoning, which designated a Heavy Industrial District.

SC – Zoning & Tax Maps: (2)

Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- In a letter to Morgan dated December 5, 1996, Brown stated that it was his "opinion" that the property "should properly be zoned M-2, Heavy Industrial." Brown added,
- "The tax map was in error and has been amended to reflect the proper zoning of M-2, Heavy Industrial." (Emphasis added.)
- There is **no indication in the record, however, that Brown ever produced an Official Zoning Map or ordinance** showing the property was zoned M-2 by County Council.

SC – Lot Improved based on Report: (3)

Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- Over the next several years, Carolina Chloride added improvements of more than $400,000.00 to the property, including a mini-warehouse business.
- As part of this process, Carolina Chloride requested and received the necessary County approval.
- **The employees indicated on the various permits and other documents that the property was zoned M-2.**

SC – Zoning now in Question: (4)

Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- On February 13, 2003, **John Hicks,** whose County letterhead identified him as the **Development Services Manager,** wrote to Morgan at Carolina Chloride and…
- … advised him that the Carolina Chloride property was **actually zoned RU (Rural District), not M-2, …**
- …and that the **existing facilities were non-conforming uses that could legally continue,** but could not be expanded.

SC – Zoning now in Question: (5)
Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- Morgan submitted Brown's 1996 letter stating it was his opinion the property was zoned M-2 to County officials and asked them to take corrective action, but they declined to do so.

SC – Claim against the County: (6)
Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- In contrast, **Carolina Chloride contends its negligence claim** is based not only on the **County's statements** regarding the property's zoning designation, …
- …but also on the **County's failure to exercise reasonable care in maintaining and interpreting the Official Zoning Map** and associated records.
- Carolina Chloride asserts the County committed negligence by virtue of the **failure of Brown in 1996 or Hicks in 2003** to advise Carolina Chloride of the correct legal zoning classification of its property.

SC – Tax Map vs. Zoning Map: (7)
Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- Similarly, in the current appeal, there was a mistake made in advising the property owner of the property's legal zoning classification.
- **Brown incorrectly advised Carolina Chloride, after its purchase, that the property was zoned M-2 based on his review of the "tax map."**
- **Brown did not state that he had ever reviewed the Official Zoning Map,** however, and the only documents in the record indicate that **the Official Zoning Map has consistently listed this property as being zoned RU,** not M-2.

SC – Don't Expect Too Much…: (8)
Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- "To subject county officials to the prospect of liability for innocent misrepresentation would discourage their participation in local government or inhibit them from discharging responsibilities inherent in their offices.
- Their **reluctance to express opinions would frustrate dialogue which is indispensable to the ongoing operation of government."**

SC – Know the Law…: (9)
Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- **All individuals** are presumed to know the law, including the nature and extent of a government official's authority, …
- …and they are charged with the knowledge that an ordinance may be changed only through compliance with proper procedures.

SC – Know the Law…: (10)
Carolina Chloride, Inc. v. Richland County: 394 S.C. 154 (2011)

- Although **it is certainly unfortunate that a mistake occurred** in this case, …
- …**Carolina Chloride had no legal right to rely solely upon the representations of County personnel** and …
- …**should have consulted the official record** to determine the legal zoning classification of its property.

Part III
Common Scheme Doctrine

(Working around the Statute of Frauds)

Stretching Statute of Frauds: Common Scheme Doctrine

Argument against…: Missouri (4)
Campbell v. Stout: 408 S.W.2d 585 (1966)

- There is considerable force to the defendants' argument, particularly on the face of the documents involved.
- It has been **repeatedly stated that restrictions upon the use of land must either be expressly stated or most clearly inferable** from a writing,
- …, and **any ambiguity must be resolved in favor of free use of the property.**
- Manifestly, it would do violence to these precedents to expand the phrase "or any other public convenience desirable for a residential district" into a restrictive covenant,

Argument in Favor…: Missouri (5)
Campbell v. Stout: 408 S.W.2d 585 (1966)

- On the other hand, there is a **strong line of current general authority** which supports plaintiffs' …
- …**basic legal theory that when a common grantor develops a tract of land for sale pursuant to a general plan or scheme of improvement**, and sells a substantial number of lots subject to restrictions of benefit to the land retained, …
- ***[KK note: continued]***

California: Common Scheme a "Quagmire" (1)
Citizens for Covenant Compliance v. Anderson:
12 Cal. 4th 345; 906 P.2d 1314; 47 (1995).

- **The law in this area is an unspeakable quagmire.** The intrepid soul who ventures into this formidable wilderness never emerges unscarred.
- Some, the smarter ones, quickly turn back to take up **something easier like the income taxation** of trusts and estates.
- Others, having lost their way, plunge on and after weeks of effort emerge not far from where they began, clearly the worse for wear.
- On looking back they see the trail they thought they broke obscured with foul smelling waters and noxious weeds. **Few willingly take up the challenge again.**

Common Scheme – History: Maryland (8)
Schovee v. Mikolasko:
356 Md. 93; 737 A.2d 578; 1999

- As the Restatement and some commentators point out,
- the **implied negative reciprocal easement or servitude doctrine arose before the advent of comprehensive zoning** in order to provide a measure of protection for those who bought lots in what they reasonably expected was a general development in which all of the lots would be equally burdened and benefitted.
- In those early days, it was uncommon for the developer to evidence the development or impose uniform restrictions through a recorded Declaration that would later be incorporated in individual deeds.

Mass: Subject to Existing Restrictions (1)
Snow v. Van Dam, 291 Mass. 477 (1935)

- *…subject to the restrictions contained in the deed to him "in so far as the same may be now in force and applicable."*
- This phrase did not purport to create any new restriction, and could have no such effect.

Mass: Limits of Restrictions (2)
Snow v. Van Dam, 291 Mass. 477 (1935)

- A restriction, to be attached to land by way of benefit, must not only tend to benefit that land itself …but must also be intended to be appurtenant to that land.
- If not intended to benefit an ascertainable dominant estate, the restriction will not burden the supposed servient estate, but will be a mere personal contract on both sides.

Mass: Common Scheme – Early Case (3)
Snow v. Van Dam, 291 Mass. 477 (1935)

- In the absence of express statement, an intention that a restriction upon one lot shall be appurtenant to a neighboring lot is sometimes inferred from the relation of the lots to each other.
- But in many cases there has been a scheme or plan for restricting the lots in a tract undergoing development to obtain substantial uniformity in building and use.
- The existence of such a building scheme has often been relied on to show an intention that the restrictions imposed upon the several lots shall be appurtenant to every other lot in the tract included in the scheme.

Mass: Common Scheme – Early Case (4)
Snow v. Van Dam, 291 Mass. 477 (1935)

- What is meant by a "scheme" of this sort?
- In England, where the idea has been most fully developed, it is established that the area covered by the scheme and the restrictions imposed within that area must be apparent to the several purchasers when the sales begin.
- The purchasers must know the extent of their reciprocal rights and obligations, or, in other words, the "local law" imposed by the vendor upon a definite tract.

Mass: Common Scheme – Early Case (5)
Snow v. Van Dam, 291 Mass. 477 (1935)

- Where such a scheme exists, it appears to be the law of England and some American jurisdictions that a grantee subject to restrictions acquires by implication an enforceable right to have the remaining land of the vendor, within the limits of the scheme, bound by similar restrictions.

Mass: Common Scheme – Early Case (6)
Snow v. Van Dam, 291 Mass. 477 (1935)

- Nevertheless, the existence of a "scheme" continues to be important in Massachusetts for the purpose of determining the land to which the restrictions are appurtenant.
- Sometimes the scheme has been established by preliminary statements of intention to restrict the tract, particularly in documents of a public nature…
- More often it is shown by the substantial uniformity of the restrictions upon the lots included in the tract.

Mass: Common Scheme – Early Case (7)
Snow v. Van Dam, 291 Mass. 477 (1935)

- Apparently in Massachusetts a "scheme" has legal effect if definitely settled by the common vendor when the sale of lots begins, even though at that time evidence of such settlement is lacking and a series of subsequent conveyances is needed to supply it.
- "the criterion in this class of cases is the intent of the grantor in imposing the restrictions."

Mass: Common Scheme – Early Case (8)
Snow v. Van Dam, 291 Mass. 477 (1935)

- Neither the restricting of every lot within the area covered, nor absolute identity of restrictions upon different lots, is essential to the existence of a scheme.
- But extensive omissions or variations tend to show that no scheme exists, and that the restrictions are only personal contracts.

Mass: Common Scheme – Early Case (9)
Snow v. Van Dam, 291 Mass. 477 (1935)

- In the present case the lots of some of the plaintiffs were sold before, and the lots of others after, the conveyance from Shackelford to Robert C. Clark on January 23, 1923, which first imposed a restriction upon the lot now owned by the defendant Van Dam.
- The plaintiffs whose lots were sold before January 23, 1923, cannot claim succession to any rights of Shackelford or of land then retained by him.
- In general, an equitable easement or restriction cannot be created in favor of land owned by a stranger.

Mass: Common Scheme – Early Case (10)
Snow v. Van Dam, 291 Mass. 477 (1935)

- …if there was a scheme of restrictions, existing when the sale of lots began in 1907, which scheme included the lands of the plaintiffs and of the defendant Van Dam, …
- …and if the restrictions imposed upon the land of the defendant Van Dam in 1923 were imposed in pursuance of that scheme, then all the plaintiffs are entitled to relief, unless some special defence is shown.
- The burden is upon the plaintiffs to show the existence of such a scheme.

Mass: Common Scheme – Early Case (11)
Snow v. Van Dam, 291 Mass. 477 (1935)

- In our opinion they have done so. Unquestionably there was a scheme which included all the land south of Thatcher Road.
- The real question is, whether in its origin it included the land north of that road, where is situated the lot of the defendant Van Dam.
- That lot lies at the gateway of the whole development. One must pass it to visit any part of Brier Neck.
- The use made of that lot tends strongly to fix the character of the entire tract.

Mass: Common Scheme Doctrine (1)
Popponesset Beach Ass'n v. Marchillo:
39 Mass. App. Ct. 586 (1996)

- No express covenant or reservation appears in the chain of title of the defendants that imposes an obligation to contribute to a planned area association.
- The Association brought an action, to recover past and future dues and assessments allocable to the defendants' premises based on four theories:
- (1) a title-based claim;
- (2) a claim based on a common scheme…

Mass: Registered Land & Scheme (2)

Popponesset Beach Ass'n v. Marchillo:
39 Mass. App. Ct. 586 (1996)

- Title to registered land is free of encumbrances that are not noted on the certificate of title, either by express grant or reservation or by express reference to a registered document that contains the grant or reservation. …
- To that general rule there are two exceptions, on which the Association fastens in its attempt to burden the defendants' land:

Mass: Registered Land & Scheme (3)

Popponesset Beach Ass'n v. Marchillo:
39 Mass. App. Ct. 586 (1996)

- (1) an encumbrance may bind an owner if what the certificate of title recites in the way of prior documents, plans, restrictions, rights, and reservations would prompt a reasonable purchaser to investigate further the referenced documents, or
- (2) the purchaser has actual knowledge of the encumbrance.

Mass: Common Scheme Doctrine (4)

Popponesset Beach Ass'n v. Marchillo:
39 Mass. App. Ct. 586 (1996)

- Closely related to the title-based claim — indeed, a variant of it — is the Association's claim to contribution based on a common scheme of development.
- In its fullest expression in some jurisdictions, the idea of a common scheme of development is that, if certain uniform encumbrances are inserted in the titles of the preponderance of lots in a subdivision, lots in the subdivision that do not carry the encumbrance in writing in their chains of title will nevertheless be so burdened.

Mass: Common Scheme Limited (5)

Popponesset Beach Ass'n v. Marchillo:
39 Mass. App. Ct. 586 (1996)

- Massachusetts decisions take the more limited view that the common scheme burden arises **only when a seller of land binds that vendor's remaining land with restrictions by means of a writing**.

Mass: Common Scheme Limited (6)

Popponesset Beach Ass'n v. Marchillo:
39 Mass. App. Ct. 586 (1996)

- Posit, for example, that after imposition of such an encumbrance, the vendor sells a series of lots shown on a recorded plan subject to those same restrictions and sells some lots without making them subject to those restrictions.
- On such facts any owner of an encumbered lot may impose the restriction on a lot acquired without the expressed restriction.

Mass: Common Scheme Limited (7)

Popponesset Beach Ass'n v. Marchillo:
39 Mass. App. Ct. 586 (1996)

- The decisive differentiating factor in the Massachusetts common scheme principle is that the restriction is written in a root deed from which both lots subject to an express encumbrance and lots not subject to an express encumbrance flow.
- Against this background, the Association is unable to impose on the defendants' properties the claimed right to collect dues and assessments based on a common scheme.

Mass: Common Scheme Doctrine (1)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- The only issue presented by this case is whether the defendants' conveyance of thirteen lots shown on a subdivision plan by deeds which contained identical restrictions operated similarly to restrict the remaining lots shown on that plan and still owned by the defendants.

Mass: Common Scheme Doctrine (2)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- April 2,1965, the defendants caused to be recorded in the appropriate registry of deeds a subdivision plan (plan) dated June 15, 1964, and approved by the planning board of the town of Norwood on March 29, 1965.
- The plan showed proposed ways and thirty-seven numbered lots, all owned by the defendants.

Mass: Common Scheme Doctrine (3)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- Between that date and the filing of the bill in this suit on July 10, 1969, the defendants conveyed sixteen of the lots by thirteen separate deeds, all of which were duly recorded.
- Eleven of the deeds contained identical restrictions which provided as follows in so far as pertinent to the issue before us:

Mass: Common Scheme Doctrine (4)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- *"Said premises are hereby conveyed subject to the restrictions below set forth, which are hereby imposed on said premises for the exclusive benefit of the Grantors and their successors in trust and of such of their successors in title to the benefitted land, hereinafter described (or to any portion or portions thereof), to whom the exclusive benefit of these restrictions may hereafter be expressly granted of record."*

Mass: Common Scheme Doctrine (5)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- *"Any person hereafter claiming under this deed may rely upon any instrument in writing signed by the Grantors or their successors in trust or their successors in title to whom the exclusive benefit of these restrictions may hereafter have been expressly granted of record, or by any agent or agents to whom authority therefor may have been delegated by the Grantors or such successors by instruments duly recorded with Norfolk Registry of Deeds or registered with Norfolk Registry District of the Land Court, purporting to approve any plans or completed construction, or waiving these restrictions in particular respects.*

Mass: Common Scheme Doctrine (6)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- On June 19, 1969, the defendants obtained a building permit from the building inspector of the town of Norwood for the erection of a multi-family apartment building on one of the lots on the plan which they still own, and they started to construct the building.

Mass: Common Scheme Doctrine (7)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- For this proposition they cite and rely almost entirely on the decision in *Snow v. Van Dam, 291 Mass. 477.* This reliance is misplaced.
- In *Snow v. Van Dam, supra, at 479*, all of the lots of both the plaintiffs and the defendants were subject to restrictions originally imposed by a common grantor.
- It was not a case in which the owners of lots previously restricted by a grantor were attempting to enforce the same restrictions against other land still owned by that grantor.

Mass: Common Scheme Doctrine (8)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- The case before us is governed by the rule first applied in this Commonwealth in ***Sprague v. Kimball, 213 Mass. 380, decided in 1913.***
- There the court found that the defendant owned a tract of land which she intended to develop, that she established a general building scheme for that purpose for the entire tract and that she then sold four lots by deeds incorporating restrictions to carry out that scheme and orally represented and agreed with each buyer that she would not sell the fifth and last lot except by a deed imposing the same restrictions.

Mass: Common Scheme Doctrine (9)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- On a bill in equity brought by the purchasers of the four lots to enjoin the developer from conveying the fifth lot without imposing the restrictions on it, this court held they were not entitled to relief.
- "The right invoked by the plaintiffs ... is an equitable easement or servitude passing with a conveyance of the premises to subsequent grantees. ...
- It is settled by our decisions, that under . . . [the statute of frauds] an equitable as well as a legal interest in land must be evidenced by some sufficient instrument in writing or it is unenforceable."

Mass: Common Scheme Doctrine (10)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- In the recent case of ***Frank v. Visockas, 356 Mass. 227,*** the defendants conveyed five lots by deeds containing substantially similar restrictions which limited the use of the lots to single family dwellings, and they agreed orally with each purchaser that all lots subsequently sold would be made subject to the same restrictions.
- When the defendants later decided to use their remaining land for a different purpose, this court denied relief to the purchasers of the five lots…

Mass: Common Scheme Doctrine (11)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- In reaching our decision we have been mindful of the existence of substantial support in judicial decisions and in the writings of legal scholars for the view that if a developer conveys enough lots on a subdivision plan by deeds including uniform restrictions which prove the existence of a uniform or common scheme for the development but without expressly agreeing to insert the same restrictions on later conveyances of other lots on the plan, an agreement to do so may nevertheless be implied and enforced in equity notwithstanding the statute of frauds.

Mass: Common Scheme Doctrine (12)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- In reaching our decision we have been equally mindful of the fact that the proliferation of implied rights in or servitudes upon real estate, which cannot be readily ascertained by an examination of the records of the appropriate registry of deeds or of the Land Court, will serve only further to erode the integrity and reliability of such records and will be a subversion of the fundamental purpose for which such records are required to be made and maintained.

Mass: Common Scheme Doctrine (13)
Houghton v. Rizzo, 361 Mass. 635 (1972)

- A prospective purchaser of a lot on a plan from a developer who has not previously expressly subjected that lot to any restrictions of record should not be subjected to the nearly impossible burden and risk of deciding at his peril whether, by a series of restrictions imposed on lots previously conveyed, the developer has impliedly restricted his remaining land in the same way.

Restrictions vs. Easements

Mass: Limits on Restrictions (1)
GL Part II, Title 1, Chapter 184, Section 23:
Conditions or restrictions; term of years; applicability

- ***Conditions or restrictions**, unlimited as to time, by which the title or use of real property is affected, **shall be limited to the term of thirty years** after the date of the deed or other instrument or the date of the probate of the will creating them, except in cases of gifts or devises for public, charitable or religious purposes.*
- *This section shall not apply to **conditions or restrictions** existing on July sixteenth, eighteen hundred and eighty-seven, to those contained in a deed, grant or gift of the commonwealth, or to those having the benefit of section thirty-two.*

Mass: Limits on Restrictions (1)
GL Part II, Title 1, Chapter 184, Section 28:
Conditions or restrictions; term of years; applicability

- *Section 28: **Restrictions imposed before January 1, 1962**; limitations on enforceability; extension of period*
- *Section 28. No restriction imposed before January first, nineteen hundred and sixty-two **shall be enforceable after the expiration of fifty years** from its imposition …*
- *…unless a notice of restriction is recorded before the expiration of such fifty years or before January first, nineteen hundred and sixty-four, whichever is later, and in case of such recording, twenty years have not expired after the recording of any notice of restriction without the recording of a further notice of restriction.*

Mass: Limits on Restrictions (1)
Patterson v. Paul, 448 Mass. 658 (2007)

- In this action brought by David D. Patterson and Deborah K. Allen (plaintiffs), the owners of a parcel of land in Orleans, against the neighbors on both sides of their property, we consider the scope and duration of view easements that enable the parties to see, among other scenic features, the waters of Little Pleasant Bay and the Atlantic Ocean.
- For the reasons that follow, we conclude that the view easements in this case are affirmative easements not limited in duration to thirty years

Mass: Limits on Restrictions (2)
Patterson v. Paul, 448 Mass. 658 (2007)

- In 1986, the three-acre parcel was subdivided into three one-acre lots.
- These lots were conveyed separately by deeds recorded in the Barnstable County registry of deeds on April 14, 1999.
- All three deeds contain the same view easement in favor of the other properties

Mass: Limits on Restrictions (3)
Patterson v. Paul, 448 Mass. 658 (2007)

- *"No structure shall be constructed upon any portion of the area subject to the view easements. The view easements will permit the owners of Lots 9A and 9C as shown on said Plan to trim and top trees and other vegetation within the easement area on Lot 9B, as well as the Grantees herein and their successors in interest to trim and top trees and other vegetation within the easement area on Lot 9C, so as to clear and maintain an unobstructed view across the entire view easement areas, exposing to view any and all, but not limited to, the waters of Pleasant Bay and the Atlantic Ocean, along with islands, marshes, beaches, and mainland promenades which present themselves.*

Mass: Limits on Restrictions (4)
Patterson v. Paul, 448 Mass. 658 (2007)

- After considering the defining characteristics of affirmative and negative easements, and after analyzing the particular features of the view easements here, a judge in the Land Court concluded that such easements were affirmative and, therefore, were not subject to the thirty-year durational limitation set forth in § 23…
- "Since 1887, Massachusetts law has imposed a thirty-year time limitation on land use restrictions that do not themselves contain an express limitation on duration.

Mass: Limits on Restrictions (5)
Patterson v. Paul, 448 Mass. 658 (2007)

- As is pertinent here, a negative easement restricts the uses that can be made of property. See Restatement (Third) of Property (Servitudes) § 1.2 comment a, at 13 (2000).
- "A negative easement consists solely of a veto power. The easement owner has, under such an easement, the power to prevent the servient owner from doing, on his or her premises, acts that, but for the easement, the servient owner would be privileged to do."

Mass: Limits on Restrictions (6)
Patterson v. Paul, 448 Mass. 658 (2007)

- Significantly, however, "the holder of such a [negative easement] has no right to use the land on which he holds the restriction as he would if he held an affirmative easement."
- An affirmative easement "creates a nonpossessory right to enter and use land in the possession of another and obligates the possessor not to interfere with the uses authorized by the easement."

Mass: Limits on Restrictions (7)
Patterson v. Paul, 448 Mass. 658 (2007)

- Here, the language of the view easements is distinguishable, in purpose and effect, "from that often employed to restrain the use of real property, and building upon it, for the benefit of other land, resulting in a 'restriction' enforceable on equitable principles."

Mass: Limits on Restrictions (8)
Patterson v. Paul, 448 Mass. 658 (2007)

- We recognize that the view easements do not allow the plaintiffs to construct any structure on the portion of their property subject to the easements. This restraint suggests a negative aspect to the view easements.
- However, as pertains to. the present controversy, we agree with the defendants that the view easements explicitly confer on them the affirmative right to enter onto the plaintiffs' property "to trim and top trees and other vegetation within the easement area on Lot 9B . . . so as to clear and maintain an unobstructed view across the entire view easement areas.

Mass: Limits on Restrictions (9)
Patterson v. Paul, 448 Mass. 658 (2007)

- The purpose and effect of the view easements are not simply to limit the uses that the plaintiffs can make of their own property.
- Rather, the view easements here have taken on the defining characteristics of an affirmative easement by conferring on the defendants the right to enter and use land in the possession of another, and we conclude that this fact is dispositive.

Was Common scheme abandoned?: NJ (20)
Blaine v. Ritger:
211 N.J. Super. 644; 512 A.2d 553; 1986

- Ritger next urges that any neighborhood scheme has been abandoned; he relies upon the fact that 12 of the existing houses are less than 75 feet from Ocean Avenue and that the others "are set back so far as to not take advantage of the view of the ocean."
- **The trial judge rejected the contention**. He found that there had been **"no wholesale disregard of the building set-back"** and that "[w]here there has been some slippage it is attributable to a reluctance of one neighbor to sue another where the intrusion was so slight as not to cause major concern."

Was Common scheme abandoned?: NJ (21)
Blaine v. Ritger:
211 N.J. Super. 644; 512 A.2d 553; 1986

- There is accordingly no sound basis to conclude that the violations of the restrictions were so widespread or significant as to "indicate either a change in the neighborhood or a clear intent on the part of the property owners generally to abandon the original plan."
- **Rather than proving an abandonment of the scheme, the pattern of development thus conduces to the conclusion that Ritger "was charged with notice of the community scheme, and that he is bound to observe its ordinances."**

Common Scheme: NJ (1)
Degray v. Monmouth:
50 N.J. Eq. 329; 24 A. 388; 1892

- It is settled that a court of equity will restrain the violation of a covenant, entered into by a grantee, restrictive of the use of lands conveyed, …
- …not only against the covenantor but against …
- …all subsequent purchasers of the lands with notice of the covenant, irrespective of the questions whether the covenant is of a nature to run with the land or whether it creates an easement; …
- …provided, however, that its enforcement is not against public policy. ***Tulk v. Moxhay,***

Common Scheme: NJ (2)
Degray v. Monmouth:
50 N.J. Eq. 329; 24 A. 388; 1892

- The class of cases in which equity has given such relief embraces those involving restrictive covenants, entered into with the original owner, or owners, of a tract, …
- …in pursuance of a general plan for the development and improvement of the property, by laying it out in streets, avenues and lots, adopting some …
- …uniform or settled building scheme, regulating the number, location, size or style of houses, or the uses to which the buildings or property may be put.

No Common Scheme When…: NJ (3)
Degray v. Monmouth:
50 N.J. Eq. 329; 24 A. 388; 1892

- The action is held not to be maintainable between purchasers not parties to the original covenant, in cases in which—
- (1) It does not appear that the covenant was entered into to carry out some general scheme or plan for the improvement or development of the property which the act of defendant disregards in some particular.
- (2) It does not appear that the covenant was entered into for the benefit of the land of which complainant has become the owner.

No Common Scheme When…: NJ (4)

Degray v. Monmouth:
50 N.J. Eq. 329; 24 A. 388; 1892

- (3) It appears that the covenant was not entered into for the benefit of subsequent purchasers, but only for the benefit of the original covenantee and his next of kin.
- (4) It appears that the covenant has not entered into the consideration of the complainant's purchase.
- (5) It appears that the original plan has been abandoned without dissent, or the character of the neighborhood has so changed as to defeat the purpose of the covenant, and to thus render its enforcement unreasonable.

Court derives this principle: NJ (6)

Degray v. Monmouth:
50 N.J. Eq. 329; 24 A. 388; 1892

- The law, deducible from these principles and the authorities, applicable to this case, is, that **where there is a general scheme or plan,** …
- …adopted and **made public by the owner** of a tract, for the development and improvement of the property, by which it is divided into streets, avenues and lots, …
- …and contemplating a restriction as to the uses to which buildings or lots may be put, to be secured by a covenant embodying the restriction, to be inserted in each deed to a purchaser;
- ***[KK note: continued next slide]***

Easement or Equity?: NJ (7)

Degray v. Monmouth:
50 N.J. Eq. 329; 24 A. 388; 1892

- …and it appears, by writings or by the circumstances, that such covenants are intended for the benefit of all the lands, …
- …and that each purchaser is to be subject to and to have the benefit thereof; and the covenants are actually inserted in all deeds for lots sold in pursuance of the plan; one purchaser and his assigns may enforce the covenant against any other purchaser and his assigns, if he has bought with knowledge of the scheme, and the covenant has been part of the subject-matter of his purchase.

General Scheme–Easements and Intent: Ohio

Kuebler v. Cleveland Short Line Ry. (1)
20 Ohio Dec. 525; 1910

- **Where the owner of a tract of land adopts a general scheme for its improvement**, dividing it into lots and conveying these with uniform restrictions as to the purpose for which the land may be used.
- such restrictions create equitable **easements** in favor of the owners of the several lots which may be enforced in equity by one of such owners. Such restrictions are not for the benefit of the grantor only, but for the **benefit of all purchasers.**

General Scheme–Easements and Intent: Ohio

Kuebler v. Cleveland Short Line Ry. (2)
20 Ohio Dec. 525; 1910

- The owner of each lot has, as pertinent to his lot, a right in the nature of an **easement** upon the other lots which he may enforce in equity. **Whether such restriction creates a right which inures to the benefit of purchasers, is a question of intention.**
- And to create such a right, it must appear from the terms of the grant, or from the **surrounding circumstances, that the grantor intended** to create an **easement** in favor of the purchasers.
- The fact that like restrictions have been inserted in all the deeds of the grantor conveying adjacent land is a circumstance to be considered

Mass: Common Scheme & Beach (1)

Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- The defendant, as trustee of the Monica T. Grave-line Trust (trust), appeals from a Land Court judge's decision that
- (1) the plaintiffs, non-waterfront lot owners in the Hyannis Park subdivision, have an implied easement allowing them to use a beach on Lewis Bay adjoining property owned by the trust, and
- (2) said easement has not been abandoned or extinguished.
- We affirm.

Mass: Common Scheme & Beach (2)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- This case involves a longstanding dispute concerning the rights of successors in title to certain parcels of property in a subdivision established by three plans dated 1892, filed in the Barnstable County registry of deeds in 1892, 1894, and 1895 (collectively referred to as 1892 plans), to use the beach on Lewis Bay.

Mass: Common Scheme & Beach (3)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- In furtherance of its plan, Security placed several advertisements in the Brockton Daily Enterprise newspaper proclaiming the benefits of owning a lot in the subdivision.
- Among the claims made in an advertisement dated May 20, 1893, were that the lots were
- "Some of the Best Shore lots in New England," with a "Cool breeze all the time, good bathing, boating and fishing, nice beach, no undertow, shade trees on several of the lots."

Mass: Common Scheme & Beach (4)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- In 1929, J.P. Scudder, an original trustee of Security, purported to convey the beach abutting the trust's waterfront lots to the trust's predecessors in title.
- The 1929 deeds identified the land being conveyed as running from the previously-established lot line to the low water line as shown on the 1892 plans.
- On August 28, 2008, in a very thorough, comprehensive decision, the Land Court judge ruled that the plaintiffs have implied easement rights in the beach.

Mass: Common Scheme & Beach (5)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- …the judge determined that the 1929 Scudder deeds were a nullity because Scudder had no authority to execute any documents on behalf of Security.
- He also noted that a number of the 1929 deeds, including those purporting to convey the beach adjoining lots 109, 110, and 111, contained a provision that stated that the beach was to be left undeveloped and kept open for public use.

Mass: Common Scheme & Beach (6)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- A trial on these issues was held on October 28 and 29, 2009, after which the judge issued another thorough, comprehensive decision, and ruled that the plaintiffs have not abandoned the easement.

Mass: Common Scheme & Beach (7)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- It is undisputed that the original deeds at issue in this case do not contain language giving the plaintiffs the right to use the beach on Lewis Bay.
- However, "[i]t is familiar law that the owner of land may make use of one part of his land for the benefit of another part in such a way that upon a severance of the title an easement, which is not expressed in the deed, may arise which corresponds to the use which was previously made of the land while it was under common ownership."

Mass: Common Scheme & Beach (7)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- It is undisputed that the original deeds at issue in this case do not contain language giving the plaintiffs the right to use the beach on Lewis Bay.
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Mass: Common Scheme & Beach (8)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- We agree with the judge that this case is controlled by Reagan v. Brissey, 446 Mass. 452 (2006).
- The beach, like the parks at issue in that case, was part of a common scheme for a vast subdivision with exceptional beach and bathing facilities.
- It was entirely reasonable for the judge to infer from the advertisements that the existence of the beach was an important feature in Security's attempt to sell the nonwaterfront lots located in the Hyannis Park subdivision

Mass: Common Scheme & Beach (9)
Leahy v. Graveline, 82 Mass. App. Ct. 144 (2012)

- Extinguishment of the easement and the trust's knowledge thereof.
- The trust argues that the judge erroneously concluded, after trial, that the implied easement was not extinguished and that the trust was not a bona fide purchaser without knowledge of the easement.

Mass: Common Scheme & Park (1)
Reagan v. Brissey, 446 Mass. 452 (2006)

- We place little weight on the failure of Luce to specifically mention the word "parks" in the Vineyard Gazette advertisement.
- We acknowledge that other subdivisions in the area were advertised as specifically providing such amenities. It is entirely reasonable, however, given the context of the development of these other subdivisions in proximity to the Bellevue Heights subdivision, to infer that the existence of the parks was an important feature in Luce's attempt to sell the lots.

Mass: Common Scheme & Park (2)
Reagan v. Brissey, 446 Mass. 452 (2006)

- These subdivisions were all seaside vacation resorts, designed essentially as communities, with small lots on which individuals and individual families could lodge, and with related parks and plazas on which the entire subdivision community could congregate for social, recreational, and religious purposes.

Mass: Common Scheme & Park (3)
Reagan v. Brissey, 446 Mass. 452 (2006)

- Luce's advertisement did not specifically mention parks. The advertisement did, however, state that the Bellevue Heights subdivision was a "Seaside Resort," with "gently undulating" lands, and also quoted poetry describing "pleasure in the pathless woods."
- With small lot sizes, the advertisement's references to lands and woods, accompanied by poetic embellishment, suggested the existence of parks for the enjoyment of all lot owners…

Mass: Common Scheme & Park (4)
Reagan v. Brissey, 446 Mass. 452 (2006)

- We also find it significant that, just two years after marketing the Bellevue Heights subdivision and selling individual lots for amounts ranging approximately between $119 and $291, Luce's bankruptcy trustees sold the parks and avenues for five dollars.
- This conveyance demonstrates not only that the parks and avenues were of little market worth as developable land,9 but also that Luce had intended to treat, and did so treat, the park lands as separate and distinct from the buildable lots.

Mass: Common Scheme & Park (5)
Reagan v. Brissey, 446 Mass. 452 (2006)

- We reject the individual defendants' characterization of the plaintiffs' claimed interest in the parks as a restrictive covenant that lapsed in 1964 because the plaintiffs and their predecessors failed to file a notice of restriction pursuant to G. L. c. 184, §§ 2610 and 28.11
- The plaintiffs are asserting a right to use the land on which the parks are situated for general recreational purposes consistent with parks.

Mass: Common Scheme & Park (6)
Reagan v. Brissey, 446 Mass. 452 (2006)

- The plaintiffs' interest is more accurately characterized as an affirmative easement, which is not subject to the notice of restriction provisions in the cited statutory provisions.

Reasons that a Common Scheme Claim Can Fail

1. Lack of Uniformity of the Lots created – Significant acreage variations.
2. Lack of Clear Intent to create an overall plan.
3. Random nature of any written Restrictions.
4. Failure of Residents to adopt the purported plan.
5. Lots sold represent only a small portion of the total of the parent tract.
6. No Increased benefit or value results from restrictions.
7. Violates law or public policy.

Massachusetts Considerations

1. Must be a Common Grantor that restricted entire tract
2. Restrictions may be implied by sales literature
3. These are often upheld, even where creating documents are a century old
4. Positive/Negative Servitude Dichotomy is critical.
5. Beach Access/Park Access generally considered Positive easements
6. View Easements may be positive or negative.
7. Limits on "Veto Power" restrictions.

Part IV: Part Performance

(Operating outside the Statute of Frauds)

Parol Agreement vs. Part Performance

Parol Sale of Land: Missouri (1)
Kackley v. Burtrum: 947 S.W.2d 461; 1997

- An **oral agreement for the sale** of real property falls **squarely within the Statute of Frauds**, § 432.010, RSMo 1986, and will not be enforced at law.
- Equity will decree specific performance of such a contract, however, **if a party has acted to such a degree upon the contract that denying the party the benefit of the agreement would be unjust.**

Exception to Statute of Frauds: Missouri (1)
Anderson v. Abernathy: 339 S.W.2d 817; 1960

- Plaintiff and defendants' evidence on the question **whether there was an oral contract to sell Lot 5** was diametrically opposed.
- **if believed,** clearly **established the existence of an oral agreement** between Grace Anderson and Charles Abernathy (sister and brother) and Erie Abernathy, …the Abernathys not only sold Grace Anderson **Lot 6** for $700, $25 down, balance later, …
- but also at the same time agreed to sell Grace Anderson Lot 5 for $700, payment to be made for Lot 5 … The Abernathys categorically denied the existence of any agreement to sell **Lot 5**

Proof: Contract, Performance: Missouri (5)
Alonzo v. Laubert: 418 S.W.2d 94; 1967

- Judge Sturgis recognized the distinction between necessity of the proof **(1) of the contract** and (2) **of performance** of its terms where it is clear or even admitted that a contract existed.
- We conclude that the contract may be established by a combination of documents not themselves meeting the requirement of the statute of frauds and of oral testimony,
- …**followed by proof of performance by the party or parties seeking equitable relief.**
- Such performance must point to the contract itself where there could otherwise be doubt as to its existence or its terms.

Only 1 Reasonable Explanation: New York (1)
Burns v. McCormick:
233 N.Y. 230; 135 N.E. 273; 1922

- Not every act of part performance will move a court of equity, though legal remedies are inadequate, to enforce an oral agreement affecting rights in land.
- There must be **performance "unequivocally referable" to the agreement,** performance which alone and without the aid of words of promise is **unintelligible or at least extraordinary unless as an incident of ownership,** assured, if not existing.
- "An act which admits of explanation without reference to the alleged oral contract or a contract of the same general nature and purpose is not, in general, admitted to constitute a part performance"

Part Performance – Early: New York (2)
Burns v. McCormick:
233 N.Y. 230; 135 N.E. 273; 1922

- On the other hand, the buyer who not only pays the price, but possesses and improves his acre, may have relief in equity without producing a conveyance
- His conduct is itself the symptom of a promise that a conveyance will be made.
- What is done must itself supply the key to what is promised.
- Laxer tests may prevail in other jurisdictions.
- We have been consistent here .

Georgia: Part Performance (1)
Dobbs v. Dobbs:
270 Ga. 887; 515 S.E.2d 384; 1999

- Appellant Larry Dobbs and appellee Gary Dobbs are brothers who entered into an oral contract in 1973 for Larry to sell and Gary to purchase a house and one acre of land.
- The brothers agreed that Gary would assume the mortgage, and take possession of and maintain the property.
- They further agreed that title to the property would **remain in Larry's name until Gary satisfied the outstanding 30-year mortgage**.

Georgia: Part Performance (2)
Dobbs v. Dobbs:
270 Ga. 887; 515 S.E.2d 384; 1999

- Gary made mortgage payments directly to Larry, occasionally made payments directly to the mortgage company, and sometimes performed services for or made loans to Larry as a set-off against mortgage payments.
- **Gary occupied the premises continuously since 1973,** except for a brief period in 1991 during his divorce, and **made extensive improvements** to the house and land.
- In 1994, Gary sought to have Larry convey the land to him, but Larry refused…

Georgia: Part Performance (3)
Dobbs v. Dobbs:
270 Ga. 887; 515 S.E.2d 384; 1999

- The trial court ordered specific performance of the oral contract, citing the provisions in O.C.G.A. 23-2-131…
- That Code section reads:
- *(a) The **specific performance of a parol contract** as to land shall be decreed if the defendant admits the contract or if the contract has been **so far executed by the party seeking relief and at the instance or by the inducements of the other party that if the contract were abandoned he could not be restored to his former position.***

Georgia: Part Performance (4)
Dobbs v. Dobbs:
270 Ga. 887; 515 S.E.2d 384; 1999

- *(b) Full payment alone accepted by the vendor,…*
- *… or partial payment accompanied with possession, …*
- *…or possession alone with valuable improvements,…*
- *… **if clearly proved in each case** to have been done with reference to the parol contract, …*
- *…shall be sufficient part performance to justify a decree.*

Georgia: Part Performance (5)
Dobbs v. Dobbs:
270 Ga. 887; 515 S.E.2d 384; 1999

- O.C.G.A. 23-1-10 states that "he who would have equity must do equity and must give effect to all equitable rights of the other party respecting the subject matter of the action."
- This equitable maxim embodies both the "unclean hands" doctrine and the concept that **"one will not be permitted to take advantage of his own wrong."**
- We have stated that this maxim refers to "'an inequity which infects the cause of action so that to entertain it would be violative of conscience.'

Georgia: Part Performance (6)
Dobbs v. Dobbs:
270 Ga. 887; 515 S.E.2d 384; 1999

- Although the trial court found that Gary had not completely discharged his indebtedness, the court…
- … also found that **Gary was unaware of the existence or amount of the arrearages until Larry testified about them at trial,** …
- …primarily because of the loose financial arrangement between the brothers, and because their relationship had deteriorated such that Larry would not tell Gary the amount.
- This is not the kind of conduct that would support a finding of unclean hands.

Part Performance –Early : North Carolina (1)

Albea v. Griffin: 22 N.C. 9; 1838

- GASTON, Judge, after stating the facts as above, proceeded:
- --It is objected on the part of the defendants that by our act of 1819 **all parol contracts to convey land are void, and that no part performance can, in this State, take a parol contract out of the operation of that statute.**
- We admit this objection to be well founded, and we hold as a consequence from it that the contract being void, not only its specific performance.

Part Performance : North Carolina (3)

Duckett v. Harrison:
235 N.C. 145; 69 S.E.2d 176; 1952

- Furthermore, if it be conceded, as contended by the defendant, R. L. Harrison, that there was a parol division of the lands in controversy in 1934 and that Dora Harrison entered into possession of the premises allotted to her, collected rents therefrom, paid the taxes thereon, …
- …this would not be sufficient to prevent the operation of the statute of frauds, **since we do not recognize the doctrine of part performance in this jurisdiction**, and twenty years have not elapsed since the defendant, R. L. Harrison, contends the property was divided.

Part Performance: Massachusetts

Mass: Part Performance, Oral Contract (1)

Palumbo v. James, 266 Mass. 1 (1929)

- The agreement for the conveyance of the real estate was oral.
- No writing was signed by the defendant.
- The contention of the plaintiff is that he is entitled to specific performance because of part performance.

Mass: Part Performance, Oral Contract (2)

Palumbo v. James, 266 Mass. 1 (1929)

- **Equity will not permit the statute of frauds to become an instrument of fraud,** …
- …and to prevent injustice it will decree specific performance in favor of one who, acting on an oral agreement for the conveyance of land, enters into possession and makes substantial improvements.
- In such circumstances it would be a fraud on the purchaser to deprive him of the benefit of the contract.

Mass: Part Performance (1)

Winstanley v. Chapman, 325 Mass. 130 (1949)

- The defendants set up the statute of frauds, G. L. (Ter. Ed.) c. 259, § 1, Fourth, which provides that no action shall be brought "Upon a contract for the sale of lands, tenements or hereditaments or of any interest in or concerning them" unless the contract or some memorandum or note thereof is in writing and signed by the party to be charged therewith or his agent. It is not contended that there is any writing satisfying the statute.

Mass: Part Performance (2)
Winstanley v. Chapman, 325 Mass. 130 (1949)

- The plaintiffs rely upon the doctrine of part performance. …"The fraud most commonly treated as taking an agreement out of the statute of frauds is that which consists in setting up the statute against its performance, after the other party has been induced to make expenditures, or a change of situation in regard to the subject matter of the agreement, or upon the supposition that it was to be carried into execution,

Mass: Part Performance (3)
Winstanley v. Chapman, 325 Mass. 130 (1949)

- …and the assumption of rights thereby to be acquired; so that the refusal to complete the execution of the agreement is not merely a denial of rights which it was intended to confer, but the infliction of an unjust and unconscientious injury and loss."

Mass: Part Performance (1)
Sullivan v. Gilson, 124 N.E.3d 705 (2019)

- The Statute of Frauds generally requires that all contracts for the sale of land be in writing. G. L. c. 259, § 1. …
- However, "[a] plaintiff's detrimental reliance on, or part performance of, an oral agreement to convey property may estop the defendant from pleading the Statute of Frauds as a defense."
- Payment alone is insufficient to show part performance.
- Part performance may be demonstrated by evidence that the party physically occupied and made improvements to the property in reliance upon the agreement.

Mass: Part Performance (2)
Sullivan v. Gilson, 124 N.E.3d 705 (2019)

- Sullivan did not allege that he attempted to improve these parcels, nor does Sullivan assert on appeal that he occupied either parcel.
- Accordingly, there was no part performance and the claims are barred by the Statute of Frauds.

Mass: Part Performance (1)
Whitcomb v. Smith, 33 Mass. L. Rptr. 172 (2014)

- Whitcombs seek to enforce a written agreement whereby the Whitcombs agreed to move onto the Property with the Smiths, to expand and help maintain it, and to provide assistance to the Smiths in their senior years, in return for the Smiths' agreement eventually to transfer the Property to the Whitcombs.

Mass: Part Performance (2)
Whitcomb v. Smith, 33 Mass. L. Rptr. 172 (2014)

Payments Made by the Whitcombs	Amount
Cash Contribution for Addition Construction (Trial Ex. 9)	$ 33,000.00
Direct Payments to General Contractor (Trial Ex. 10)	$ 10,615.00
Payments for Other Improvements to Property (Trial Exs. 28-39)	$ 14,560.00

Mass: Part Performance (3)
Whitcomb v. Smith, 33 Mass. L. Rptr. 172 (2014)

Direct Mortgage Payments by Check (Trial Exs. 18, 99)	$ 36,675.00
Direct Mortgage Payments by Cash (Trial Ex. 19, 100)	$ 16,282.00
Mortgage and Expense Payments to M. Smith (Trial Ex. 20)	$ 11,784.54
Mortgage and Expense Payments to W. Smith (Trial Ex. 25)	$ 23,400.00

Mass: Part Performance (4)
Whitcomb v. Smith, 33 Mass. L. Rptr. 172 (2014)

- Considering the testimony and the record as a whole, the Court finds the evidence favoring the Whitcombs' version of underlying events to be decidedly more persuasive.
- While their performance may not have been perfect in every respect, the Whitcombs, by and large, made the payments called for in the Property Agreement from 2000 through 2008,

Mass: Part Performance (5)
Whitcomb v. Smith, 33 Mass. L. Rptr. 172 (2014)

- While neither the Smiths nor the Whitcombs actually signed the Property Agreement, Mrs. Smith is estopped from asserting the Statute of Frauds as a defense to the Whitcombs' claims based on the Whitcombs' detrimental reliance upon, and partial performance of, the Agreement.
- ("A plaintiffs detrimental reliance on, or part performance of, an oral agreement to convey property may estop the defendant from pleading the Statute of Frauds as a defense")

Mass: Part Performance (6)
Whitcomb v. Smith, 33 Mass. L. Rptr. 172 (2014)

- ***Gordon v. Anderson, 348 Mass. 787, 787 (1965)*** (oral agreement to transfer real property is binding where plaintiff gave down payment, took possession, made substantial improvements to property, and sold prior residence).

Mass: Statute & Estoppel (1)
Doshi v. Ellis, 23 Mass. L. Rptr. 683 (2008)

- In ***Cellucci v. Sun Oil Co., 2 Mass.App.Ct. 722 (1974), aff'd, 368 Mass. 811 (1975),*** the Appeals Court recognized that the estoppel doctrine may preclude the affirmative defense of the Statute of Frauds.