

ADVISORY & FINANCE COMMITTEE

The following meeting of the Advisory & Finance Committee has been posted and will be held

At: Plymouth Town Hall - Mayflower II Meeting Room
11 Lincoln Street, Plymouth, MA 02360

On: Wednesday, September 14, 2016 at 7:00PM

Items on the agenda will include but are not limited to the following.

Other discussion may include items that were not reasonably anticipated by the Chairman 48-hours in advance of the meeting posting.

Call to Order

Announcements

Public Comment

Fall Town Meeting Articles

- | | |
|--|------------------------------|
| ➤ Article 4H: Capital - Airport Delta Taxiway | Tom Maher, Airport Manager |
| ➤ Article 34: Road Improvements | Christopher Fava, Petitioner |
| ➤ Article 4B: Capital – Wastewater Facilities Assessment | Jonathan Beder, DPW Director |
| ➤ Article 4G: Capital – GPS Survey Equipment | Sid Kashi, Town Engineer |
| ➤ Article 22: Easements – Water & Resnik | “ |
| ➤ Article 24: Road Layouts | “ |
| ➤ Article 25: Easement – Taylor Ave | “ |

Old/New/Other Business

- Sub-Committee & Committee Liaison Updates

Meeting Minutes

- July 13, 2016
- August 17, 2016
- August 24, 2016
- August 31, 2016
- September 7, 2016

Public Comment

Adjournment

Next Meeting: Thursday, September 15, 2016 at 7PM in the Mayflower II Meeting Room – Town Hall

FALL ANNUAL TOWN MEETING WARRANT
October 15, 2016

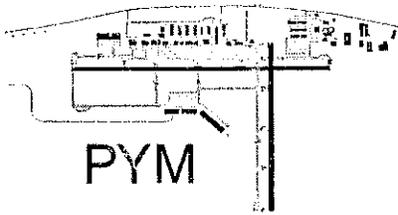
ARTICLE 4:

To see if the Town will vote to raise and appropriate, transfer from available funds or borrow a sum of money for the construction and/or repair and/or purchase and/or lease and/or replacement of departmental buildings and/or equipment and/or capital facilities and/or for feasibility studies and other types of studies for the various departments of the Town substantially as follows:

- A. Fiber Loop
- B. Wastewater Treatment Plant Audit
- C. Parking Deck
- D. Pumping Engine
- E. Plymouth Beach Revetment
- F. Plymouth Beach Sea Wall
- G. GPS Field Survey Grade equipment
- H. Airport Delta Taxiway**

or take any other action relative thereto.

BOARD OF SELECTMEN



Plymouth Municipal Airport

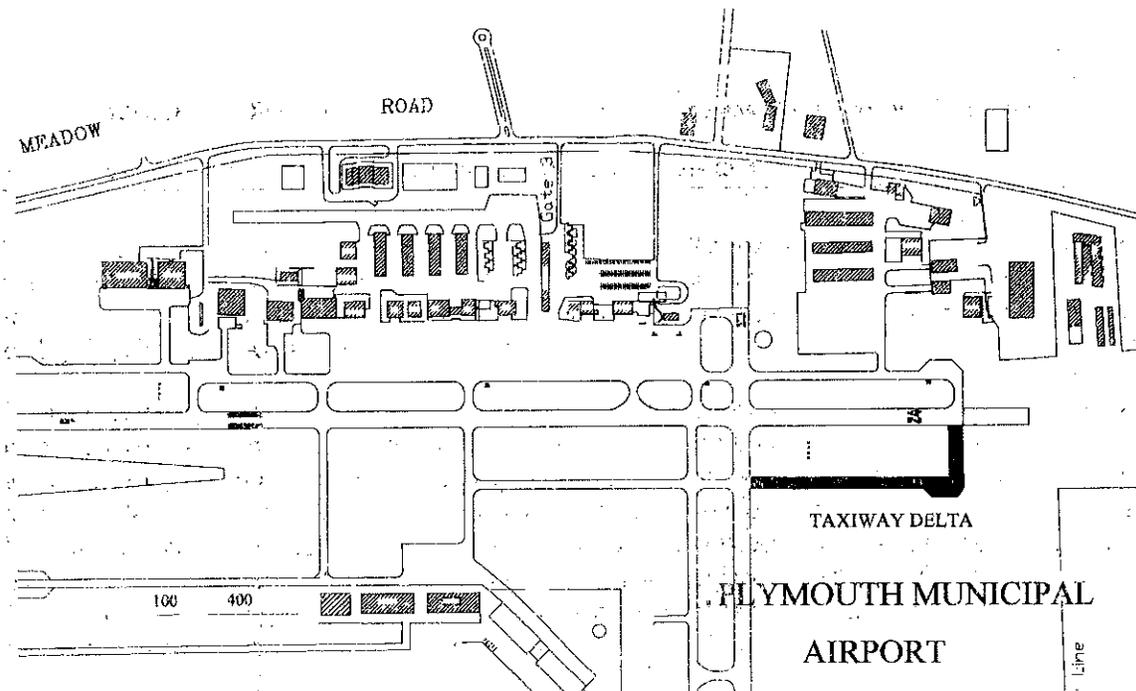
To: **Advisory and Finance**

From: **Thomas Maher, Airport Manager**

RE: **Fall Annual Town "Delta" Taxiway Capital project** Date: **September 7, 2016**

The Plymouth Airport Commission is requesting support at the Fall Annual Town meeting regarding the completion of "Delta" taxiway here at the Plymouth Municipal Airport. The project is 1.7 million total, with \$85,000 being from airport enterprise free cash or airport enterprise borrow and the balance of \$1,615,000 from FAA and MassDOT grants.

This project would connect the existing "Delata" taxiway to the runway 24 end and would correct an existing safety concern where currently aircraft based on the south side of the airport have to cross the active runway, to taxi and takeoff on runway 24. This extension would eliminate this need and allow aircraft to taxi directly to the runway 24 end without having to cross the active first. This project has been on our capital program for several years. The reason this is coming up at Fall Town meeting is that FAA just contacted us that they anticipate funding the project in Federal FY 17 which starts on 10/1/16 and we would go out to bid and have to award the bid over this Winter and in turn Spring ATM would not allow us to be under grant before April 1, 2017.



FALL ANNUAL TOWN MEETING WARRANT

October 15, 2016

ARTICLE 34:

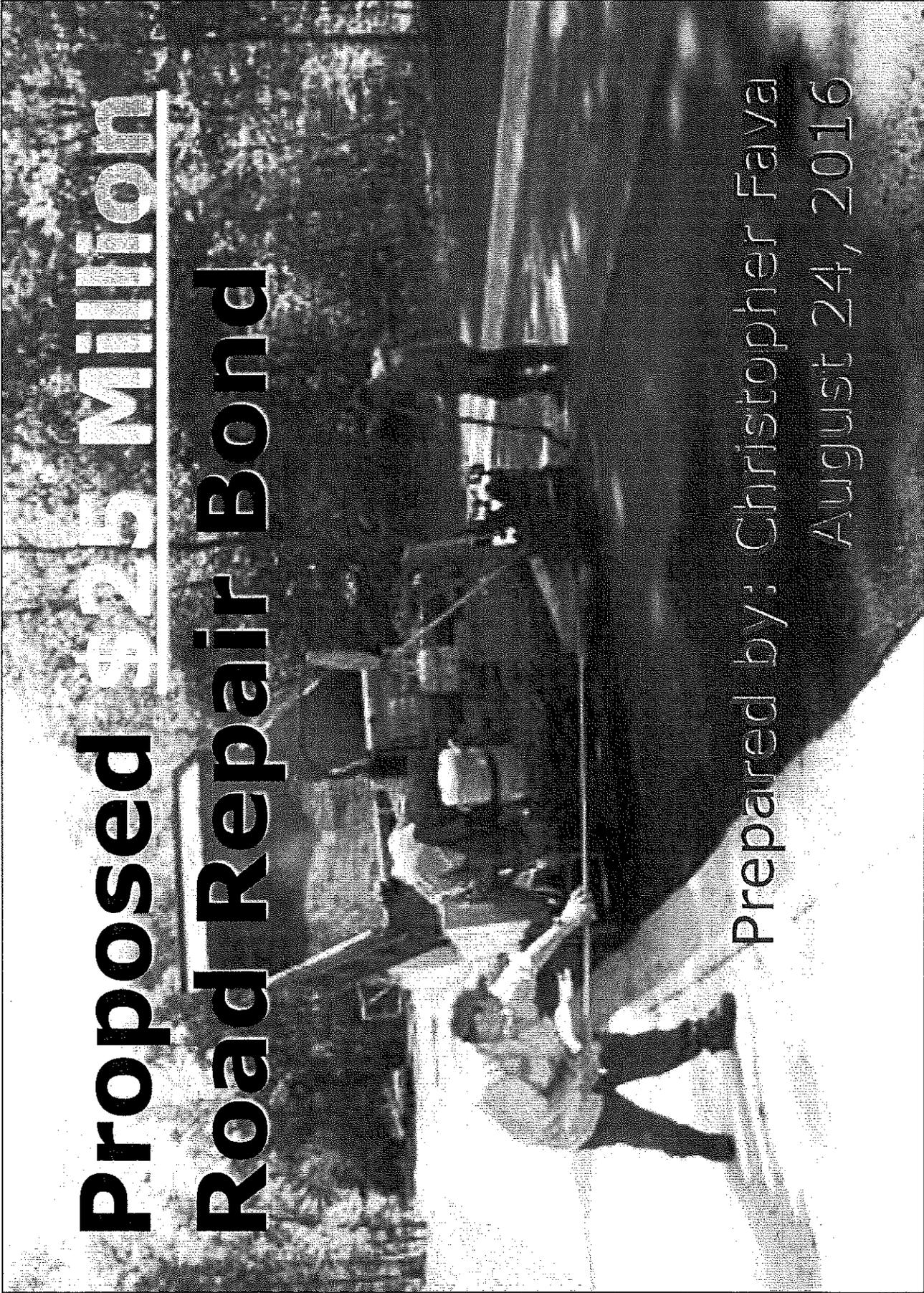
To see if the Town will vote to raise and appropriate, transfer from available funds, borrow, or otherwise fund \$25,000,000.00 in improvements to Public and Unaccepted Roads including all costs necessary and related to the following:

Resurfacing, Crack Sealing, Aggregate/or Recycled Pavement. Drainage (include engineering expenses related to water road runoff management), Pavement Markings, Guardrails, Sidewalks, Street Lighting, Traffic Control, (including signage), Berms and Curbs, Right of Way Acquisition, Bicycle Lanes/Paths, Bridges, Tree/Planting/Landscaping associated with the project or take any action relative thereto.

BY PETITION: Christopher L. Fava

Proposed \$25 Million Road Repair Bond

Prepared by: Christopher Fava
August 24, 2016

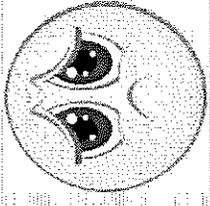


Proposed Article

To see if the Town will vote to raise and appropriate, transfer from available funds, borrow, or otherwise fund \$25,000,000.00 in improvements to Public and Unaccepted Roads including all costs necessary and related to the following:

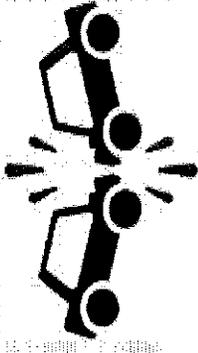
- Resurfacing
- Crack Sealing
- Aggregate/ or Recycled Pavement
- Drainage (including engineering expenses related to water road runoff management)
- Pavement Markings
- Guardrails
- Sidewalks
- Street Lighting
- Traffic Control (including signage)
- Berms and Curbs
- Right of Way Acquisition
- Bicycle Lanes/Paths
- Bridges
- Tree planting/Landscaping associated with the project

Or take any other action relative thereto...



Problems with Bad Roads

- Decreases public safety
- Roads become more difficult to use
- May cause cars to inadvertently swerve
- Increases accident rates
- Raises Vehicle operating costs
- May cause sections of the road to fail
- Causes flooding, erosion and drainage problems
- Increases overall road repair costs

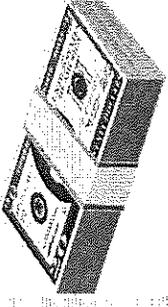


Road Repairs by Category

Currently the Town of Plymouth has 241.7 miles of public & unaccepted roads that need immediate repairs, rehabilitation, or maintenance with an estimated cost of \$134,456,390. This does not include repairs to sidewalks, bike paths, or ramps.

Repair Method	Length (mi)	Est. Cost
Reconstruction	74.6	\$ 96,466,970
Rehabilitation	90.2	\$ 27,703,560
Preservation	47.3	\$ 9,883,760
Maintenance	29.6	\$ 402,200
Totals	241.7	\$ 134,456,390

Current Roadway Budget



- The Town of Plymouth's annual roadway budget is **\$2 million**. This budget includes **75%** from State Funding (Chapter 90) money.

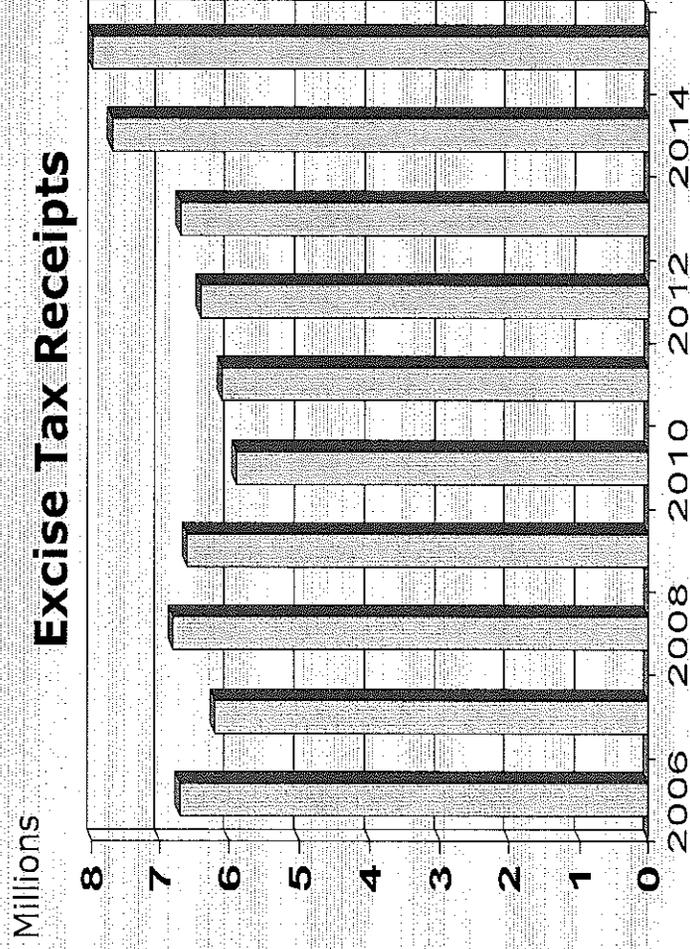
- This **limited** amount is grossly inadequate for the size of our town. Only **5.3 miles** of road repairs can be made annually.
- Roads needing repairs are rising faster than roads that need maintenance.

Annual Repairs	Length (mi)
<i>Reconstruction</i>	2.0
<i>Rehabilitation</i>	2.8
<i>Preservation</i>	0.5
Total	5.3

Motor Vehicle Excise Tax Receipts

The local excise tax was setup to allow communities to recover costs associated with local road repairs and other community costs.

During the last **10 years**, the Town of Plymouth collected almost **\$67 million** in excise tax fees yet only a minuscule amount has been used for roadway repairs



Source: Town of Plymouth Finance Department

Funding Options

Last year the Town of Plymouth collected about **\$8 million** in excise taxes.

1. Transfer some money from excise tax revenue

Approximately **\$2.388 million** in excise taxes fees could be used to fund the badly needed Road Repair Bond. Excise tax receipts will rise as buildout of the Pine Hills and Redbrook community continue.

2. Tax Levy

Would add about **\$0.26** to the tax rate based on the proposed debt schedule on the next page.

Debt Service Schedule

Town of Plymouth, Massachusetts

\$25,000,000 General Obligation Bonds, Dated March 1, 2017

Paying Bonds - Level Debt Service Structure

Interest Estimated and Subject to Change

2016 Assessed Valuation \$9,128,500,223

Debt Service Schedule

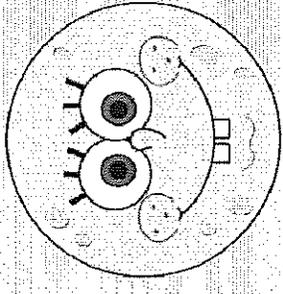
Date	Principal	Coupon	Interest	Total P+I	Tax Rate Impact
06/30/2017	-	-	-	-	-
06/30/2018	1,160,000.00	5.000%	1,250,000.00	2,410,000.00	0.26
06/30/2019	1,215,000.00	5.000%	1,192,000.00	2,407,000.00	0.26
06/30/2020	1,280,000.00	5.000%	1,131,250.00	2,411,250.00	0.26
06/30/2021	1,340,000.00	5.000%	1,067,250.00	2,407,250.00	0.26
06/30/2022	1,410,000.00	5.000%	1,000,250.00	2,410,250.00	0.26
06/30/2023	1,480,000.00	5.000%	929,750.00	2,409,750.00	0.26
06/30/2024	1,555,000.00	5.000%	855,750.00	2,410,750.00	0.26
06/30/2025	1,630,000.00	5.000%	778,000.00	2,408,000.00	0.26
06/30/2026	1,710,000.00	5.000%	696,500.00	2,406,500.00	0.26
06/30/2027	1,795,000.00	5.000%	611,000.00	2,406,000.00	0.26
06/30/2028	1,885,000.00	5.000%	521,250.00	2,406,250.00	0.26
06/30/2029	1,980,000.00	5.000%	427,000.00	2,407,000.00	0.26
06/30/2030	2,080,000.00	5.000%	328,000.00	2,408,000.00	0.26
06/30/2031	2,185,000.00	5.000%	224,000.00	2,409,000.00	0.26
06/30/2032	2,295,000.00	5.000%	114,750.00	2,409,750.00	0.26
Total	\$25,000,000.00	-	\$11,126,750.00	\$36,126,750.00	

Yield Statistics

Bond Year Dollars	\$222,535.00
Average Life	8.901 Years
Average Coupon	5.00000000%
Net Interest Cost (NIC)	5.00000000%
True Interest Cost (TIC)	5.00000000%
Bond Yield for Arbitrage Purposes	5.00000000%
All Inclusive Cost (AIC)	5.00000000%
IRS Form 8038	
Net Interest Cost	5.00000000%
Weighted Average Maturity	8.901 Years

Source: Town of Plymouth Finance Department

Benefits of Road Maintenance



- Provides smooth safe efficient travel
- Reduces risks to drivers, bicyclists and pedestrians
- Can extend the life of a road
- Reduces vehicle maintenance costs
- Reduces potential lawsuits and insurance claims cause by defective roads
- Reduces flooding, erosion, and noise
- It beautifies our community

Town of Plymouth, Massachusetts

\$25,000,000 General Obligation Bonds, Dated March 1, 2017

Paving Bonds - Level Debt Service Structure

Interest Estimated and Subject to Change

2016 Assessed Valuation \$9,128,500,223

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	Tax Rate Impact
#####	-	-	-	-	
#####	1,160,000.00	5.000%	1,250,000.00	2,410,000.00	0.26
#####	1,215,000.00	5.000%	1,192,000.00	2,407,000.00	0.26
#####	1,280,000.00	5.000%	1,131,250.00	2,411,250.00	0.26
#####	1,340,000.00	5.000%	1,067,250.00	2,407,250.00	0.26
#####	1,410,000.00	5.000%	1,000,250.00	2,410,250.00	0.26
#####	1,480,000.00	5.000%	929,750.00	2,409,750.00	0.26
#####	1,555,000.00	5.000%	855,750.00	2,410,750.00	0.26
#####	1,630,000.00	5.000%	778,000.00	2,408,000.00	0.26
#####	1,710,000.00	5.000%	696,500.00	2,406,500.00	0.26
#####	1,795,000.00	5.000%	611,000.00	2,406,000.00	0.26
#####	1,885,000.00	5.000%	521,250.00	2,406,250.00	0.26
#####	1,980,000.00	5.000%	427,000.00	2,407,000.00	0.26
#####	2,080,000.00	5.000%	328,000.00	2,408,000.00	0.26
#####	2,185,000.00	5.000%	224,000.00	2,409,000.00	0.26
#####	2,295,000.00	5.000%	114,750.00	2,409,750.00	0.26
Total	\$25,000,000.00	-	\$11,126,750.00	\$36,126,750.00	

Yield Statistics

Bond Year Dollars	\$222,535.00
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IRS Form 8038

Net Interest Cost	5.000000%
Weighted Average Maturity	8.901 Years

Town of Plymouth, Massachusetts

\$25,000,000 General Obligation Bonds, Dated March 1, 2017

Paving Bonds - Equal Principal Debt Service Structure

Interest Estimated and Subject to Change

2016 Assessed Valuation \$9,128,500,223

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	Tax Rate Impact
#####	-	-	-	-	-
#####	1,670,000.00	5.000%	1,250,000.00	2,920,000.00	0.32
#####	1,670,000.00	5.000%	1,166,500.00	2,836,500.00	0.31
#####	1,670,000.00	5.000%	1,083,000.00	2,753,000.00	0.30
#####	1,670,000.00	5.000%	999,500.00	2,669,500.00	0.29
#####	1,670,000.00	5.000%	916,000.00	2,586,000.00	0.28
#####	1,665,000.00	5.000%	832,500.00	2,497,500.00	0.27
#####	1,665,000.00	5.000%	749,250.00	2,414,250.00	0.26
#####	1,665,000.00	5.000%	666,000.00	2,331,000.00	0.26
#####	1,665,000.00	5.000%	582,750.00	2,247,750.00	0.25
#####	1,665,000.00	5.000%	499,500.00	2,164,500.00	0.24
#####	1,665,000.00	5.000%	416,250.00	2,081,250.00	0.23
#####	1,665,000.00	5.000%	333,000.00	1,998,000.00	0.22
#####	1,665,000.00	5.000%	249,750.00	1,914,750.00	0.21
#####	1,665,000.00	5.000%	166,500.00	1,831,500.00	0.20
#####	1,665,000.00	5.000%	83,250.00	1,748,250.00	0.19
Total	\$25,000,000.00	-	\$9,993,750.00	\$34,993,750.00	

Yield Statistics

Bond Year Dollars	\$199,875.00
Average Life	7.995 Years
Average Coupon	5.0000000%
Net Interest Cost (NIC)	5.0000000%
True Interest Cost (TIC)	5.0000000%
Bond Yield for Arbitrage Purposes	5.0000000%
All Inclusive Cost (AIC)	5.0000000%

IRS Form 8038

Net Interest Cost	5.0000000%
Weighted Average Maturity	7.995 Years

FALL ANNUAL TOWN MEETING WARRANT
October 15, 2016

ARTICLE 4:

To see if the Town will vote to raise and appropriate, transfer from available funds or borrow a sum of money for the construction and/or repair and/or purchase and/or lease and/or replacement of departmental buildings and/or equipment and/or capital facilities and/or for feasibility studies and other types of studies for the various departments of the Town substantially as follows:

- A. Fiber Loop
- B. Wastewater Treatment Plant Audit**
- C. Parking Deck
- D. Pumping Engine
- E. Plymouth Beach Revetment
- F. Plymouth Beach Sea Wall
- G. GPS Field Survey Grade equipment
- H. Airport Delta Taxiway

or take any other action relative thereto.

BOARD OF SELECTMEN



TOWN OF PLYMOUTH
DEPARTMENT OF PUBLIC WORKS

159 Camelot Drive
Plymouth, Massachusetts 02360

FAX: (508) 830-4165

PUBLIC WORKS DEPARTMENT

MEMO

Date: September 6, 2016

To: Advisory & Finance Committee

cc: Melissa Arrighi, Town Manager
Lynne Barrett, Finance Director
Gary Frizzell, Wastewater Manager

From: Jonathan Beden  Director of Public Works

Re: **Fall 2016 Annual Town Meeting**
Article 4B-Wastewater Treatment Plant Audit

We are requesting funds to evaluate current conditions at the Wastewater Treatment Plant and the 5 municipal lift stations which include; Holmes Point, Water Street, Hedge Road, Industrial Park, and the Long Pond Stations.

Combined, these facilities are covered under the current operation and maintenance agreement with Veolia North America, which is set to expire on June 30, 2021. All relevant disciplines will be reviewed and a risk matrix will be developed along with a preliminary planning cost estimate. This condition assessment is critical, as it will delineate any item needing to be addressed, including its value. This will also allow the town to effectively and efficiently address any deficiencies that may be observed.

The Operator (Veolia) is required to transition the Plant and all the Stations back over to the town in good working order and in compliance with all legal requirements subject to normal wear and tear, consistent with good industry practice. The proposed assessment will assist the Town in determining the current condition of the infrastructure.

The lump sum cost to perform this work is \$174,470 and is expected to take approximately 5 months to complete. Our overall Capital request is for \$200,000 should any more in-depth investigations be required. We respectfully request your support in developing a comprehensive wastewater condition assessment.





August 22, 2016

Mr. Jonathan Beder
Director, Department of Public Works
159 Camelot Drive
Plymouth, MA 02360

**SUBJECT: PROPOSAL FOR PROFESSIONAL SERVICES
WASTEWATER FACILITIES CONDITION ASSESSMENT/AUDIT**

Dear Mr. Beder:

We appreciate the opportunity to assist the Town with conducting a condition assessment/audit of its wastewater facilities, including the wastewater treatment plant (WWTP) and five (5) wastewater pump stations, including Water Street, Holmes Point, Hedge Road, Industrial Park, and Long Pond Road. The goal of the project is to document existing conditions that will be used as a baseline to establish future capital improvement needs and approaches to operation and maintenance.

Kleinfelder's proposes to evaluate the condition of these facilities utilizing a comprehensive multi-disciplinary approach consisting of Kleinfelder experts as well as a team of specialize sub-consultants. Disciplines represented include wastewater process engineering; Supervisory Control and Data Acquisition (SCADA); architecture; structural engineering; heating, ventilation and cooling (HVAC); electrical; plumbing and fire protection. In addition, Kleinfelder proposes to conduct a building code review to assess gaps between the facilities and current building, fire protection, egress and life safety codes. The evaluation from each discipline will be consolidated into an overall risk matrix of the wastewater facilities. Further, a preliminary planning level cost estimate will be prepared that would address the deficiencies observed.

Kleinfelder will participate in up to three (3) meetings with the Town to convey the findings of this study. Further, Kleinfelder is available to assist the Town in future phases of evaluation should there be such a need.

This proposal is based on our discussions to date with you Gary and Chad, as well as our site visit, and consists of our proposed Scope of Work, Schedule and Compensation for services rendered, as detailed in the following sections.

SECTION 1 - SCOPE OF WORK

1) Preliminary Tasks

- a) Develop List of Information (Data, Plans, Reports, etc.) Needed and Obtain from Town
- b) Review, summarize, and tabulate acquired Information

- c) Kick-Off Meeting with Town to review Scope, Schedule, Deliverable
- d) Develop Methodology for Conditional Assessment
- e) Develop Forms for Field Assessment
- f) Develop Asset Inventory and pre-populate Field Assessment forms
- g) Develop a detailed process flow diagram
- h) Conduct Staff Interviews to understand condition, design, and redundancy concerns

2) Conduct Field Assessment

- a) Coordination with Field Assessment Team, including sub-consultants
- b) Perform WWTP and Pump Station Field Assessment (the following disciplines)
 - i) Wastewater Process and Mechanical
 - ii) SCADA, Instrumentation and Control
 - (1) Age and condition of SCADA computers
 - (2) Version/revision/support status of all software and OS
 - (3) Network architecture
 - (4) Age, FRN, and legacy status of PLC hardware
 - (5) Accuracy/adequacy/viability of all process instrumentation
 - (6) Assessment of alarm notification/response system
 - (7) Failure analysis of critical components/hardness assessment
 - iii) Building Condition and Code Compliance
 - (1) Architectural
 - (2) Structural
 - (3) HVAC / Plumbing / Fire Protection
 - (4) Electrical (Power, Lighting, Standby Power)
 - (5) Building Code Review (building, fire, life safety and accessibility)
- c) Corrosion Assessment of Inlet Tank (*one side only*) by dewatering tank and entering for visual inspection:
 - i) Review existing information and conduct staff interviews
 - ii) Perform a field inspection of the concrete inlet tank not previously rehabilitated.
 - iii) Inspections may consist of the following:
 - 1. Visual inspection; and
 - 2. Sounding tests.
 - iv) Review data and assess the condition of the concrete structures.
- d) Determine Process Equipment in need of further evaluation/inspection
- e) Coordination with Manufacturer Service Representatives to conduct follow-up evaluations
- f) Conduct Return Visits with Manufacturer's Representatives to perform more in-depth evaluations. Up to Five (5) follow-up site visits are assumed for budgeting purposes and include the following processes:
 - i) SBR Control and Equipment review
 - ii) Water Street pump station pumping systems
 - iii) Standby generators at WWTP and pumping stations
 - iv) Gravity Belt Thickener
 - v) One Process to be determined
- g) Compile and Archive Field Forms and Photographs
- h) Summarize WWTP and pump station general conditions and deficiencies

- 3) **Pump Station Force Main Corrosion Assessment (four (4) force mains)**
 - a) Review existing information and conduct staff interviews
 - b) Perform a site walk of each force main and identify potential access points (manholes) and test pit locations.
 - c) Coordination with the Town to dig test pits, and coordination with corrosion specialist.
 - d) Perform laboratory tests of soils to assess external corrosivity.
 - e) Perform direct visual inspection to assess the condition of the pipe and measure remaining wall thickness using ultrasonic testing (up to three locations per force main).
 - f) Review data and assess the condition of each force main.

- 4) **Risk Assessment of the Condition Findings**
 - a) Conduct a Workshop with Town to review findings from Prior Tasks
 - b) Review of CMMS program, preventive maintenance schedule and maintenance history of equipment
 - c) Prepare Risk and Condition Assessment
 - i) Develop numerical Condition Rating Criteria
 - ii) Develop Criticality Weighting Criteria
 - iii) Develop Risk Based Asset Matrix (Equipment, Buildings, etc.)
 - iv) Complete the Prioritized Asset Matrix Condition Assessment
 - d) Determine best alternative to address deficiencies – *NOTE: Under this phase of the work, we will not consider alternative technologies*
 - i) Do Nothing/run to failure
 - ii) Refurbish/rehabilitate
 - iii) Replace In Kind
 - e) Develop preliminary planning level costs to address deficiencies
 - f) List operational or maintenance concerns discovered from Field Assessment
 - g) Summarize findings, recommendations and Draft Report
 - h) Conduct a Workshop with Town to review Draft Report
 - i) Finalize Report

- 5) **Meetings with Town**
 - a) Prepare for and attend up to three (3) meetings with the Town as follows:
 - i) (1) Board of Selectmen Executive Session
 - ii) (1) Public Presentation at Board of Selectmen Meeting
 - iii) (1) Additional Board of Selectmen (or others) Meeting

- 6) **Project Management and Administration**
 - a) Develop agreements with sub-consultants
 - b) Monthly status report and invoicing
 - c) Project coordination and communications

DELIVERABLES

1. Presentations for Public Meetings
2. Final Report summarizing findings from the audit and preliminary planning level costs to address deficiencies

SCOPE OF WORK CLARIFICATIONS AND DETAILS:

1. Town will provide Kleinfelder a digital asset list exported from the Town's CMMS database.
2. This phase of the work will not analyze alternative solutions. However, if appropriate, a cost range to implement a variety of solutions may be developed to address a particular deficiency.
3. Where access to certain areas is infeasible, we will make assumptions of condition based on other observations made of similar equipment/facilities and conditions.
4. Architectural and structural assessments of buildings and structures will not include drilling, coring, sampling or testing to determine deficiencies, deteriorations, or remaining concrete wall thickness over rebar, unless explicitly described above. Assessment will be made on visual observations. Based on the findings, we may recommend further investigations as part of a future phase.
5. The following assumptions are made for pricing of the force main corrosion assessment. These assumptions are subject to revision upon review of force main as-built records which were not available during preparation of this proposal:
 - o No corrosion assessment of the Water Street Pump Station force main will be performed since it is being replaced.
 - o Town will provide excavator / operator for test pits related to FM corrosion analysis. Test pits will be pre-dug prior to the corrosion evaluation in order to maximize the time of the evaluator on site.
 - o Three test pits will be dug for each force main.
 - o 2 days will be needed for assessment of each force main, for 8 days total field evaluation time.
 - o 1 soil sample will be analyzed for each test pit (12 in total).
6. In cases where multiple tanks or structures exist (SBR tanks for example), we will assess the condition of one tank only and assume the remaining tanks are of a similar condition.
7. Town staff may be requested to dewater tanks and structures or operate equipment to make access available for evaluations.
8. Town will directly pay for police details, if any.
9. Potential future work tasks are identified below:
 - o Condition assessment follow-up where more in depth investigations are warranted.
 - o Develop WWTP staffing plan.
 - o Develop WWTP process model.
 - o Evaluate wastewater process redundancy needs.
 - o Review WWTP operations for potential O&M cost savings.
 - o Assess alternative wastewater technologies for potential cost savings.
 - o Review contract operations agreement relative to the results of this condition assessment.

SECTION 2 - SCHEDULE

We are prepared to commence work under this proposal immediately upon execution of an Agreement between the Town and Kleinfelder. The schedule below shows approximately five (5) months to complete the project, not including the subsequent meetings. We will keep the Town fully apprised of the project status as work progresses.

TASK	TASK DESCRIPTION	2016			2017			
		OCT	NOV	DEC	JAN	FEB	MAR	APR
0	Notice to Proceed	█						
1	Preliminary Tasks	█	█					
2	Conduct Field Assessment		█	█				
3	Pump Station Force Main Corrosion Assessment				█	█		
4	Risk Assessment of the Conditions						█	█
5	Town Meetings						█	█
6	Project Management and Administration		●					●

SECTION 3 - COMPENSATION

We propose to provide services rendered under this proposal on the basis of the lump sum amount indicated below.

Task	Description	Hours	Labor	Expenses	Subconsultants	Total
1	Preliminary Tasks	52	\$7,860	\$200	\$0	\$8,060
2	Conduct Field Assessment	202	\$30,360	\$970	\$26,000	\$57,330
3	FM Corrosion Assessment	20	\$4,340	\$150	\$37,800	\$42,290
4	Risk Assessment	162	\$23,390	\$350	\$18,700	\$42,440
5	Town Meetings	42	\$8,930	\$430	\$0	\$9,360
6	Project Management & Admin	80	\$14,940	\$50	\$0	\$14,990
PROJECT TOTAL		558	\$89,820	\$2,150	\$82,500	\$174,470

We hope you find this proposal meets the needs of your project. We look forward to working with you, Gary and Chad. Please contact us should you have any questions on this proposal.

Sincerely,

KLEINFELDER



David T. Peterson, P.E.
Project Manager



Mark J. Thompson, P.E.
Principal-In-Charge

cc: File

FALL ANNUAL TOWN MEETING WARRANT
October 15, 2016

ARTICLE 4:

To see if the Town will vote to raise and appropriate, transfer from available funds or borrow a sum of money for the construction and/or repair and/or purchase and/or lease and/or replacement of departmental buildings and/or equipment and/or capital facilities and/or for feasibility studies and other types of studies for the various departments of the Town substantially as follows:

- A. Fiber Loop
- B. Wastewater Treatment Plant Audit
- C. Parking Deck
- D. Pumping Engine
- E. Plymouth Beach Revetment
- F. Plymouth Beach Sea Wall
- G. GPS Field Survey Grade equipment**
- H. Airport Delta Taxiway

or take any other action relative thereto.

BOARD OF SELECTMEN



TOWN OF PLYMOUTH

Department of Public Works
Engineering Division
11 Lincoln Street
Plymouth, Massachusetts 02360

To: ADVISORY AND FINANCE COMMITTEE

From: Sid Kashi, P.E., Town Engineer *S.K.*

Through: Jonathan Beder, Director of Public Works

CC: Melissa Arrighi, Town Manager
Dennis Westgate, Asst. DPW Director

Date: September 7, 2016

Subject: 2016 Fall Annual Town Meeting
Article 4G
Replace GPS Field Survey Grade Equipment

We were able to find out after experiencing poor performance/inconsistent data logs and trouble-shooting/ research that the GPS Equipment we have been using for 16 years is officially obsolete. The receiver unit is permanently unable to interpret satellite data and the manufacturer (Trimble) refers to this equipment as “long obsolete and end of service” (see attached). Our surveying instrument needs to be replaced. The manufacturer is recommending replacing the equipment since there is no technical solution available to correct the problem. The surveying instrument will replace existing one that we have now.

Encl. : Support Note from Manufacturer

SUPPORT NOTE

JANUARY 2016

TRIMBLE EMPLOYEE CONFIDENTIAL

TRIMBLE 4700/4800 GPS RECEIVERS WILL STOP WORKING PROPERLY STARTING FEBRUARY 14, 2016

Summary

On February 14, 2016, Trimble 4700 and 4800 GPS receivers, that are long obsolete and end of service, will start experiencing erratic and unreliable behavior for time and date reporting. As those receivers will interpret the GPS time in error by 1024 weeks, receiver data outputs will have the wrong time reference. This will negatively impact subsequent systems that are communicating with that receiver, including the rejection of data packages. Real-Time Kinematic operation (RTK) operation is not expected to continue working properly.

Newer Trimble GPS/GNSS receivers types, including Trimble 5700/R5/R7/NetR9 Geospatial/NetRS/NetR5, Trimble 5800/R2/R4/R6/R8/R8s/R10/R10LT with current firmware are not impacted by this.

Resolution

Unfortunately, there is no technical solution available for for Trimble 4700 and 4800 GPS receivers to correct this issue. For Trimble 4700/4800 GPS receivers still in use, please work with the end-user on a receiver replacement solution towards a new or more recent GNSS receiver system.

This document is for informational purposes only and is not a legally binding agreement or offer. Trimble makes no warranties and assumes no obligations or liabilities hereunder.

Geospatial Division, 10368 Westmoor Drive, Westminster, CO 80021, USA

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<http://surveypartners.trimble.com>

FALL ANNUAL TOWN MEETING WARRANT
October 15, 2016

ARTICLE 22 :

To see if the Town will vote to accept and allow the alteration of the layout as a public way of the following streets or portions thereof as ordered by the Board of Selectmen and reported to the Town, and as shown on plans on file with the Town Clerk; and further to authorize the Board of Selectmen to acquire by gift, purchase or eminent domain, upon such terms and conditions as it deems appropriate, such interests in land within said altered layout and abutting lands sufficient to use said ways for all purposes for which public ways are used in the Town of Plymouth, and to raise and appropriate, transfer from available funds, or borrow a sum of money for this purpose and any expenses related thereto; and to authorize the Board of Selectmen to enter into all agreements and take all related actions necessary or appropriate to carry out such acquisition or take any other action relative thereto

Resnik Road (portion of)

Water Street (portion of)

BOARD OF SELECTMEN

TOWN OF PLYMOUTH

Department of Public Works
Engineering Division
11 Lincoln Street
Plymouth, Massachusetts 02360

MEMO

TO: ADVISORY AND FINANCE COMMITTEE

FROM: SID KASHI, P.E., TOWN ENGINEER *(S.K.)*

Through: JONATHAN BEDER, DIRECTOR OF PUBLIC WORKS

CC: MELISSA ARRIGHI, TOWN MANAGER

**SUBJECT: 2016 FALL ANNUAL TOWN MEETING
ARTICLE 22 EXPLANATION
ACCEPTANCE OF EASEMENT (VICINITY OF WATER STREET
CAFE) FOR HIGHWAY PURPOSES AND ALTER A PORTION OF
WATER STREET**

DATE: SEPTEMBER 7, 2016

The Town will be improving Water Street infrastructure as part of preparation for the 400th Anniversary. The easement will allow the Town to utilize this area for widening the sidewalk and roadway. The property owner has agreed to grant the Town easement for Highway Purposes.

The easement requires Town Meeting Action in order to authorize the Board of Selectmen to accept the easement.

The acceptance of the easement will necessitate the alteration of the Layout and allow the easement to become part of the Layout.

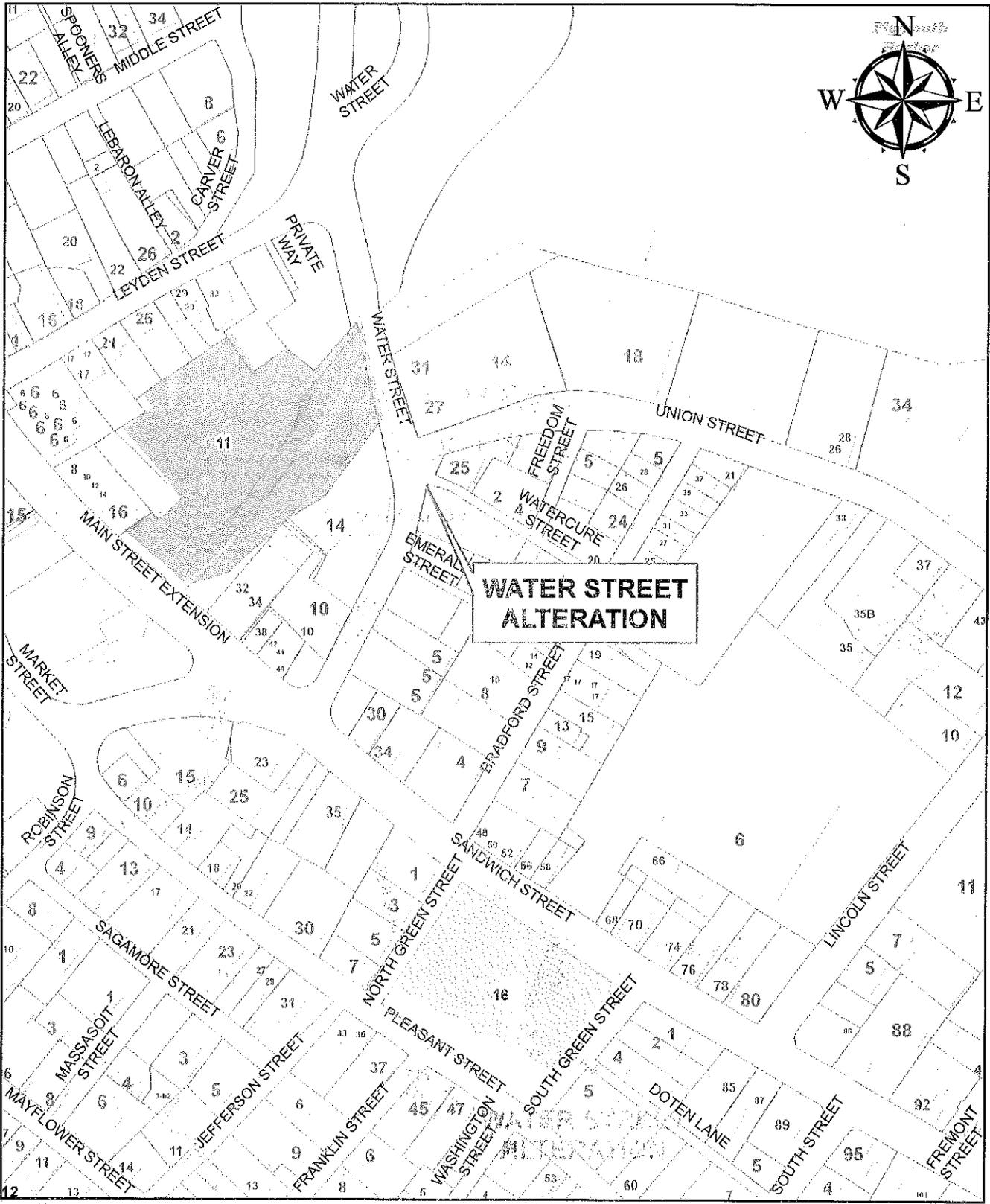
There is no need for funding this Article.

The DPW-Engineering Division recommends that the Advisory and Finance Committee vote to approve and support Article 22 as presented.

2016 FALL TOWN MEETING LOCUS MAP

ARTICLE 22:
DPW ENGINEERING - WATER STREET ALTERATION

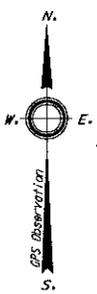
PLAT 20



PREPARED BY THE PLYMOUTH ENGINEERING DIVISION

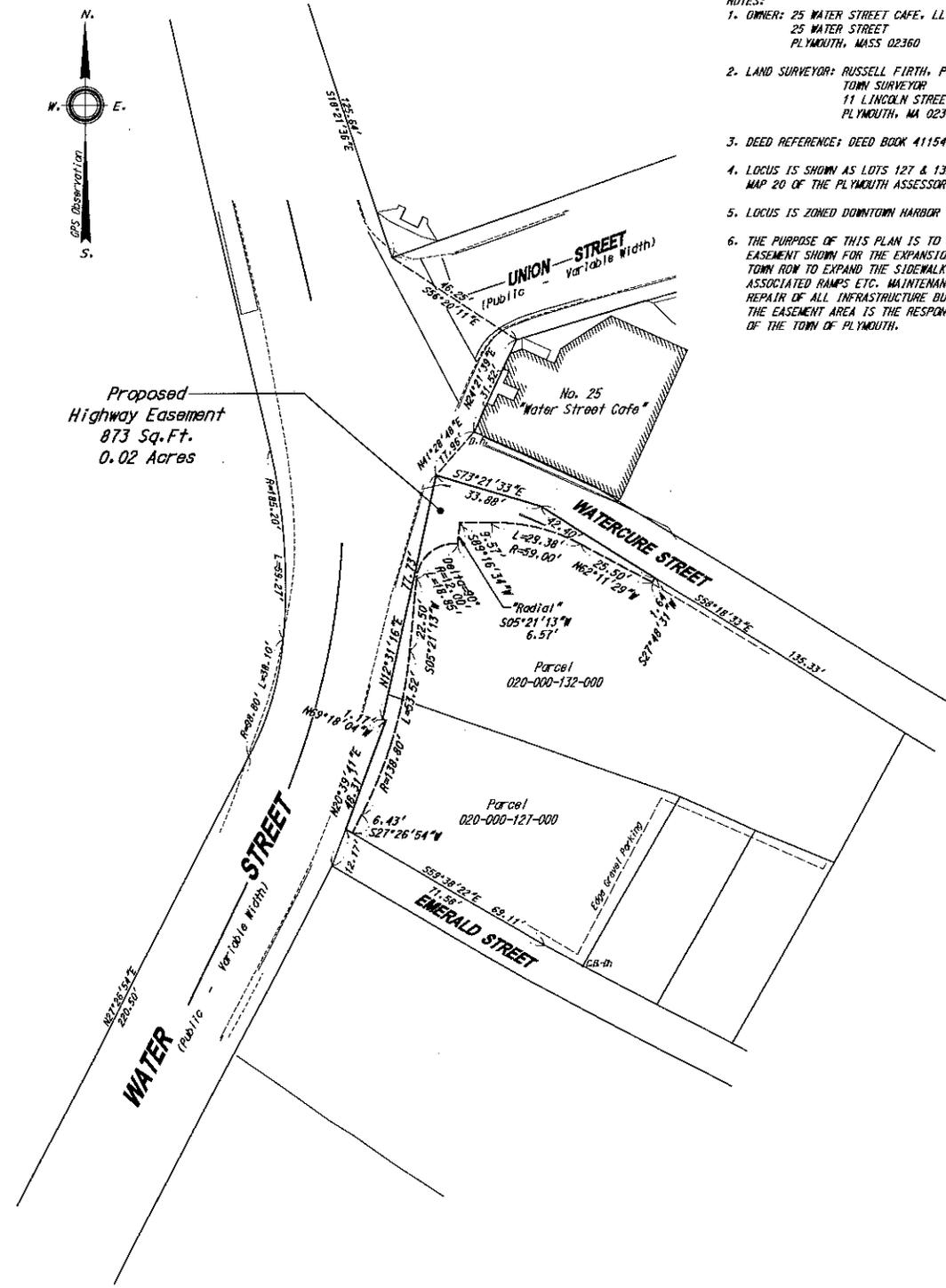
200 0 200 400

SCALE IN FEET



- NOTES:
1. OWNER: 25 WATER STREET CAFE, LLC
25 WATER STREET
PLYMOUTH, MASS 02360
 2. LAND SURVEYOR: RUSSELL FIRTH, P.L.S.
TOWN SURVEYOR
11 LINCOLN STREET
PLYMOUTH, MA 02360
 3. DEED REFERENCE: DEED BOOK 41154 PAGE 170.
 4. LOCUS IS SHOWN AS LOTS 127 & 132 ON
MAP 20 OF THE PLYMOUTH ASSESSOR'S MAPS.
 5. LOCUS IS ZONED DOWNTOWN HARBOR "DH".
 6. THE PURPOSE OF THIS PLAN IS TO CREATE THE
EASEMENT SHOWN FOR THE EXPANSION OF THE
TOWN ROW TO EXPAND THE SIDEWALK AND
ASSOCIATED RAMPS ETC. MAINTENANCE AND
REPAIR OF ALL INFRASTRUCTURE BUILT WITHIN
THE EASEMENT AREA IS THE RESPONSIBILITY
OF THE TOWN OF PLYMOUTH.

Proposed
Highway Easement
873 Sq.Ft.
0.02 Acres



**PROPOSED
HIGHWAY EASEMENT
THROUGH LAND OF
25 WATER STREET CAFE, LLC
PLYMOUTH, MASSACHUSETTS**

Prepared for: The Town of Plymouth

Scale: 20 feet to an inch August 10, 2016
PLYMOUTH DEPT. OF PUBLIC WORKS - ENGINEERING DIVISION
Russell A. Firth, P.L.S. Town Surveyor



Graphic Scale
FOR REGISTRY USE ONLY

I hereby certify that the property lines shown on this plan are the lines dividing existing ownership, 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 division of existing ownership or for new ways are shown.

I also certify that this plan has been prepared in conformity with the rules and regulations of the Registry of Deeds of the Commonwealth of Massachusetts.

**INFORMATIONAL
PRINT**

Date Professional Land Surveyor

TOWN OF PLYMOUTH

Department of Public Works
Engineering Division
11 Lincoln Street
Plymouth, Massachusetts 02360

MEMO

TO: ADVISORY AND FINANCE COMMITTEE

FROM: SID KASHI, P.E., TOWN ENGINEER *(S.K.)*

Through: JONATHAN BEDER, DIRECTOR OF PUBLIC WORKS

CC: MELISSA ARRIGHI, TOWN MANAGER

**SUBJECT: 2016 FALL ANNUAL TOWN MEETING
ARTICLE 22 EXPLANATION
ACCEPTANCE OF EASEMENT (VICINITY OF RESNIK ROAD, AND
INDUSTRIAL PARK ROAD) FOR HIGHWAY PURPOSES AND
ALTER A PORTION OF RESNIK ROAD**

DATE: SEPTEMBER 7, 2016

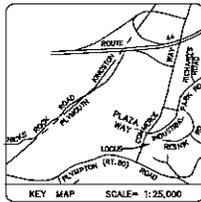
The property owner has made roadway improvements to Resnik Road. Parts of the roadway infrastructure are located outside of the roadway layout. The property owner has agreed to grant the Town easement for Highway Purposes.

The easement requires Town Meeting Action in order to authorize the Board of Selectmen to accept the easement.

The acceptance of the easement will necessitate the alteration of the Layout and allow the easement to become part of the Layout.

There is no need for funding this Article.

The DPW-Engineering Division recommends that the Advisory and Finance Committee vote to approve and support Article 22 as presented.



RESERVED FOR REGISTRY USE ONLY

NOTES:

- OWNER: MPT 44 LLC, C/O JACK SHIELDS, 25 ROCKWOOD ROAD, MARSHFIELD, MASSACHUSETTS 02050
 - CLIENT: HENRY A. STOUT, 100 ARMSTRONG ROAD, UNIT 206, PLYMOUTH, MASSACHUSETTS 02360
 - PROFESSIONAL LAND SURVEYOR: PETER E. HALE, P.L.S., ASSOCIATED ENGINEERS OF PLYMOUTH, INC., 81 SAMOSET STREET, PLYMOUTH, MASSACHUSETTS 02360
 - DEED TO PREMISES IS RECORDED AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS IN BOOK 32751, PAGE 2.
 - PREMISES IS IDENTIFIED AS PARCEL NUMBER 103-000-014K-123 BY THE TOWN OF PLYMOUTH ASSESSORS.
 - PREMISES IS ZONED LIGHT INDUSTRIAL (LI).
 - THE SOLE PURPOSE OF THIS PLAN IS TO DELINEATE A PROPOSED EASEMENT OVER THE NORTHEAST CORNER OF THE SUBJECT PREMISES. USE, REPRODUCTION OR DISTRIBUTION OF THIS PLAN OR THE INFORMATION HEREON FOR OTHER THAN THE FOREGOING STATED PURPOSE IS PROHIBITED.
- THIS PLAN IS VALID ONLY WITH THE ORIGINAL SEAL AND SIGNATURE OF THE LICENSED PREPARER.
- REFERENCE IS HEREBY MADE TO PLAN NO. 801 OF 2004 FOR ADDITIONAL BOUNDARY CONTROL INFORMATION.

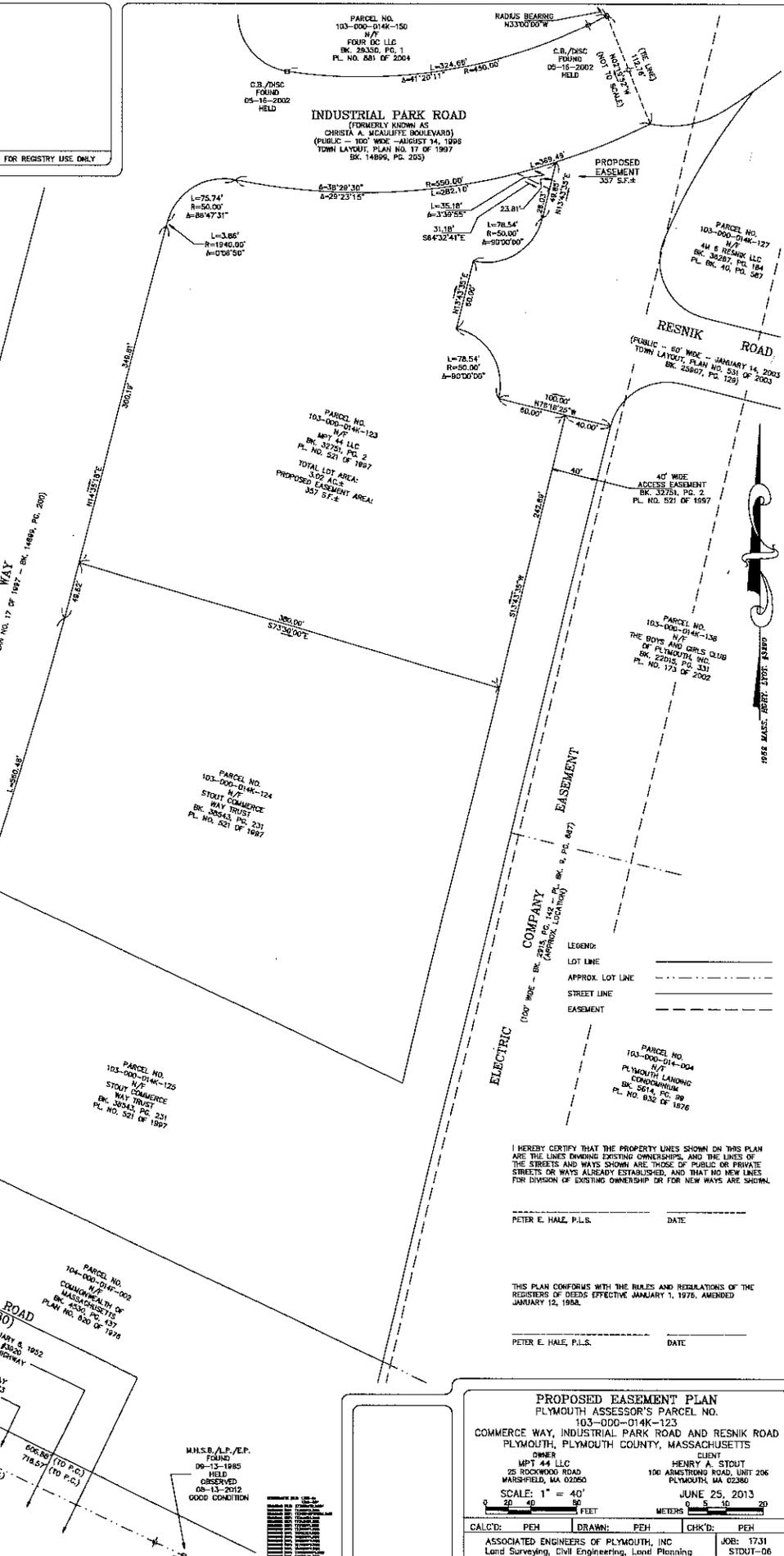
PARCEL NO. 103-000-014K-123
MPT 44 LLC
BK. 32751, PG. 2
PL. NO. 521 OF 1997

PARCEL NO. 103-000-014K-124
STOUT W/F
WAY COMMERCIAL TRUST
BK. 30541, PG. 231
PL. NO. 521 OF 1997

PARCEL NO. 104-000-014K-002
COMMONWEALTH OF MASSACHUSETTS
BK. 30530, PG. 137
PL. NO. 820 OF 1979

PARCEL NO. 103-000-014K-123
MPT 44 LLC
BK. 32751, PG. 2
PL. NO. 521 OF 1997

PARCEL NO. 103-000-014K-124
STOUT W/F
WAY COMMERCIAL TRUST
BK. 30541, PG. 231
PL. NO. 521 OF 1997



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

PETER E. HALE, P.L.S. DATE

THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS EFFECTIVE JANUARY 1, 1976, AMENDED JANUARY 12, 1988.

PETER E. HALE, P.L.S. DATE

PROPOSED EASEMENT PLAN
PLYMOUTH ASSESSOR'S PARCEL NO. 103-000-014K-123
COMMERCIAL WAY, INDUSTRIAL PARK ROAD, AND RESNIK ROAD
PLYMOUTH, PLYMOUTH COUNTY, MASSACHUSETTS

OWNER: MPT 44 LLC, 25 ROCKWOOD ROAD, MARSHFIELD, MA 02050
CLIENT: HENRY A. STOUT, 100 ARMSTRONG ROAD, UNIT 206, PLYMOUTH, MA 02360

SCALE: 1" = 40'
JUNE 25, 2013

CALC'D: PEH DRAWN: PEH CHK'D: PEH

ASSOCIATED ENGINEERS OF PLYMOUTH, INC.
Land Surveying, Civil Engineering, Land Planning
81 Samoset Street, Plymouth, MA 02068 747-0058

JOB: 1731
STUD: 06
ONE SHEET

M.H.S.B./L.P./E.P. FOUND HELD OBSERVED GOOD CONDITION

08-13-1985	FOUND
07-24-1987	FOUND
09-24-2001	FOUND
08-13-2012	FOUND
09-13-1985	FOUND
07-24-1987	FOUND
09-24-2001	FOUND
08-13-2012	FOUND

FALL ANNUAL TOWN MEETING WARRANT
October 15, 2016

ARTICLE 24 :

To see if the Town will vote to accept and allow the layout as a public way of the following street or portions thereof as laid out by the Board of Selectmen and reported to the Town, and as shown on plans on file with the Town Clerk; and further to authorize the Board of Selectmen to acquire by gift, purchase or eminent domain, upon such terms and conditions as it deems appropriate, such interests in land within said layout and abutting lands sufficient to use said ways for all purposes for which public ways are used in the Town of Plymouth, and to raise and appropriate, transfer from available funds, or borrow a sum of money for this purpose and any expenses related thereto; and to authorize the Board of Selectmen to enter into all agreements and take all related actions necessary or appropriate to carry out such acquisition or take any other action relative thereto

Loring Boulevard
Commerce Way (portion of)
Carver Road (portion of)

BOARD OF SELECTMEN



TOWN OF PLYMOUTH

Department of Public Works
Engineering Division
11 Lincoln Street
Plymouth, Massachusetts 02360

TO: ADVISORY AND FINANCE COMMITTEE

FROM: SID KASHI, P. E. *SK*
TOWN ENGINEER

Through: JONATHAN BEDER, DIRECTOR OF PUBLIC WORKS

CC: MELISSA ARRIGHI, TOWN MANAGER

DATE: SEPTEMBER 7, 2016

**SUBJECT: STREET LAYOUT / LAYOUT ALTERATION HEARING
2016 FALL ANNUAL TOWN MEETING – ARTICLE 24**

This year the following streets being proposed for layout / layout alteration and acceptance as a Town way:

LORING BOULEVARD
COMMERCE WAY
CARVER ROAD
WATER ST – ALTERATION
RESNIK ROAD - ALTERATION

This package contains a brief synopsis of the location being considered, and a locus map of the area.

Representatives of the Engineering Division will be available on September 14, 2016, to present the materials and answer any questions that you may have.

The D.P.W. recommends that the Advisory and Finance Committee members vote to approve and support Article 24 as presented.

Encl: Locus maps
A brief synopsis of the locations
Layout / Layout Alteration Plans

BRIEF SYNOPSIS OF EACH LOCATION

1. LORNING BOULEVARD (+ / - 1,040 feet) - ROADWAY LAYOUT

This Article will allow the Town to accept the entrance way of Cordage Park from Court Street to the MBTA right of way.

The acceptance of this Layout will allow the State to grant the Town funding for construction of roadway.

In order to support the project, Cordage has agreed to provide the design drawings, and construction plans, as well as coordinate with the Town on the construction and oversight of the project.

The project includes Engineering, Permitting, and Final Construction of the roadway. Improved sidewalks, lighting, signs, and pavement markings will be provided in conjunction with the Road Improvements.

2. COMMERCE WAY (a portion of) (+ / - 2,325 feet) - ROADWAY LAYOUT

Commerce Way is connecting Plympton Road (Route 80) to Carver Road. The road has been built as part of the Cranberry Crescent project on their land.

The acceptance of this roadway will improve fire and police responses in the area and will benefit the overall transportation network system in Town.

3. CARVER ROAD (+ / - 1,500 feet) - ROADWAY LAYOUT

The property owner of Cranberry Crescent Shopping Center (Cranberry Crescent) sought and received the approval of the Planning Board for his subdivision plan. The owner of Cranberry Crescent granted the Town the easement that was necessary for highway purposes. In addition, the owner of Cranberry Crescent has improved the section of Carver Road, which is located in front of his property. The section of Carver Road abutting Cranberry Crescent is currently designated as "Used & Maintained". There is no written layout of this "Used & Maintained" section of Carver Road.

4. WATER STREET - ROADWAY LAYOUT ALTERATION

The Town will be improving Water Street infrastructure as part of preparation for the 400th Anniversary. The easement will allow the Town to utilize this area for widening the sidewalk and roadway. The property owner has agreed to grant the Town easement for Highway Purposes.

The easement requires Town Meeting Action in order to authorize the Board of Selectmen to accept the easement.

The acceptance of the easement will necessitate the alteration of the Layout and allow the easement to become part of the Layout.

5. RESNIK ROAD – ROADWAY LAYOUT ALTERATION

The property owner has made roadway improvements to Resnik Road. Parts of the roadway infrastructure are located outside of the roadway layout. The property owner has agreed to grant the Town easement for Highway Purposes.

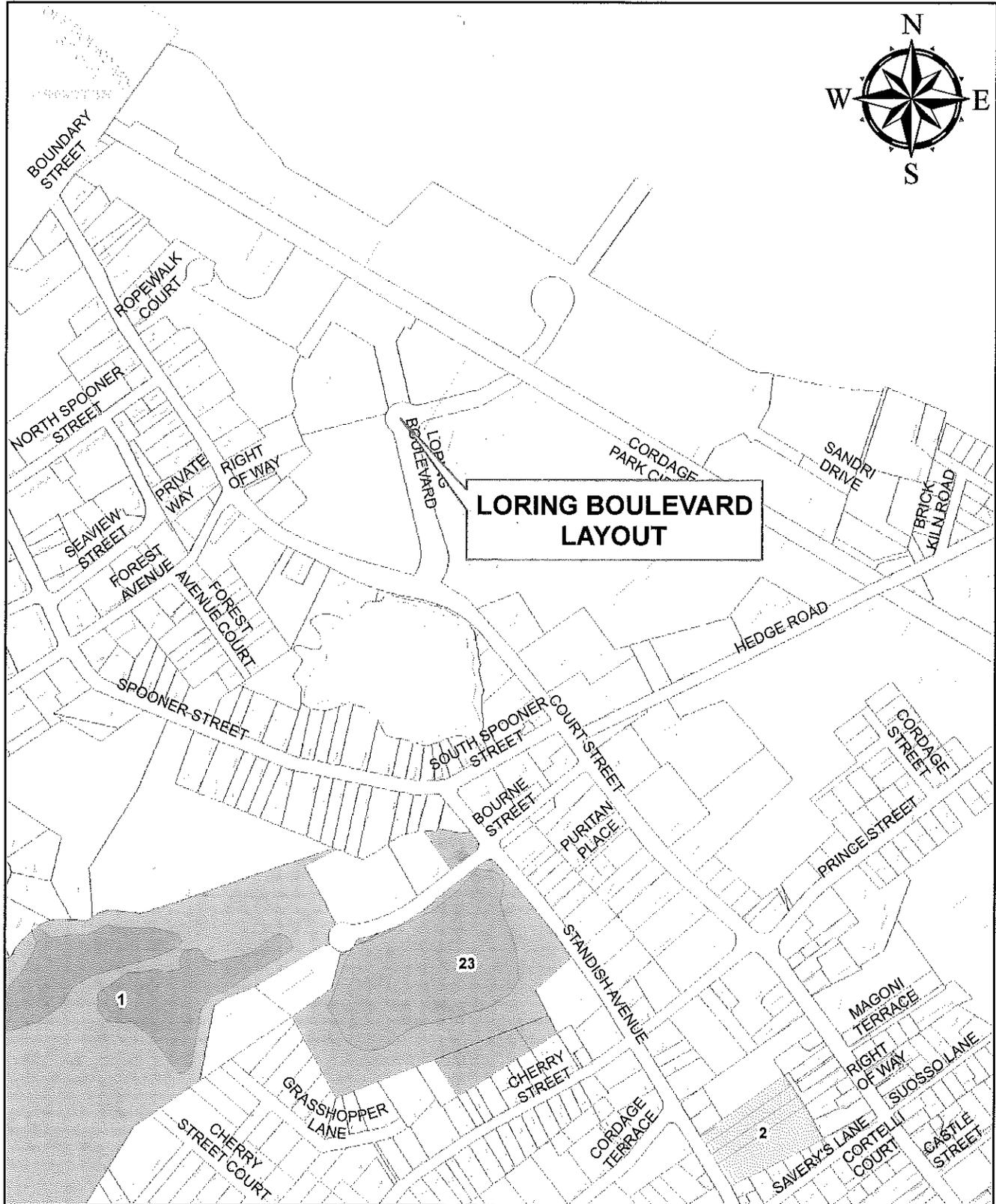
The easement requires Town Meeting Action in order to authorize the Board of Selectmen to accept the easement.

The acceptance of the easement will necessitate the alteration of the Layout and allow the easement to become part of the Layout.

2016 FALL TOWN MEETING LOCUS MAP

ARTICLE 24:
DPW ENGINEERING - LORING BOULEVARD LAYOUT

PLAT 1



PREPARED BY THE PLYMOUTH ENGINEERING DIVISION

500 0 500 1,000

SCALE IN FEET

SEE SHEET 2 OF 2

Filed in the Office of the Town Clerk

Town Clerk

Approved By
Plymouth Board of Selectmen

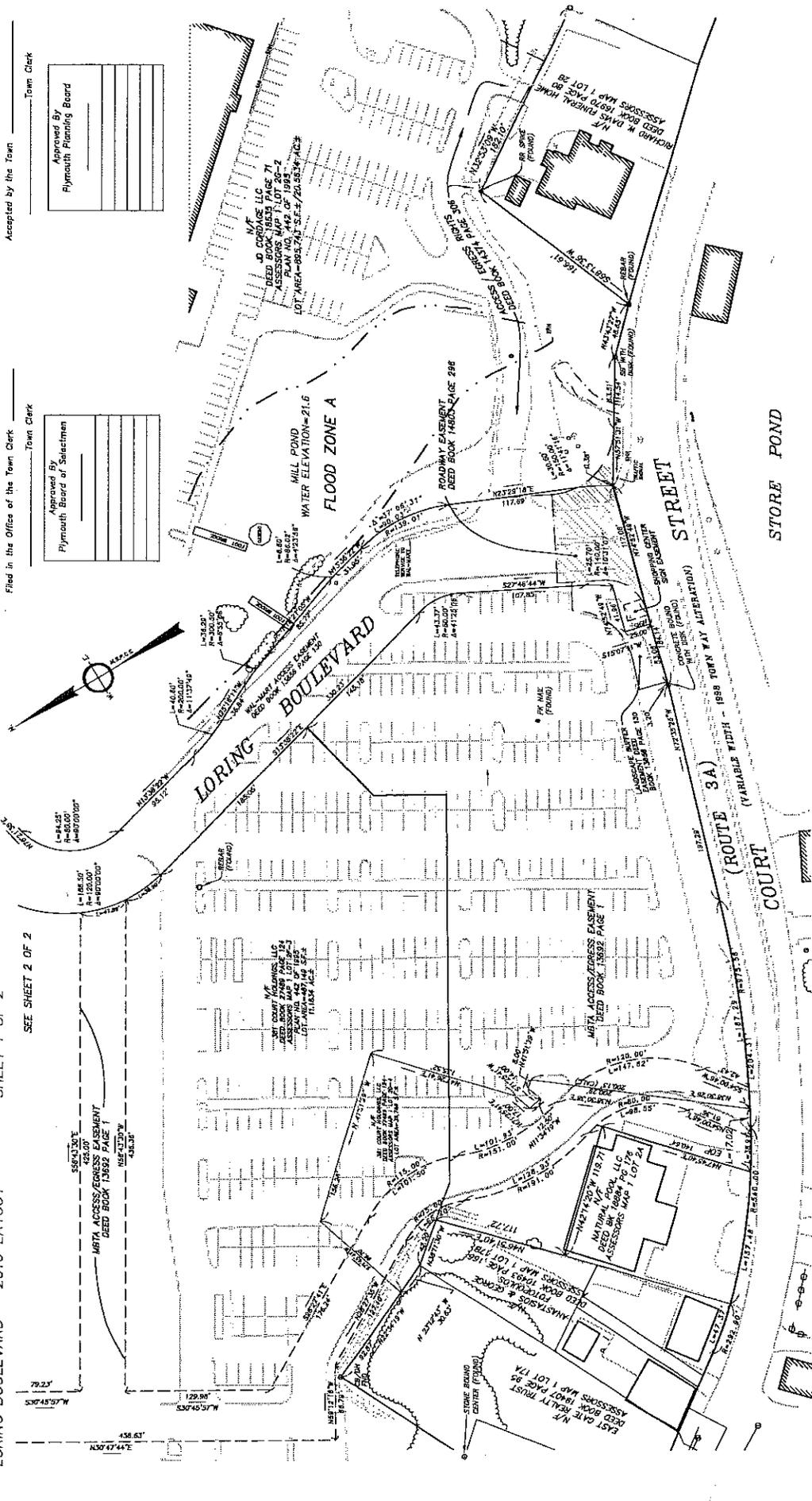
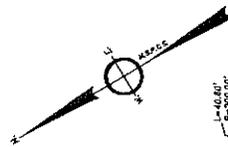
Approved By
Plymouth Planning Board

Accepted by the Town

Town Clerk

Approved By
Plymouth Planning Board

Approved By
Plymouth Board of Selectmen



LAYOUT OF
LORING BOULEVARD
PLYMOUTH, MASSACHUSETTS

Scale: 40 feet to an inch
AUGUST 31, 2016
REGISTERED PROFESSIONAL LAND SURVEYOR
Russell A. Pihl

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED
IN CONFORMANCE WITH THE RULES AND
REGULATIONS OF THE BOARD OF REGISTRY OF
THE COMMONWEALTH OF MASSACHUSETTS.

DATE _____
PROFESSIONAL LAND SURVEYOR

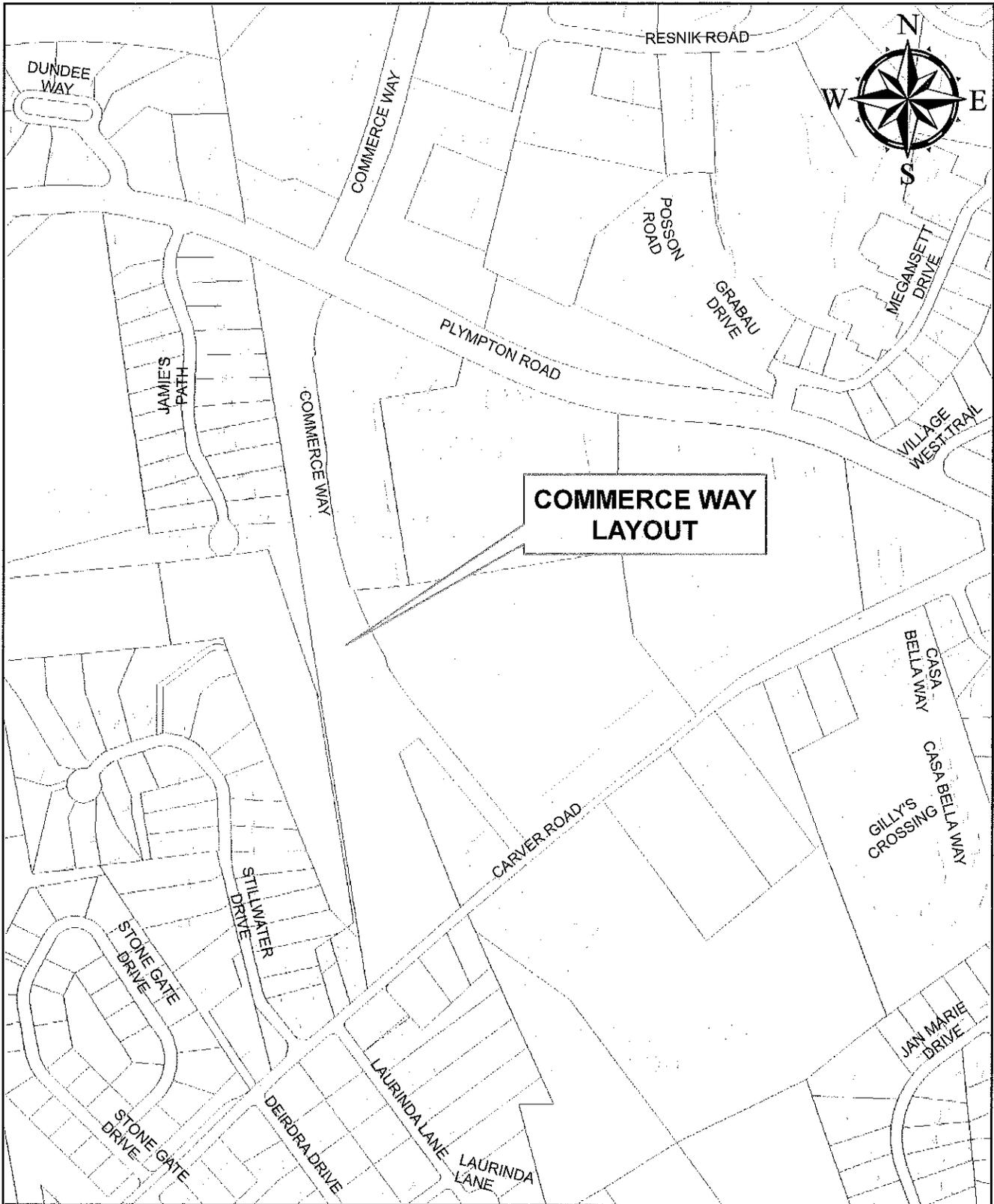


FOR USE BY REGISTRY OF DEEDS ONLY

2016 FALL TOWN MEETING LOCUS MAP

ARTICLE 22,24:
DPW ENGINEERING - COMMERCE WAY LAYOUT

PLAT 105



PREPARED BY THE PLYMOUTH ENGINEERING DIVISION

500 0 500 1,000

SCALE IN FEET

NOTES

1. THE TOWN ENGINEER HAS REVIEWED THE PLANS AND SPECIFICATIONS AND HAS FOUND THEM TO BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE PLANNING BOARD ACTS AND REGULATIONS.
2. THE TOWN ENGINEER HAS REVIEWED THE PLANS AND SPECIFICATIONS AND HAS FOUND THEM TO BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE PLANNING BOARD ACTS AND REGULATIONS.
3. THE TOWN ENGINEER HAS REVIEWED THE PLANS AND SPECIFICATIONS AND HAS FOUND THEM TO BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE PLANNING BOARD ACTS AND REGULATIONS.
4. THE TOWN ENGINEER HAS REVIEWED THE PLANS AND SPECIFICATIONS AND HAS FOUND THEM TO BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE PLANNING BOARD ACTS AND REGULATIONS.

PLAN DESCRIPTION

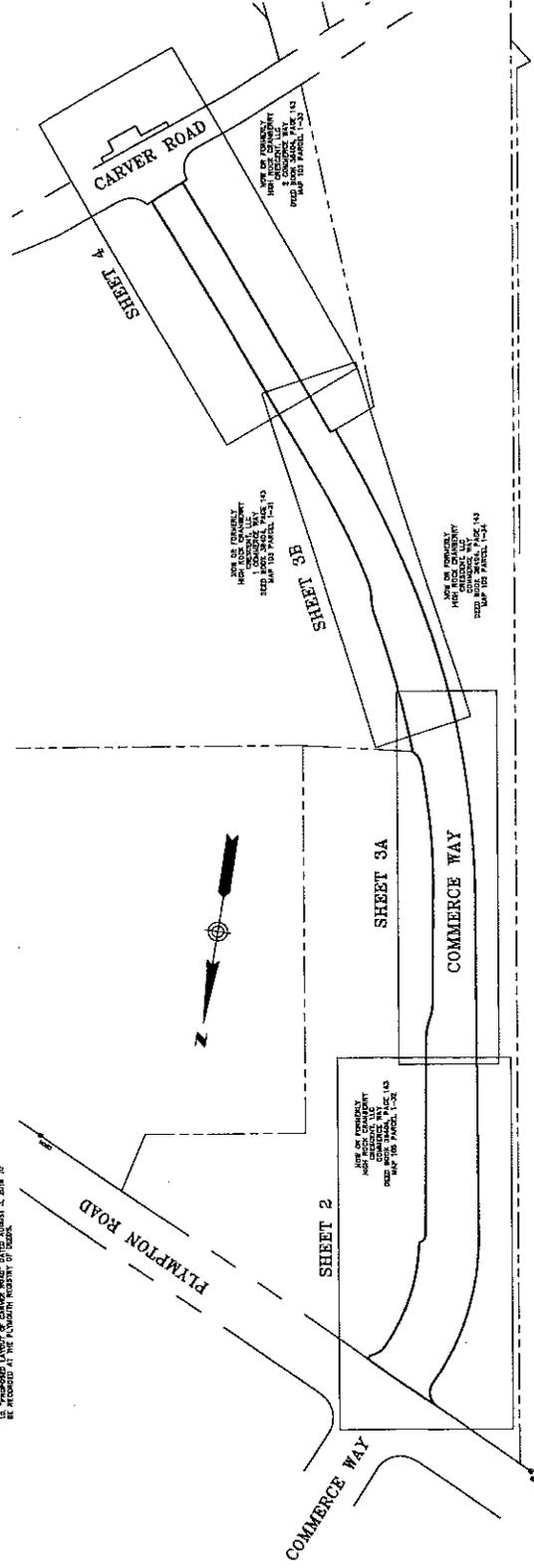
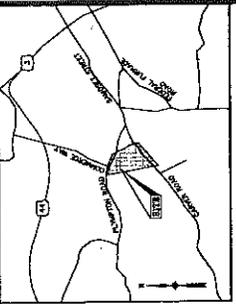
THIS PLAN SHOWS THE PROPOSED LAYOUT OF COMMERCE WAY, A NEW ROAD TO BE CONSTRUCTED IN THE TOWN OF PLYMOUTH, MASSACHUSETTS. THE PLAN SHOWS THE PROPOSED LAYOUT OF COMMERCE WAY, A NEW ROAD TO BE CONSTRUCTED IN THE TOWN OF PLYMOUTH, MASSACHUSETTS. THE PLAN SHOWS THE PROPOSED LAYOUT OF COMMERCE WAY, A NEW ROAD TO BE CONSTRUCTED IN THE TOWN OF PLYMOUTH, MASSACHUSETTS.

Filed in the office of the Town Clerk _____ Town Clerk

Accepted by the Town _____ Town Clerk

Approved by
Plymouth Board of Selectmen:

Approved by
Plymouth Planning Board:



INDEX SHEET - SCALE: 100 FEET TO AN INCH

PROPOSED LAYOUT OF
COMMERCE WAY
PLYMOUTH, MASSACHUSETTS

Prepared for: The Town of Plymouth
Scale: 20 feet to an inch
September 1, 2016
PLYMOUTH DEPT. OF PUBLIC WORKS ENGINEERING DIVISION

WSP
Transmission & Infrastructure
100 Bolles Plaza, Needham Heights, MA 02459-1000
Tel: 781.451.7000

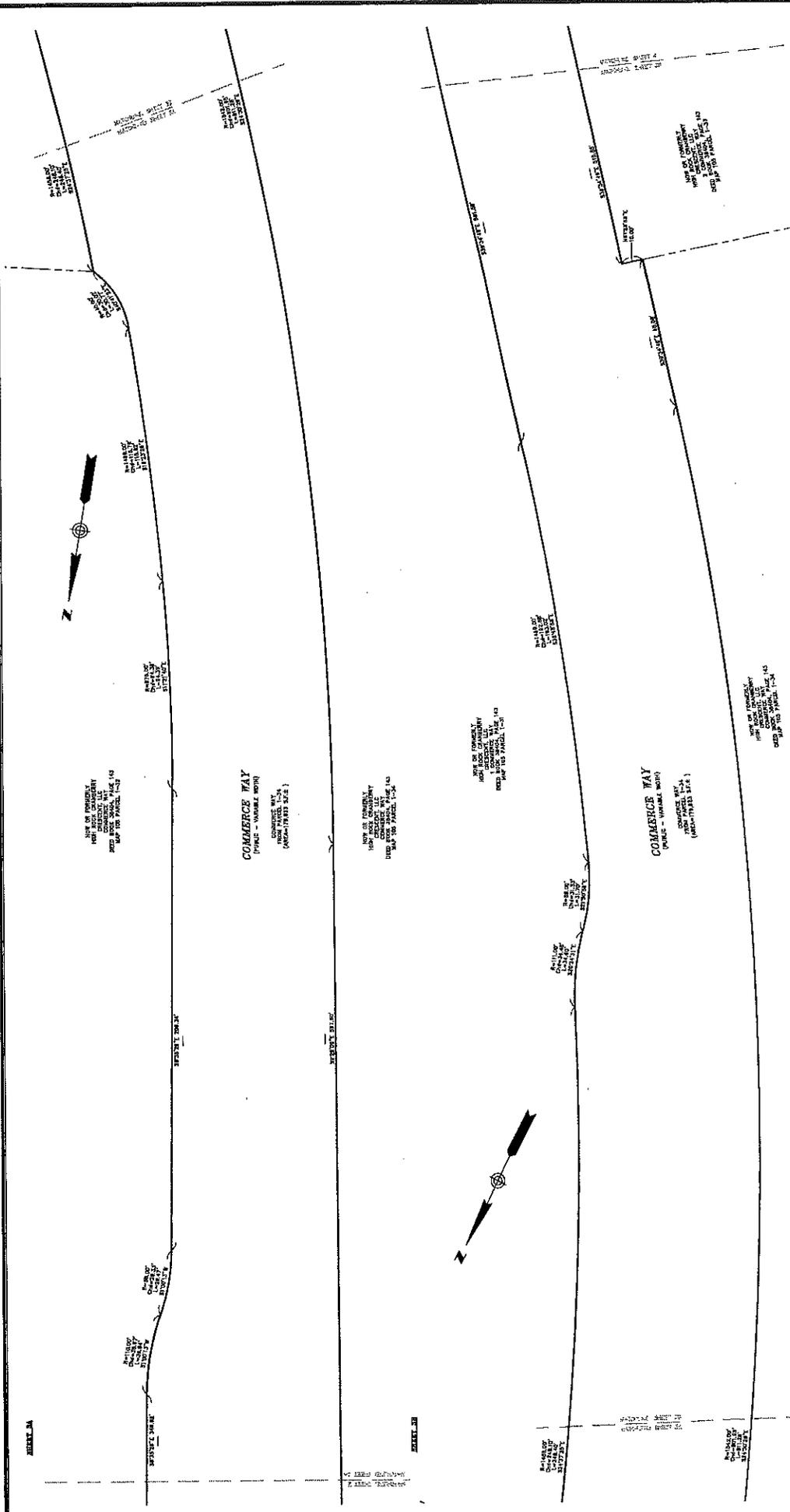
PREPARED BY:



1200380-2.049

FOR REGISTRY USE ONLY

DATE: SEPTEMBER 1, 2016



FOR REGISTRY USE ONLY



WSP
Transportation & Infrastructure
1000 Salinas Field Road • Bellingham, WA 98225 • (360) 778-8200
www.wspinc.com

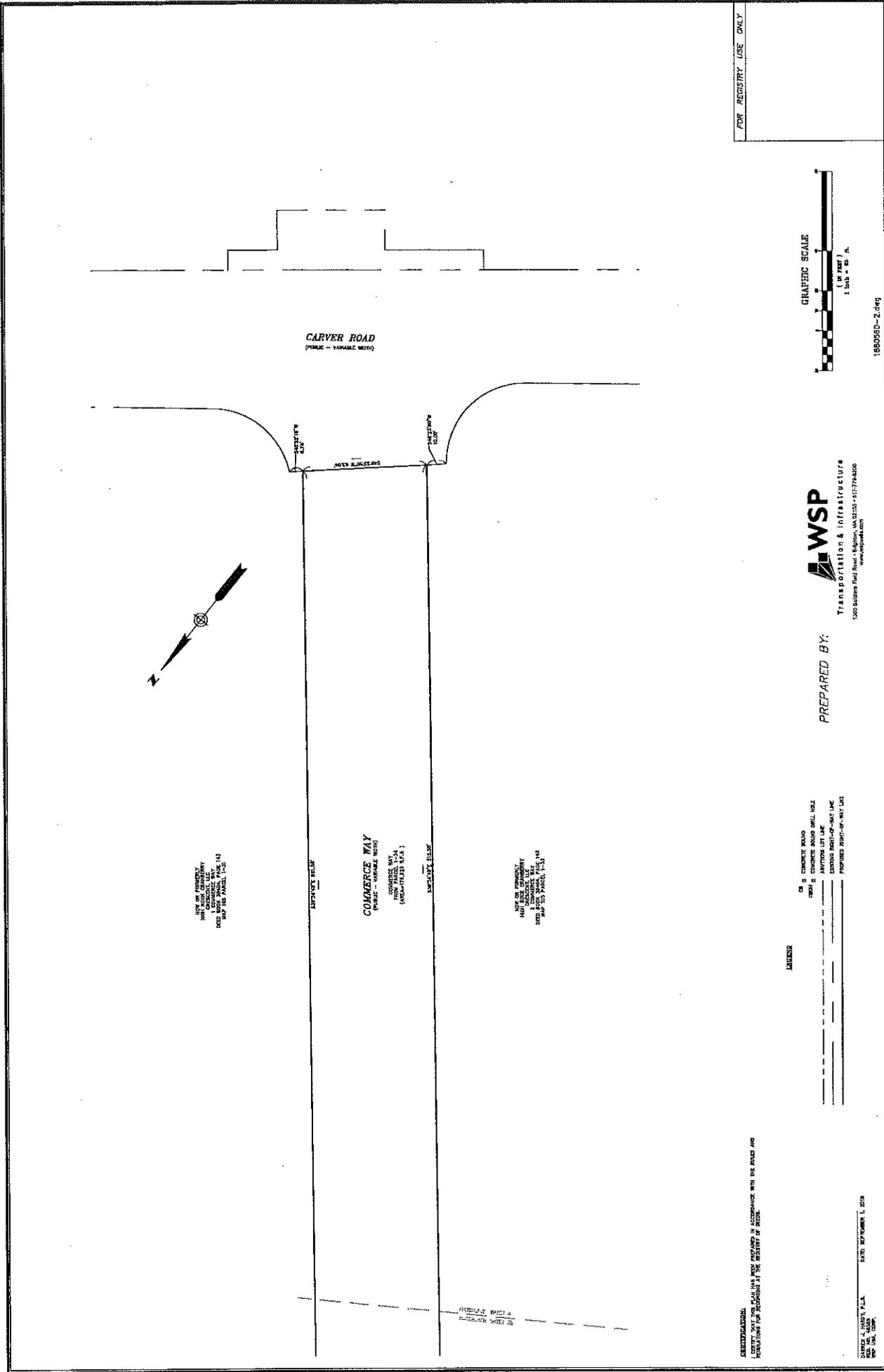
PREPARED BY:

(S) = CONCRETE ROAD
 (D) = CONCRETE ROAD ON ROLL
 (A) = ASPHALT LOT LANE
 (M) = ASPHALT MORTAR-ON-GRAY LANE
 (P) = PAVED MORTAR-ON-GRAY LANE

CERTIFICATION:
 I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE RULES AND
 REGULATIONS FOR FLOWING AT THE OFFICE OF THE REGISTER OF DEEDS.

DATE: SEPTEMBER 1, 2016
 DRAWN BY: [Name]
 CHECKED BY: [Name]

180056D-2.dwg



FOR REGISTRY USE ONLY



WSP
Transportation & Infrastructure
1000 Salsbery Field Road, Richmond, VA 23153 • 817-779-8100
www.wspinc.com

PREPARED BY:

- LEADERS**
- CONCRETE PAVEMENT
 - ASPHALT PAVEMENT
 - ASPHALT LOT LANE
 - ASPHALT DRIVE-UP-WAY LANE
 - PROPOSED DRIVE-UP-WAY LANE

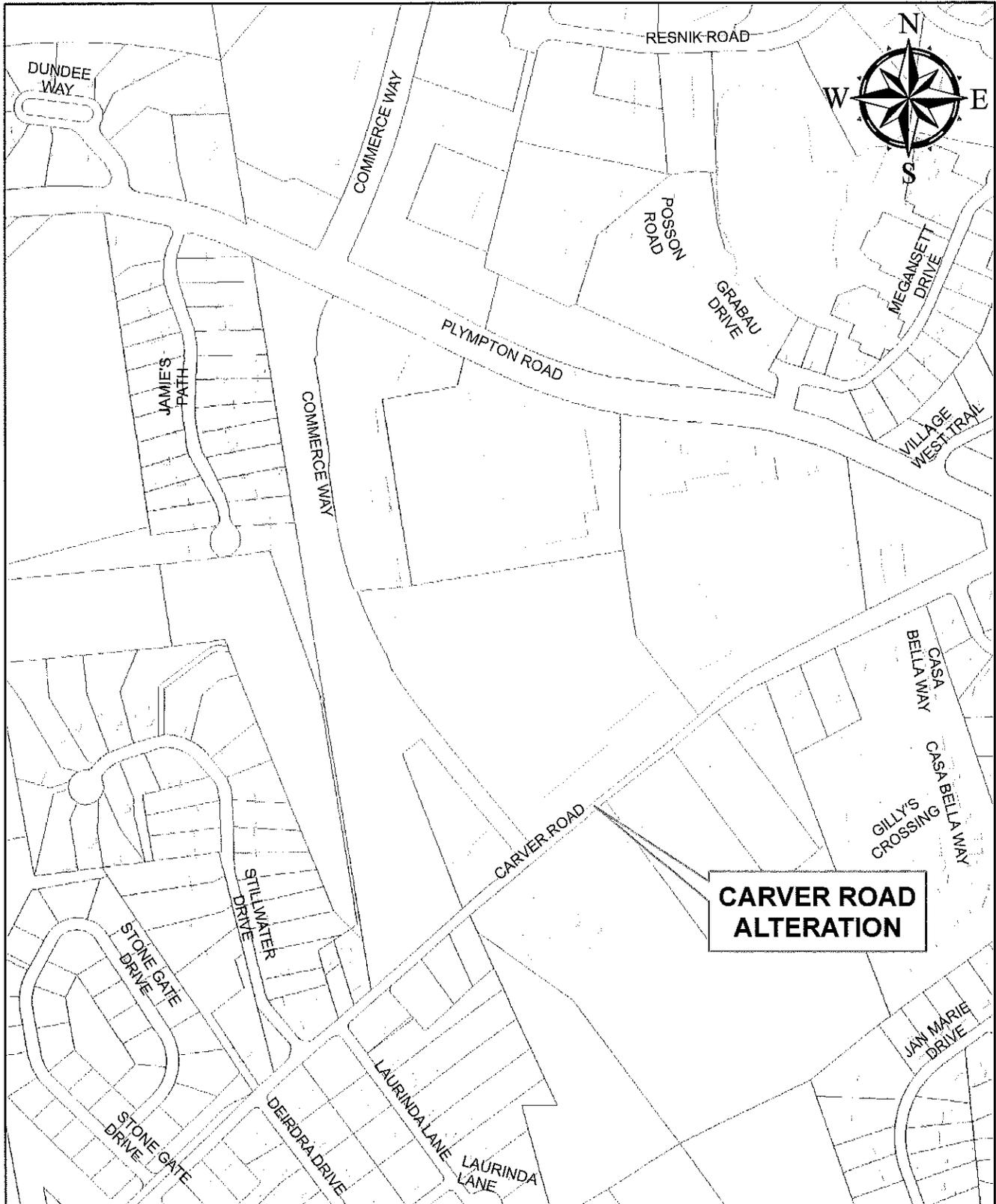
GENERAL NOTES:
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, 2013 EDITION, AS AMENDED.

DATE: 10/15/16
DRAWN BY: J.A.
CHECKED BY: J.A.
APP. BY: J.A.

2016 FALL TOWN MEETING LOCUS MAP

ARTICLE 22.24:
DPW ENGINEERING - CARVER ROAD ALTERATION

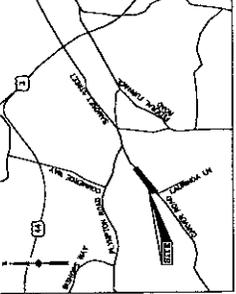
PLAT 105



PREPARED BY THE PLYMOUTH ENGINEERING DIVISION

500 0 500 1,000

SCALE IN FEET



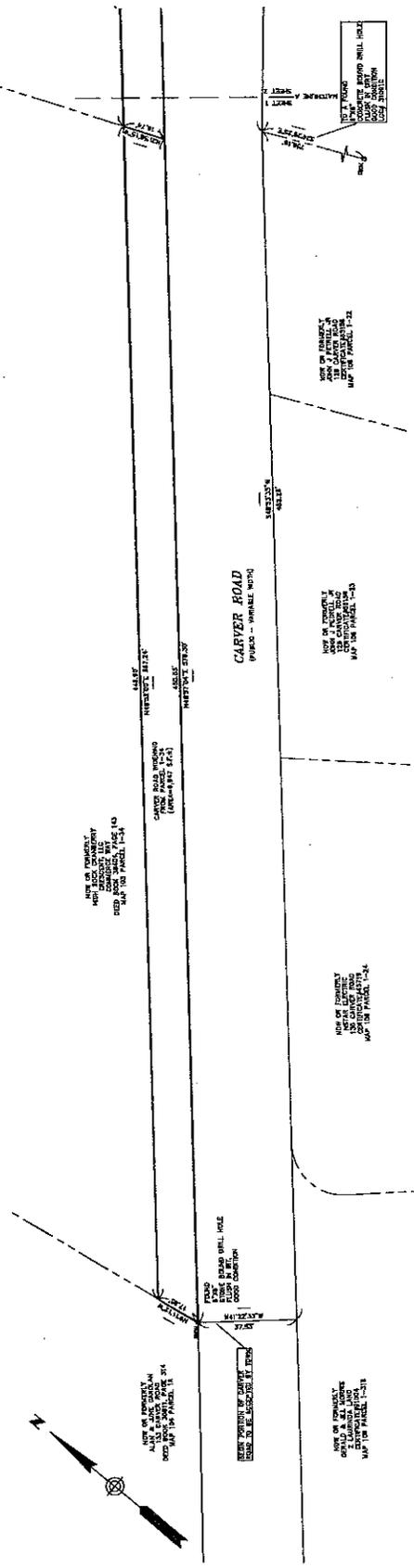
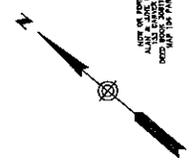
- PLAN REFERENCES**
1. PLAN OF LAND PREPARED FOR THE TOWN OF PLYMOUTH, MASSACHUSETTS, BY THE TOWN ENGINEER, PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 2. PLAN OF LAND PREPARED FOR THE TOWN OF PLYMOUTH, MASSACHUSETTS, BY THE TOWN ENGINEER, PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 3. APPROVED BY THE TOWN ENGINEER AND TOWN CLERK OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 4. APPROVED BY THE TOWN ENGINEER AND TOWN CLERK OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 5. APPROVED BY THE TOWN ENGINEER AND TOWN CLERK OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 6. APPROVED BY THE TOWN ENGINEER AND TOWN CLERK OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 7. PLAN OF THE TOWN OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 8. APPROVED BY THE TOWN ENGINEER AND TOWN CLERK OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 9. APPROVED BY THE TOWN ENGINEER AND TOWN CLERK OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.
 10. APPROVED BY THE TOWN ENGINEER AND TOWN CLERK OF PLYMOUTH, MASSACHUSETTS, DATED JANUARY 20, 2010.

Filed in the office of the Town Clerk _____ Town Clerk

Accepted by the Town _____ Town Clerk

Approved by
Plymouth Planning Board:

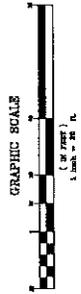
Approved by
Plymouth Board of Selectmen:



PREPARED BY:

PROPOSED LAYOUT OF
CARVER ROAD
PLYMOUTH, MASSACHUSETTS

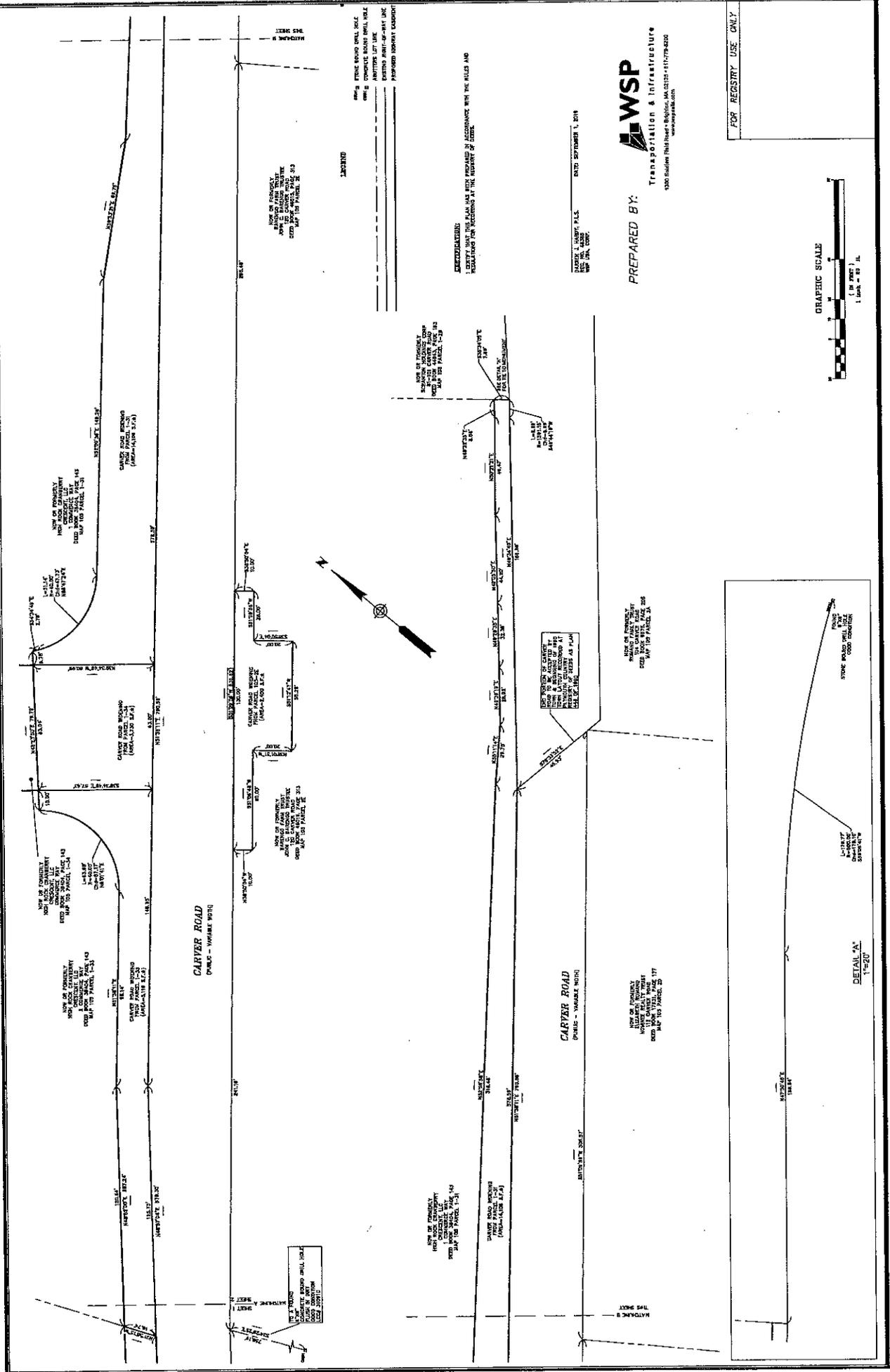
Prepared for: The Town of Plymouth
Scale: 20 feet to an inch
September 1, 2016
ENGINEERING DIVISION



FOR REGISTRY USE ONLY

REGISTERED: _____ DATE: SEPTEMBER 1, 2016

DESIGNED BY: _____ DATE: SEPTEMBER 1, 2016



NOTE: STAKE MARKING SHALL BE COMPLETED PRIOR TO CONSTRUCTION. ANY CHANGES TO THIS PLAN SHALL BE APPROVED BY THE ENGINEER.

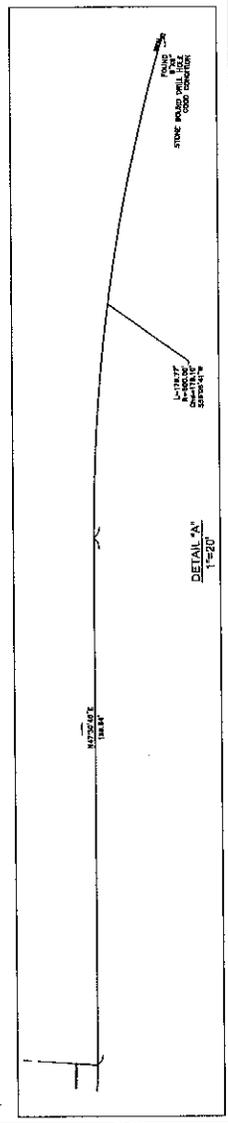
DATE: SEPTEMBER 1, 2016
 DRAWN BY: [Name]
 CHECKED BY: [Name]



PREPARED BY: [Name]



FOR REGISTRY USE ONLY



NOTE: STAKE MARKING SHALL BE COMPLETED PRIOR TO CONSTRUCTION. ANY CHANGES TO THIS PLAN SHALL BE APPROVED BY THE ENGINEER.

DATE: SEPTEMBER 1, 2016
 DRAWN BY: [Name]
 CHECKED BY: [Name]



PREPARED BY: [Name]

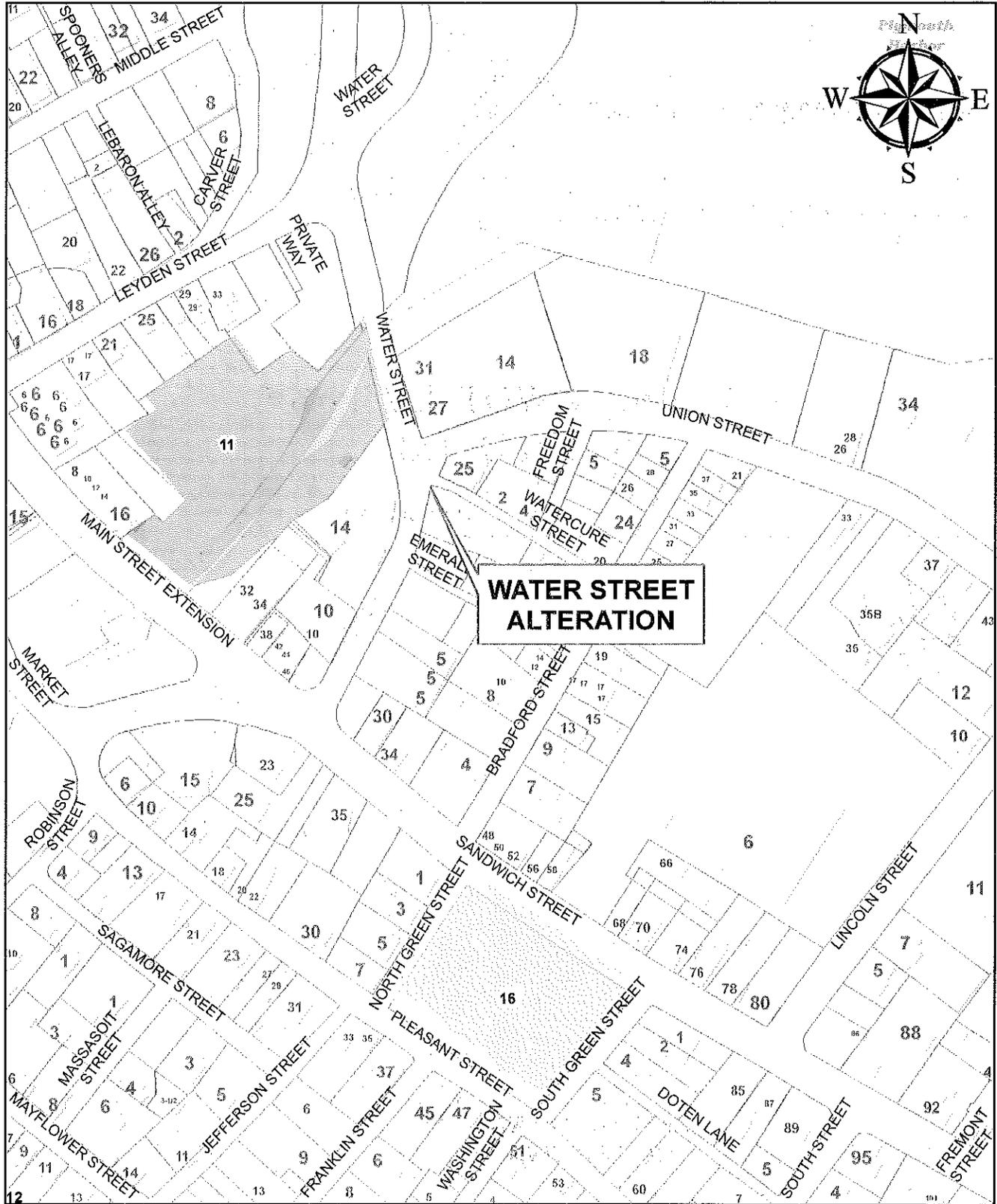


FOR REGISTRY USE ONLY

2016 FALL TOWN MEETING LOCUS MAP

ARTICLE 22:
DPW ENGINEERING - WATER STREET ALTERATION

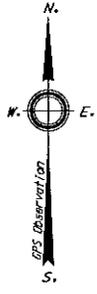
PLAT 20



PREPARED BY THE PLYMOUTH ENGINEERING DIVISION

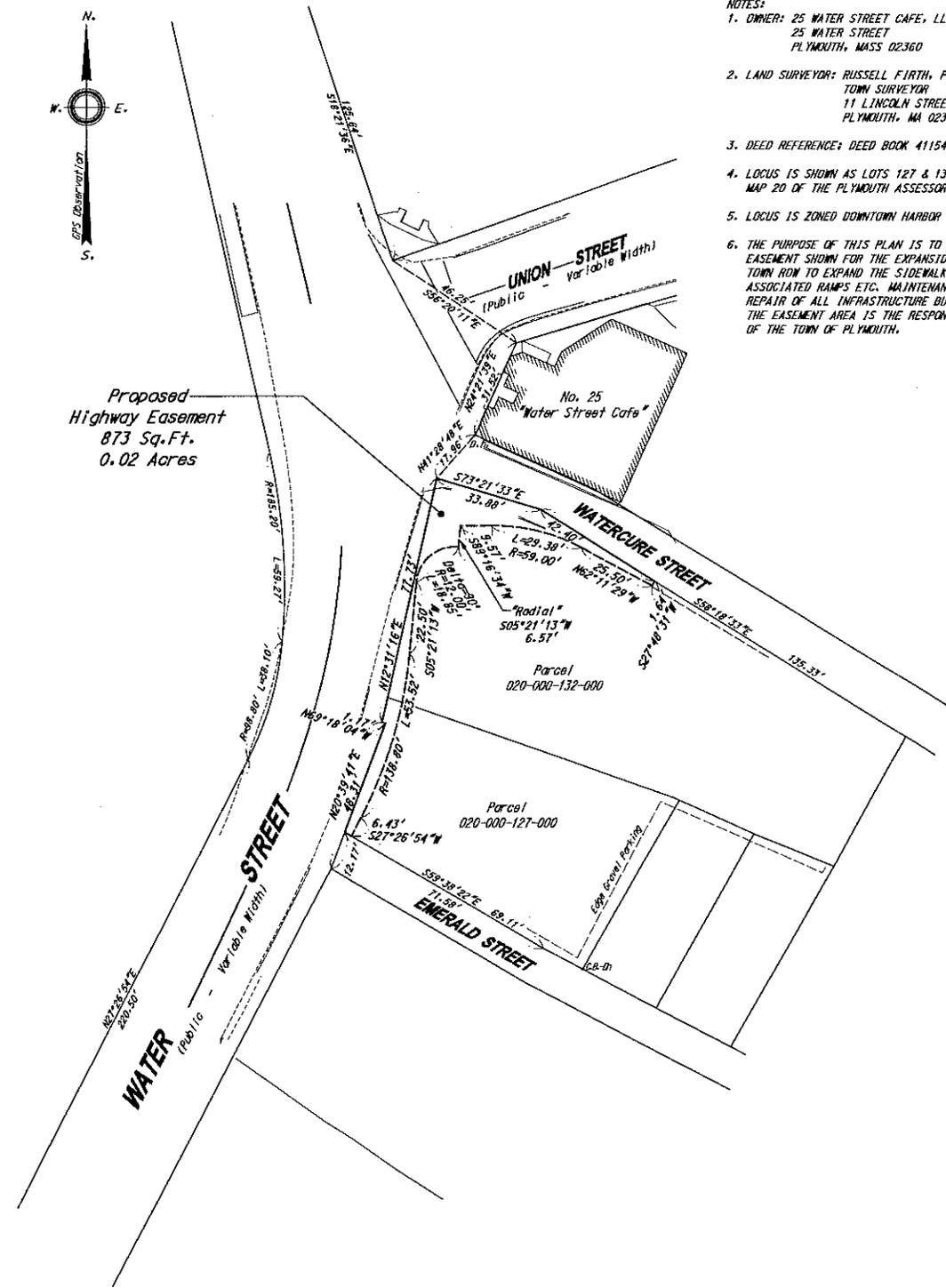
200 0 200 400

SCALE IN FEET



- NOTES:
1. OWNER: 25 WATER STREET CAFE, LLC
25 WATER STREET
PLYMOUTH, MASS 02360
 2. LAND SURVEYOR: RUSSELL FIRTH, P.L.S.
TOWN SURVEYOR
11 LINCOLN STREET
PLYMOUTH, MA 02360
 3. DEED REFERENCE: DEED BOOK 41154 PAGE 170.
 4. LOCUS IS SHOWN AS LOTS 127 & 132 ON
MAP 20 OF THE PLYMOUTH ASSESSOR'S MAPS.
 5. LOCUS IS ZONED DOWNTOWN HARBOR "DH".
 6. THE PURPOSE OF THIS PLAN IS TO CREATE THE
EASEMENT SHOWN FOR THE EXPANSION OF THE
TOWN ROW TO EXPAND THE SIDEWALK AND
ASSOCIATED RAMP ETC. MAINTENANCE AND
REPAIR OF ALL INFRASTRUCTURE BUILT WITHIN
THE EASEMENT AREA IS THE RESPONSIBILITY
OF THE TOWN OF PLYMOUTH.

Proposed
Highway Easement
873 Sq.Ft.
0.02 Acres



I hereby certify that the property lines shown on this plan are the lines dividing existing ownership, 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 division of existing ownership or for new ways are shown.

I also certify that this plan has been prepared in conformity with the rules and regulations of the Registry of Deeds of the Commonwealth of Massachusetts.

**PROPOSED
HIGHWAY EASEMENT
THROUGH LAND OF
25 WATER STREET CAFE, LLC
PLYMOUTH, MASSACHUSETTS**

Prepared for: The Town of Plymouth

Scale: 20 feet to an inch August 10, 2016
PLYMOUTH DEPT. OF PUBLIC WORKS - ENGINEERING DIVISION
Russell A. Firth, P.L.S. Town Surveyor



Graphic Scale
FOR REGISTRY USE ONLY

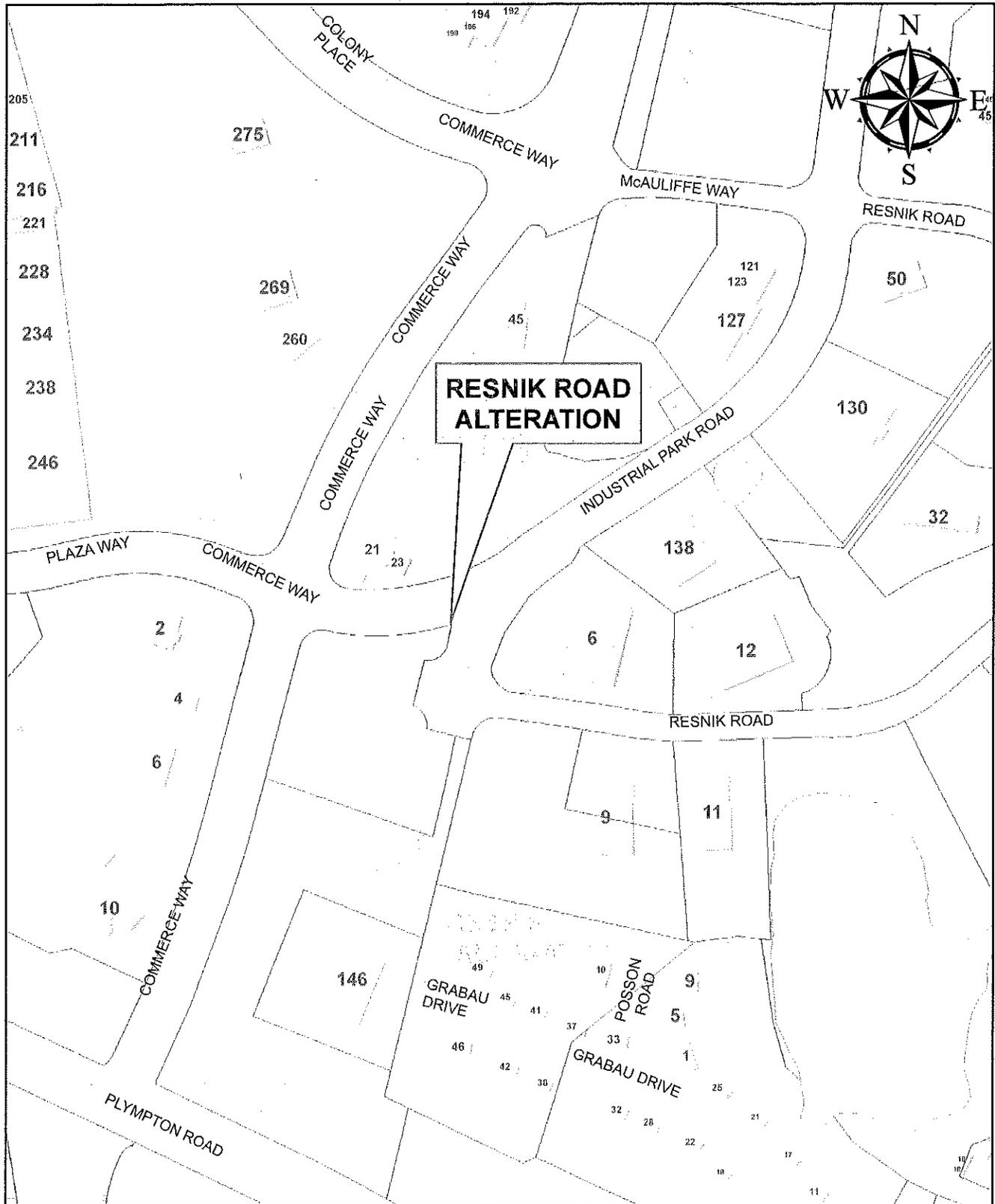
**INFORMATIONAL
PRINT**

Date Professional Land Surveyor

2016 FALL TOWN MEETING LOCUS MAP

ARTICLE 22:
DPW ENGINEERING - RESNIK ROAD ALTERATION

PLAT 103



PREPARED BY THE PLYMOUTH ENGINEERING DIVISION

300 0 300 600

SCALE IN FEET

FALL ANNUAL TOWN MEETING WARRANT
October 15, 2016

ARTICLE 25 :

To see if the Town will vote to authorize the Board of Selectmen to acquire, by gift, purchase, or eminent domain, and upon such terms and conditions as it deems appropriate, such temporary and permanent easements for highway and utility purposes in lands along Taylor Avenue as are necessary to carry out the proposed reconstruction/improvement of Taylor Avenue in accordance with the Easement Plan prepared for such project, which plan has been placed on file with the Town Clerk, and further to raise and appropriate, transfer, or borrow a sum of money as may be required for the acquisition of the aforesaid interests in land, or take any other action relative thereto.

BOARD OF SELECTMEN



TOWN OF PLYMOUTH

Department of Public Works
11 Lincoln Street
Plymouth, Massachusetts 02360

TO: ADVISORY AND FINANCE COMMITTEE

FROM: SID KASHI, P. E. *(Signature)*
TOWN ENGINEER

Through: JONATHAN BEDER, DIRECTOR OF PUBLIC WORKS

CC: MELISSA ARRIGHI, TOWN MANAGER

DATE: SEPTEMBER 7, 2016

**Subject: 2016 FALL ANNUAL TOWN MEETING – ARTICLE EXPLANATION
ARTICLE 25 – TAYLOR AVENUE EMINENT DOMAIN TAKING**

The proposed Taylor Avenue Project consists of a bridge replacement and significant roadway and pedestrian improvements along Taylor Avenue. Please see the enclosed excerpts from Project's Public Hearing for more details. The Project will be funded and overseen by the Massachusetts Department of Transportation (Mass DOT). The Project is expected to benefit both the owners of land abutting this road and the general public by making travel on the roadway safer and easier. The Town is now in the process of completing a final design plan for the Project and every effort is being made to complete the design so that this project can be funded and advertised by Mass DOT in the late spring of 2017, subject to availability of the funds and the acquisition of the requisite interests in land.

Before the Project can begin, the Town must obtain certain property rights (known as temporary and/or permanent easements) in properties abutting the roadways. The temporary and/or permanent easements will allow the contractor to perform the work associated with the roadway improvements occurring outside of the existing Town Right-of-Way, and allow the Town to use and maintain the improvements once the project is completed. Upon completion the Town intends to alter the Right-of-Way to include the new improvements consistent with the permanent easements it acquires.

The Town expects to ask the affected property owners to donate the required easements, and will be contacting each affected owner individually to discuss these acquisitions. Once discussions with the individual owners have concluded, the Town expects to use the eminent domain procedure to formally acquire the necessary interests in land.

The Eminent Domain taking procedure is regulated by the Town of Plymouth "By-Laws" Article 11, and the Massachusetts General Laws (MGL) Chapter 79. This involves holding a Public Hearing (see attached Public Hearing Notice), hiring an appraiser, completing an Appraisal Report, filing an Order of Taking at the Registry of Deeds and / or making Damage Awards to the affected parties. In anticipation of damage awards for easements being required, the Eminent Domain Hearing was held on Wednesday, June 15, 2016 at 6:00 P.M. This Eminent Domain action will be funded through the State Aid/Chapter 90 and / or Town (Capital Project) appropriation. This Article has been placed in the 2016 ATM Warrant that asks Town Meeting to authorize the Board of Selectmen to carry out these tasks.

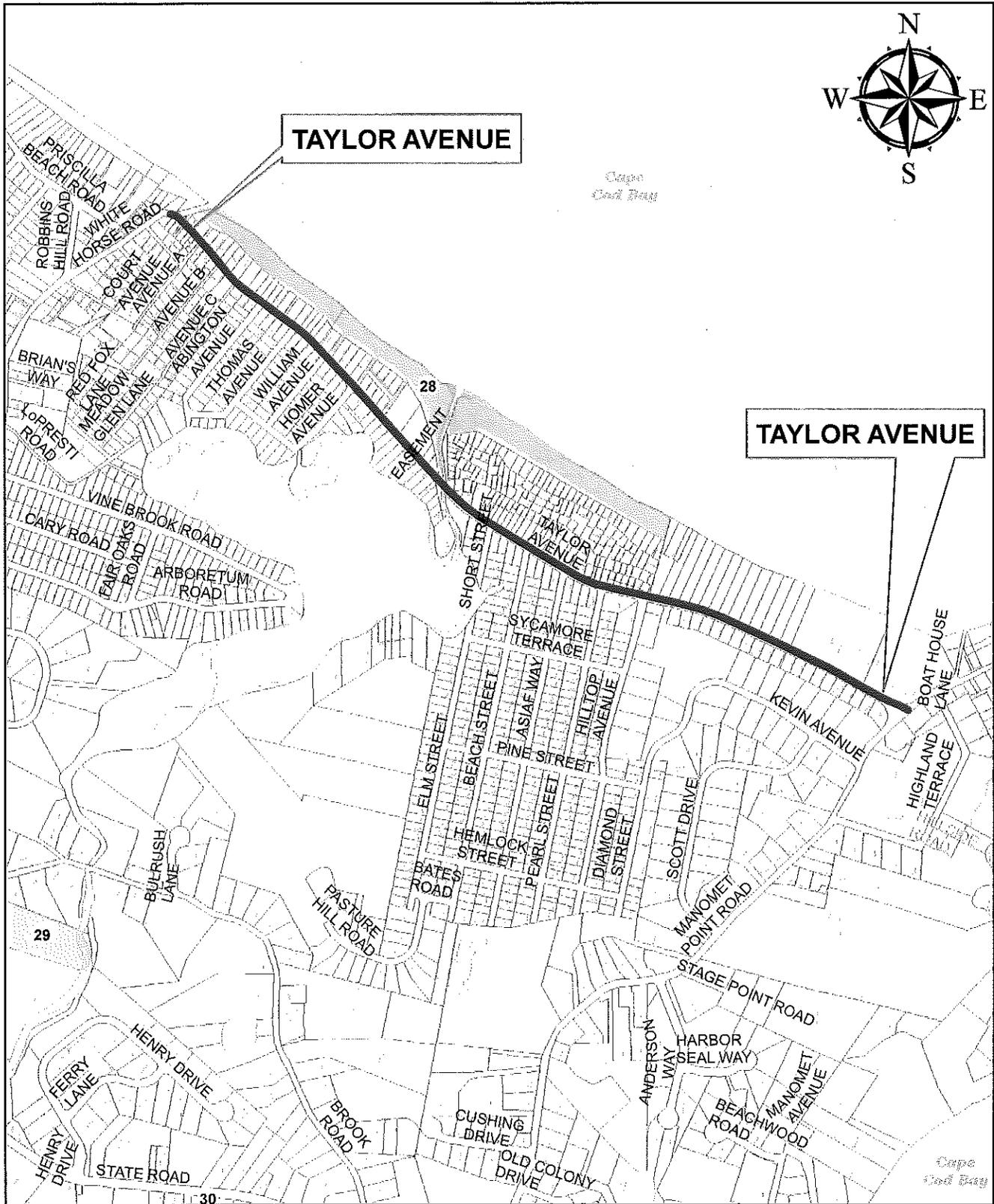
The DPW-Engineering Division recommends that the Advisory and Finance Committee vote to approve and support Article 25 as presented. Representatives of the Engineering Division will be available on September 14, 2016 to present the supporting documents and answer any questions that you may have.

Encl.: Locus Map
Public Hearing Notice
Easement Plan

2016 FALL TOWN MEETING LOCUS MAP

ARTICLE 25:
DPW ENGINEERING - TAYLOR AVENUE

PLAT 45,45A,45B,46



PREPARED BY THE PLYMOUTH ENGINEERING DIVISION

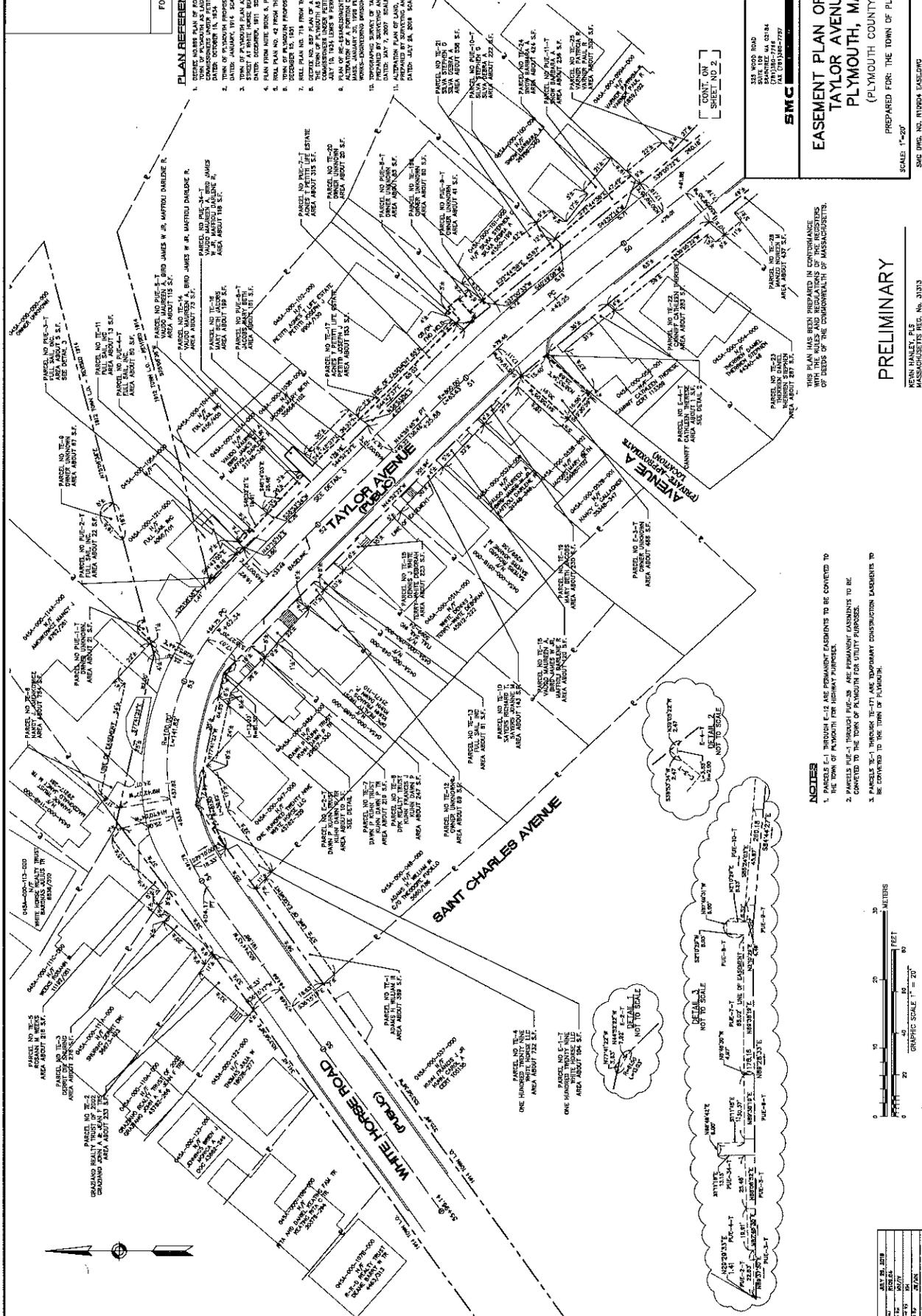
800 0 800 1,600

SCALE IN FEET

FOR REGENCY USE ONLY

PLAN REFERENCES

1. DECREE GRANTING PLAN OF ROADS AT WHITE HORSE BEACH IN THE TOWN OF PLYMOUTH AS Laid OUT BY THE COUNTY ENGINEER, DATED OCTOBER 18, 1834.
2. TOWN OF PLYMOUTH PROPOSED EXTENSION OF TAYLOR AVENUE, DATED OCTOBER 18, 1834.
3. TOWN OF PLYMOUTH PLAN AND PROFILE OF PROPOSED NEW STREET AT WHITE HORSE BEACH, DATED JULY 7, 1881.
4. PLAN FROM THE RECORDS & PAPERS OF SAID TOWN, DATED JULY 7, 1881.
5. TOWN OF PLYMOUTH PROPOSED LAYOUT OF ARBUSTON AVENUE, DATED JULY 7, 1881.
6. DEEDS NO. 287 PLAN OF A PART OF MANHATTAN POOL ROAD IN THE TOWN OF PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
7. DEEDS NO. 287 PLAN OF A PART OF MANHATTAN POOL ROAD IN THE TOWN OF PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
8. ACTING COMMISSIONER OF HIGHWAYS AND BRIDGE DEPARTMENT, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
9. TOWN OF PLYMOUTH PLAN OF TAYLOR AVENUE, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
10. TOWN OF PLYMOUTH PLAN OF TAYLOR AVENUE, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
11. ALTERNATE PLAN OF SAID TAYLOR AVENUE, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
12. TOWN OF PLYMOUTH PLAN OF TAYLOR AVENUE, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
13. TOWN OF PLYMOUTH PLAN OF TAYLOR AVENUE, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
14. TOWN OF PLYMOUTH PLAN OF TAYLOR AVENUE, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.
15. TOWN OF PLYMOUTH PLAN OF TAYLOR AVENUE, PLYMOUTH, MASSACHUSETTS, DATED JULY 19, 1881.



SMC

328 WOOD ROAD
 BRAINTREE MA 02824
 TEL: (781) 878-7797
 FAX: (781) 878-7797

**EASEMENT PLAN OF LAND
 TAYLOR AVENUE
 PLYMOUTH, MA
 (PLYMOUTH COUNTY)**

PREPARED FOR: THE TOWN OF PLYMOUTH
 DATE: JULY 26, 2018
 SCALE: 1"=20'

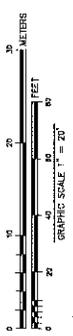
SMC INC. NO. RYDOKA EASTING
 SHEET 1 OF 10

THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERED PROFESSIONAL ENGINEERS OF THE COMMONWEALTH OF MASSACHUSETTS.

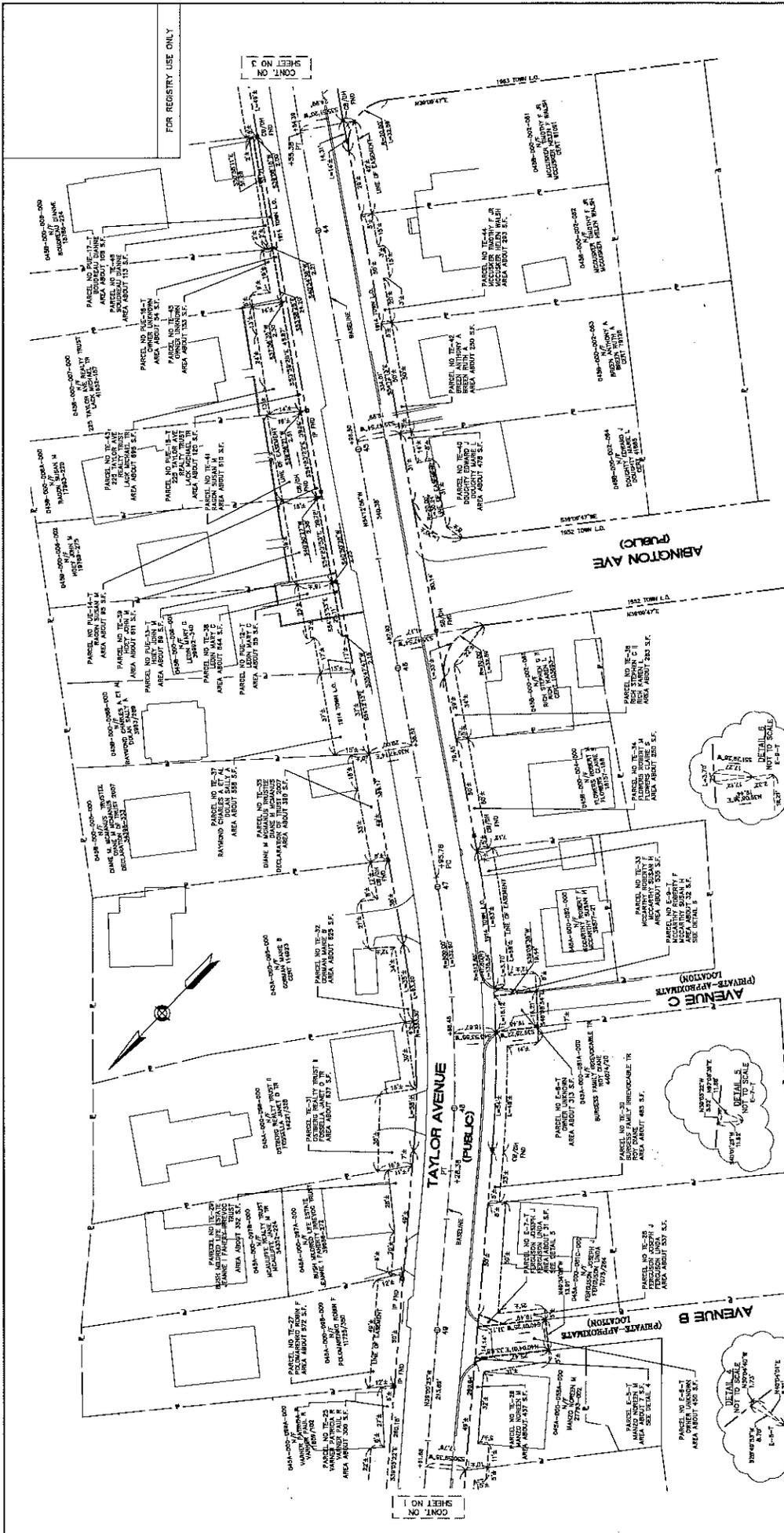
PRELIMINARY

KEVIN HANLEY, P.E.
 MASSACHUSETTS REG. NO. 31013

- NOTES**
1. PARCELS E-1 THROUGH E-12 ARE PERMANENT EASEMENTS TO BE CONVEYED TO THE TOWN OF PLYMOUTH FOR HIGHWAY PURPOSES.
 2. PARCELS FUE-1 THROUGH FUE-20 ARE PERMANENT EASEMENTS TO BE CONVEYED TO THE TOWN OF PLYMOUTH FOR UTILITY PURPOSES.
 3. PARCELS TE-1 THROUGH TE-17 ARE TEMPORARY CONSTRUCTION EASEMENTS TO BE CONVEYED TO THE TOWN OF PLYMOUTH.



DATE	REVISED
JULY 26, 2018	1
DESIGNED BY	SMC
CHECKED BY	SMC
PROJECT NO.	18-000
SCALE	1" = 20'



SMC
 100 W. 1000 ROAD
 SUITE 100
 PLYMOUTH, MA 01914
 TEL: (508) 833-7777
 FAX: (508) 833-7777

**EASEMENT PLAN OF LAND
 TAYLOR AVENUE
 PLYMOUTH, MA
 (PLYMOUTH COUNTY)**

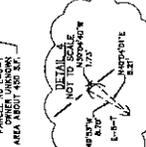
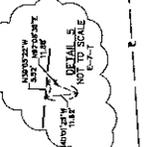
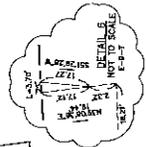
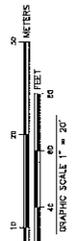
PREPARED FOR: THE TOWN OF PLYMOUTH
 SCALE: 1"=20'
 DATE: JULY 26, 2018

SMC ENG. NO. R100A-EASEJWG
 SHEET 2 OF 10

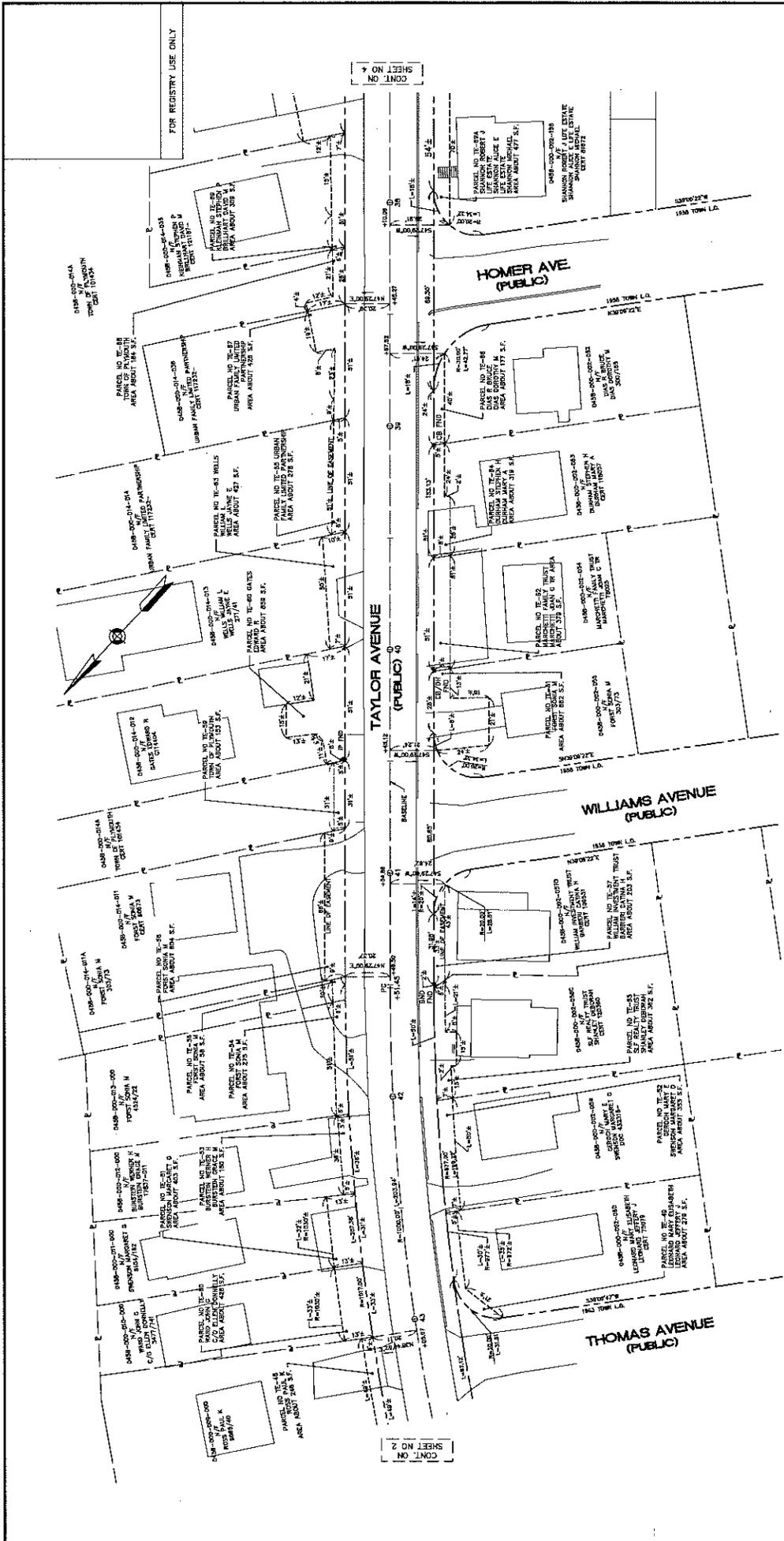
THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERED PROFESSIONAL ENGINEERS OF THE COMMONWEALTH OF MASSACHUSETTS.

PRELIMINARY

KEVIN HANLEY, P.E.
 MASSACHUSETTS REG. NO. 31313



DATE	JULY 26, 2018
PROJECT	TAYLOR AVENUE
CLIENT	TOWN OF PLYMOUTH
DESIGNED BY	SMC
CHECKED BY	SMC
SCALE	1"=20'
SHEET NO.	2 OF 10



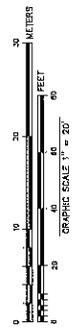
SMC
 251 WYOMING ROAD
 BOSTON, MA 02114
 TEL: (617) 552-7300
 FAX: (617) 552-7307

**EASEMENT PLAN OF LAND
 TAYLOR AVENUE
 PLYMOUTH, MA
 (PLYMOUTH COUNTY)**

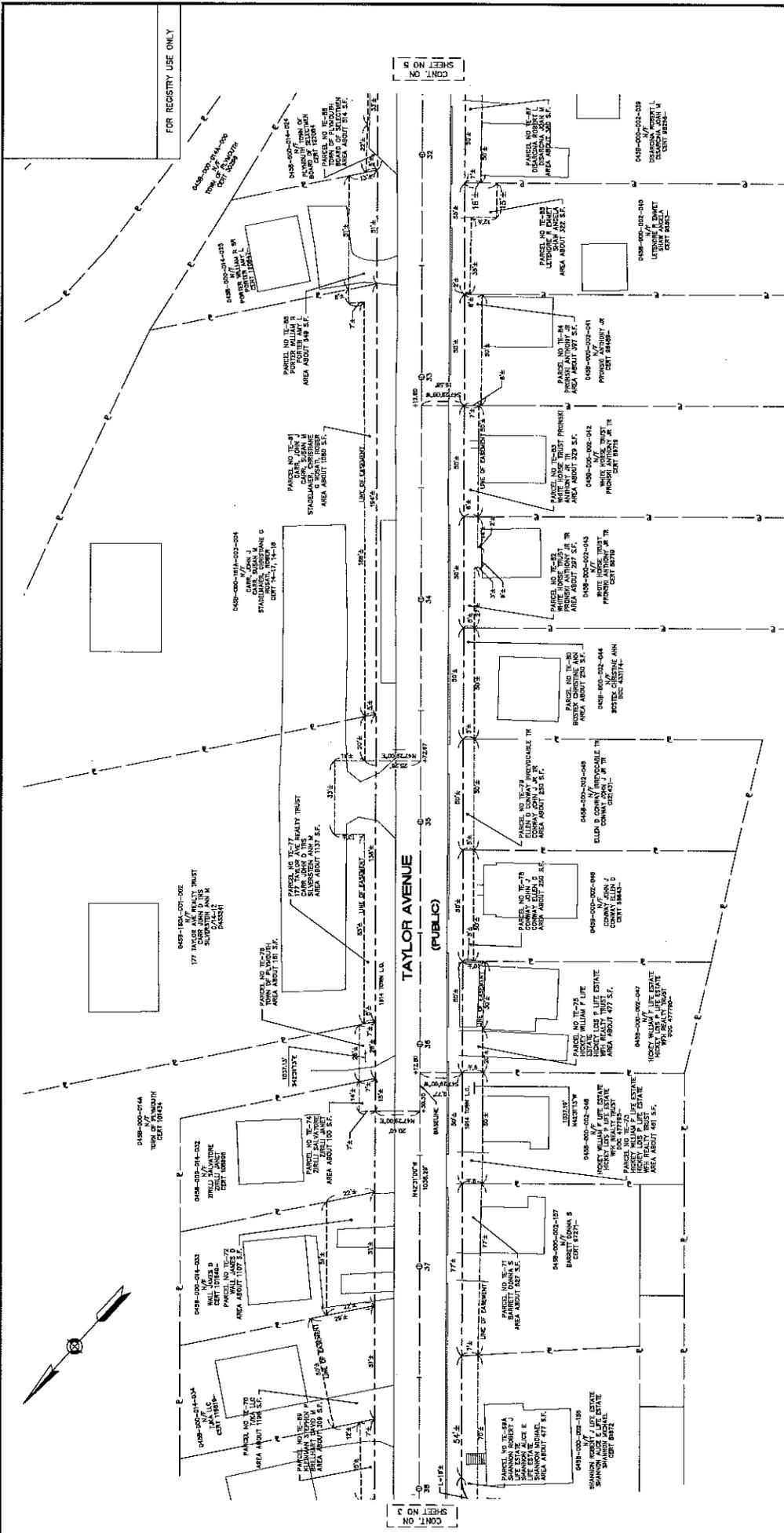
PREPARED FOR: THE TOWN OF PLYMOUTH
 DATE: JULY 08, 2016
 SCALE: 1"=20'
 SMC PROJ. NO. 110094 EASING
 SHEET 3 OF 10

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE
 WITH THE RULES AND REGULATIONS OF THE REGISTRARS
 OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

PRELIMINARY
 KEVIN HANLEY, P.E.
 MASSACHUSETTS REG. NO. 31013



DATE	REV.	BY
	1	KEVIN HANLEY
	2	KEVIN HANLEY
	3	KEVIN HANLEY
	4	KEVIN HANLEY
	5	KEVIN HANLEY
	6	KEVIN HANLEY
	7	KEVIN HANLEY
	8	KEVIN HANLEY
	9	KEVIN HANLEY
	10	KEVIN HANLEY



FOR REGISTRY USE ONLY

201 FORD ROAD
 BRAINTREE, MA 02184
 (781) 848-7297

SMC

**EASEMENT PLAN OF LAND
 TAYLOR AVENUE
 PLYMOUTH, MA
 (PLYMOUTH COUNTY)**

PREPARED FOR: THE TOWN OF PLYMOUTH

SCALE: 1"=20'

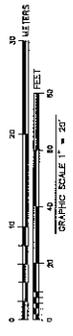
DATE: JULY 26, 2016

SMC Dwg. No. R1000A.EASE.DWG SHEET 4 OF 10

THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTRARS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

PRELIMINARY

KEVIN HANLEY, P.E.
 MASSACHUSETTS REG. NO. 31313



DATE	REV.	BY	DESCRIPTION
07/26/16	1	SMC	ISSUE FOR REGISTRY
07/26/16	2	SMC	REVISED PER TOWN COMMENTS
07/26/16	3	SMC	REVISED PER TOWN COMMENTS
07/26/16	4	SMC	REVISED PER TOWN COMMENTS
07/26/16	5	SMC	REVISED PER TOWN COMMENTS
07/26/16	6	SMC	REVISED PER TOWN COMMENTS
07/26/16	7	SMC	REVISED PER TOWN COMMENTS
07/26/16	8	SMC	REVISED PER TOWN COMMENTS
07/26/16	9	SMC	REVISED PER TOWN COMMENTS
07/26/16	10	SMC	REVISED PER TOWN COMMENTS

CONT. ON 5

CONT. ON 2

FOR REGISTRY USE ONLY

SHEET NO. 4

SMC

125 WALK ROAD
SUITE 100
PLYMOUTH, MA 01954
TEL: (508) 838-7777

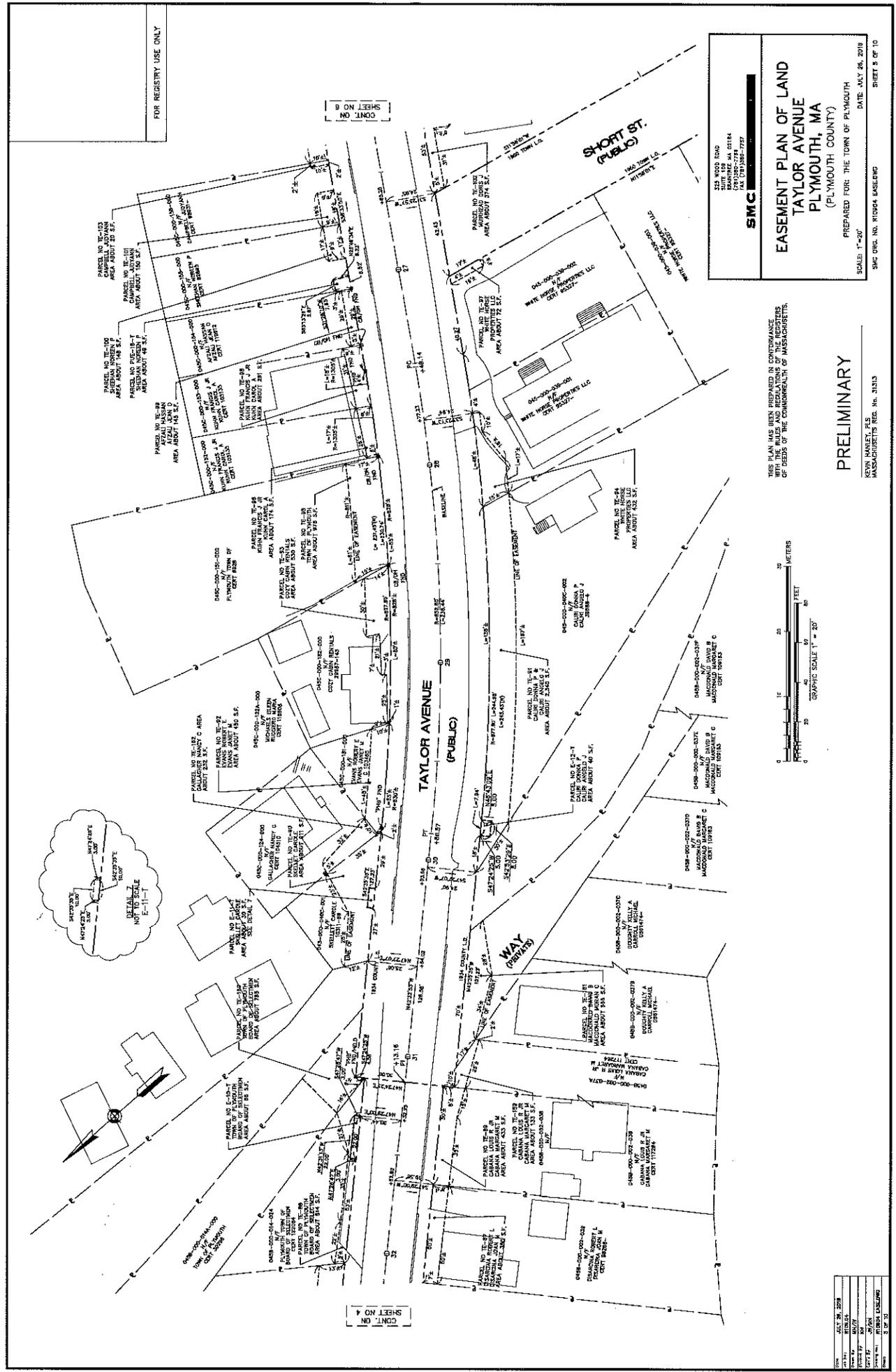
**EASEMENT PLAN OF LAND
TAYLOR AVENUE
PLYMOUTH, MA
(PLYMOUTH COUNTY)**

PREPARED FOR: THE TOWN OF PLYMOUTH
DATE: JULY 26, 2018
SCALE: 1"=20'
SMC Dwg. No. R1004 EASEW02 SHEET 5 OF 10

THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERED OFFICE OF THE COMMONWEALTH OF MASSACHUSETTS.

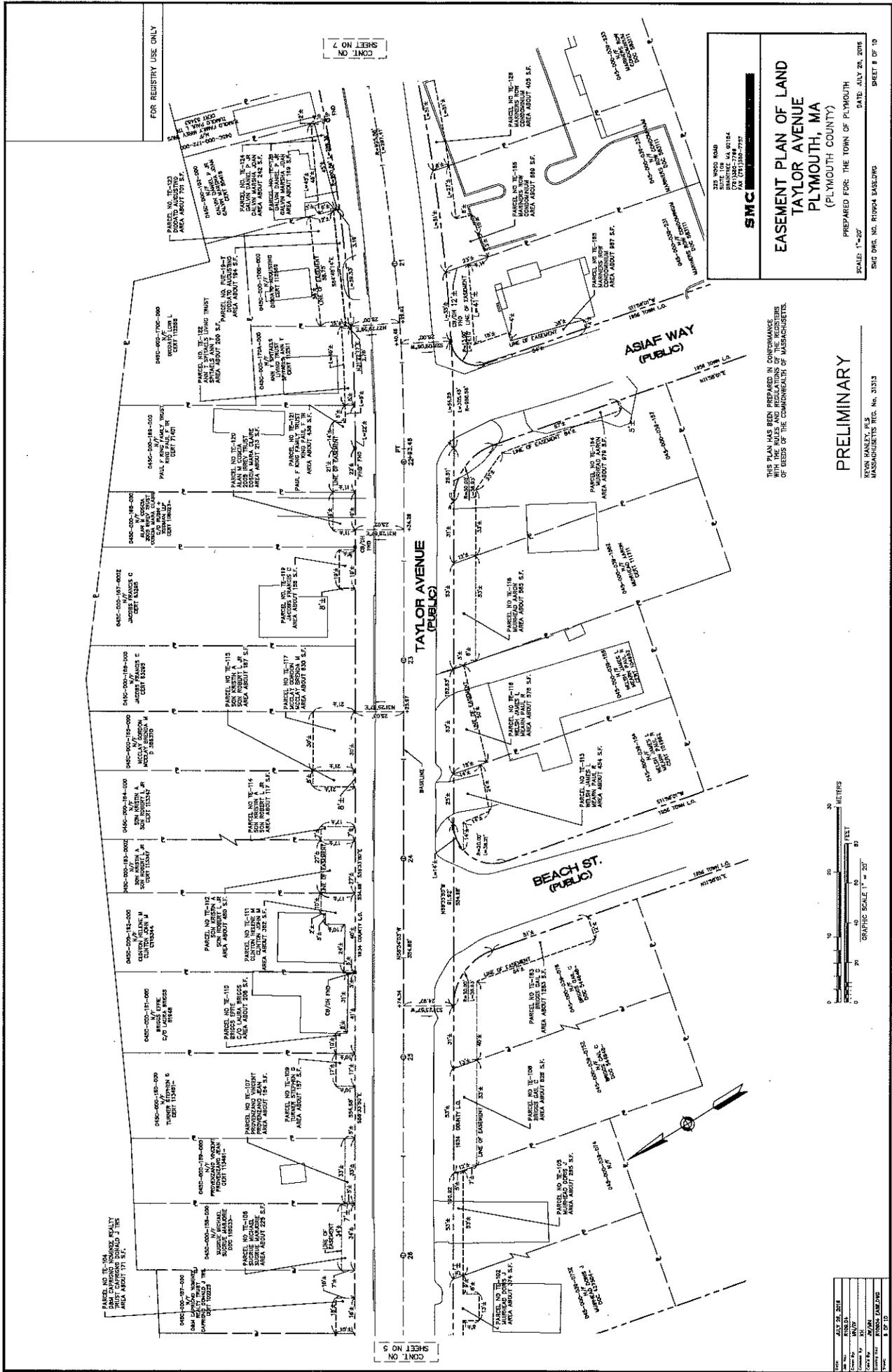
PRELIMINARY

KEVIN HANLEY, P.E.
MASSACHUSETTS REG. NO. 31313



SHEET NO. 4

DATE	07/26/2018
TIME	10:07
PROJECT	10000000
CLIENT	TOWN OF PLYMOUTH
DRAWN BY	KEVIN HANLEY
CHECKED BY	KEVIN HANLEY
SCALE	1" = 20'
SHEET	5 OF 10



CONT. ON SHEET NO. 7

FOR REGISTRY USE ONLY

SMC

720 WOOD ROAD
SUITE 108
PLYMOUTH, MA 01959
TEL: (508) 833-7777
FAX: (508) 833-7777

**EASEMENT PLAN OF LAND
TAYLOR AVENUE
PLYMOUTH, MA
(PLYMOUTH COUNTY)**

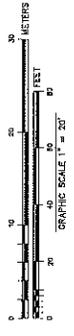
PREPARED FOR: THE TOWN OF PLYMOUTH
DATE: JULY 24, 2018

SCALE: 1"=20'
SHEET 8 OF 10
S.M.C. INC. NO. R10094 BASEDWS

THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

PRELIMINARY

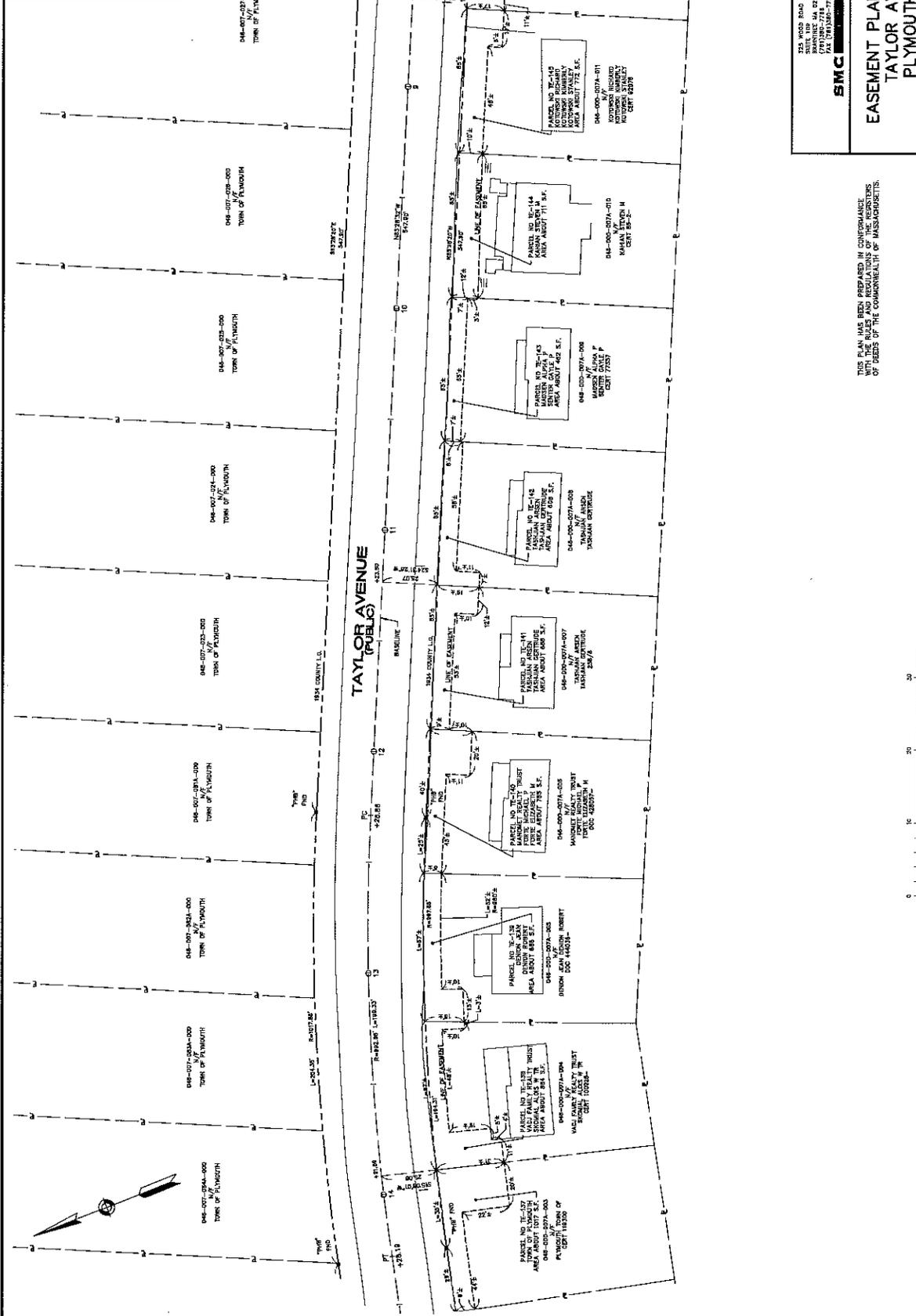
KEVIN HANLEY, P.L.S.
MASSACHUSETTS REG. NO. 31313



DATE	11.27.2017
BY	KEVIN HANLEY
FOR	TOWN OF PLYMOUTH
PROJECT	TAYLOR AVENUE
SHEET	8 OF 10

CONT. ON SHEET NO. 5

FOR REGISTRY USE ONLY



CONT. ON SHEET NO. 7

CONT. ON SHEET NO. 8

SMC

325 WOOD ROAD
 BRAINTREE, MA 02124
 TEL: (781) 871-7777
 FAX: (781) 871-7777

**EASEMENT PLAN OF LAND
 TAYLOR AVENUE
 PLYMOUTH, MA
 (PLYMOUTH COUNTY)**

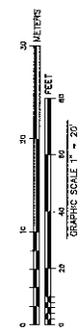
PREPARED FOR: THE TOWN OF PLYMOUTH
 SCALE: 1"=20'

DATE: JULY 26, 2018
 SHEET 8 OF 10

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

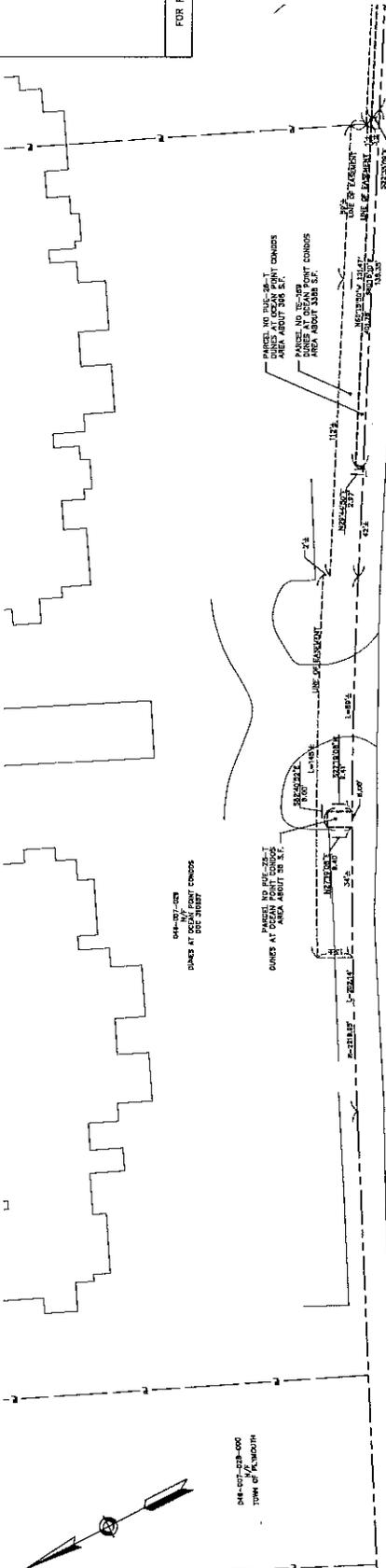
PRELIMINARY

KEVIN HANLEY, P.E.
 MASSACHUSETTS REG. NO. 31013



DATE	NOV 28, 2018
SCALE	1" = 20'
PROJECT	TAYLOR AVENUE
CITY/TOWN	PLYMOUTH
COUNTY	PLYMOUTH
PROJECT NO.	18004
SHEET NO.	8 OF 10

FOR REGISTRY USE ONLY



TAYLOR AVENUE
(PUBLIC)

SHEET NO 9
CONT.

SHEET NO 8
CONT. ON

300 MOORE ROAD
FRAMINGHAM, MA 01934
TEL: (508) 538-7757

SMC

**EASEMENT PLAN OF LAND
TAYLOR AVENUE
PLYMOUTH, MA
(PLYMOUTH COUNTY)**

PREPARED FOR: THE TOWN OF PLYMOUTH
DATE: JULY 26, 2016
SCALE: 1"=20'
SMC DME. NO. R10004 EASEJNG SHEET # OF 10

THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTRARS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

PRELIMINARY

KEVIN HANLEY, P.E.
MASSACHUSETTS REG. NO. 3103



DATE	7/26/2016
PROJECT	MOORE ROAD
DRAWN BY	SMC
CHECKED BY	SMC
DATE	7/26/2016
SCALE	1"=20'
SHEET	9 OF 10

