100 Commerce Way, Suite 5, Woburn, MA 01801 | T (781) 935-6889 | F (781) 935-2896
allenmajor.com

ALLEN & MAJOR
ASSOCIATES, INC.

December 23, 2020

Chris Bertoni
Conservation Administrator
Manchester-By-The-Sea Conservation Commission
10 Central Street
Manchester by the Sea, MA 01944

A&M Project #: 2725-01

Re: MassDEP File # 39-0834
ANRAD Supplemental Information
School Street
Assessors Map 43, Lots 18
Manchester by the Sea, MA 01944

Dear Ms. Bertoni:

On behalf of the applicant, SLV School Street, LLC, Allen & Major Associates, Inc. (A&M) is pleased to submit this supplemental information for the current Abbreviated Notice of Resource Area Delineation (ANRAD), MassDEP File 39-0834, being considered by the Commission.

The supplemental information includes data resulting from a site inspection and resource area evaluation with the Conservation Commissions peer review consultant DeRosa Environmental. The following additional resources were reviewed: Mean Annual High Water (MAHW) of Sawmill Brook and the associated Riverfront Areas located on 0 School Street, Manchester by the Sea, MA (Assessors Map 43, Lot 18). A summary narrative from Goddard Consulting, dated December 21, 2020 has been attached detailing the site inspection and providing the resulting additional data.

Enclosed please find eight (8) full packages of the supplemental information, including an the summary narrative and the stamped and signed updated Existing Conditions Plan by A&M showing the updated resource areas.

Allen & Major Associates, Inc. looks forward to discussing the application at the next Conservation Commission public hearing on January 19, 2021. Please let us know the time of the hearing. Thank you for your time and consideration. If you have any questions regarding this submittal please contact me at (781) 935-6889.

Very Truly Yours,

ALLEN & MAJOR ASSOCIATES, INC.

Carlton M. Quinn, PE
Senior Project Manager

December 21, 2020

Carlton Quinn
Allen & Major Associates
100 Commerce Way
Woburn, MA 01801

Re: Supplemental Documentation for ANRAD Peer Review
School Street - Manchester, MA
DEP File # 39-0834

Introduction

On December 3, 2020, I performed a site inspection and resource area evaluation with the Conservation Commission's peer review consultant Mike DeRosa of DeRosa Environmental Consulting, Inc. Mr. DeRosa and I inspected the delineated resource areas as shown on the plan titled "Existing Conditions," by Allen & Major Associates, Inc. dated rev. 11/18/20.

In addition to the flagged areas of Bordering Vegetated Wetland (BVW), Isolated Vegetated Wetland (IVW) and Mean Annual High Water (MAHW) of Sawmill Brook, we also inspected a topographical valley area in the southeastern portion of the property that extends eastward toward School Street. This area was not delineated as a wetland but due to the topographical conditions and presence of some hydrophytic plant species, Mr. DeRosa recommended that the upland conditions within the lowest portions of the area be documented using MassDEP Bordering Vegetated Wetland (BVW) datasheets.

We performed a close examination of the area denoted as the "C-series" on the plan. This area had been initially considered an IVW based on the presence of standing water and hydrophytic vegetation. Mr. DeRosa recommended that additional documentation be performed to verify the jurisdictional status of this area.

I performed the recommended supplemental documentation in the two areas, per Mr. DeRosa's recommendation. The methodology, results and conclusions are described in detail below. No adjustments were made to the A, B or D-series BVW flags, nor to any of the MAHW flags.

Methods

Supplemental soil test pits were hand-augured at five separate locations on December 3, including three in the southeastern portion of the property area, denoted as "TP1" to "TP3" (Figure 1), and two in the area denoted as the "C-series" on the plan denoted as "TP4" and

"TP 5" (Figure 2). Note that three additional test pits conducted on 2/2/20 are also shown on Figure 2 (orange circles). Data was collected at each test pit location in accordance with procedures for documenting BVW in the MassDEP "Delineating Bordering Vegetated Wetlands" Handbook, dated March 1995.

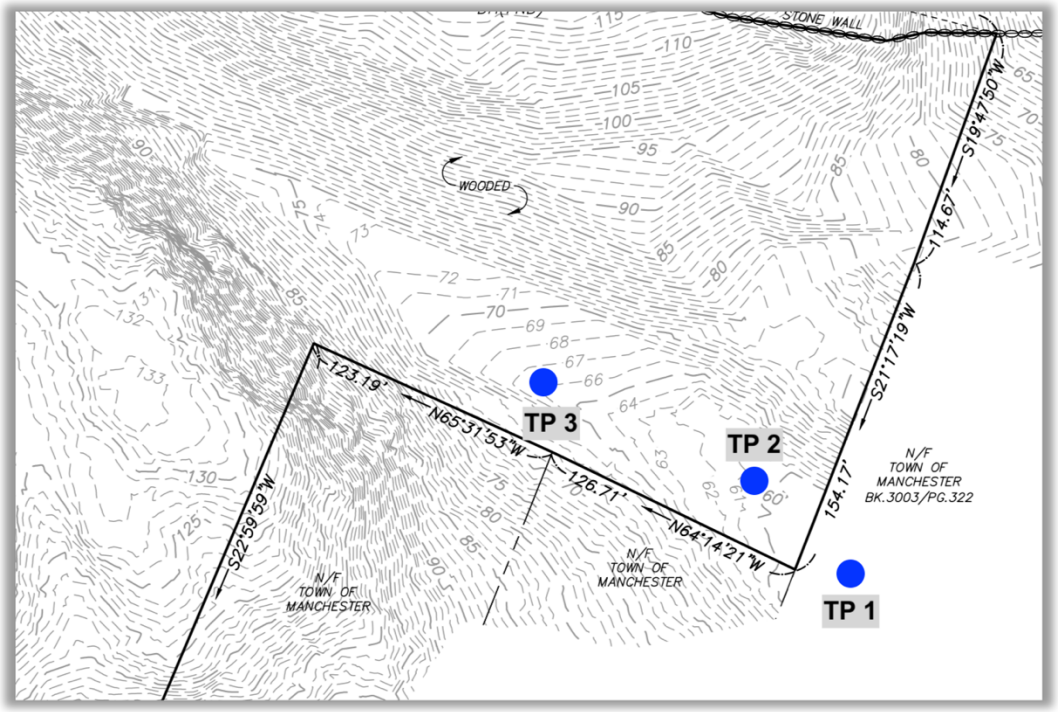


Figure 1 - Test pit locations performed on 12/3/20 in southeast portion of property.

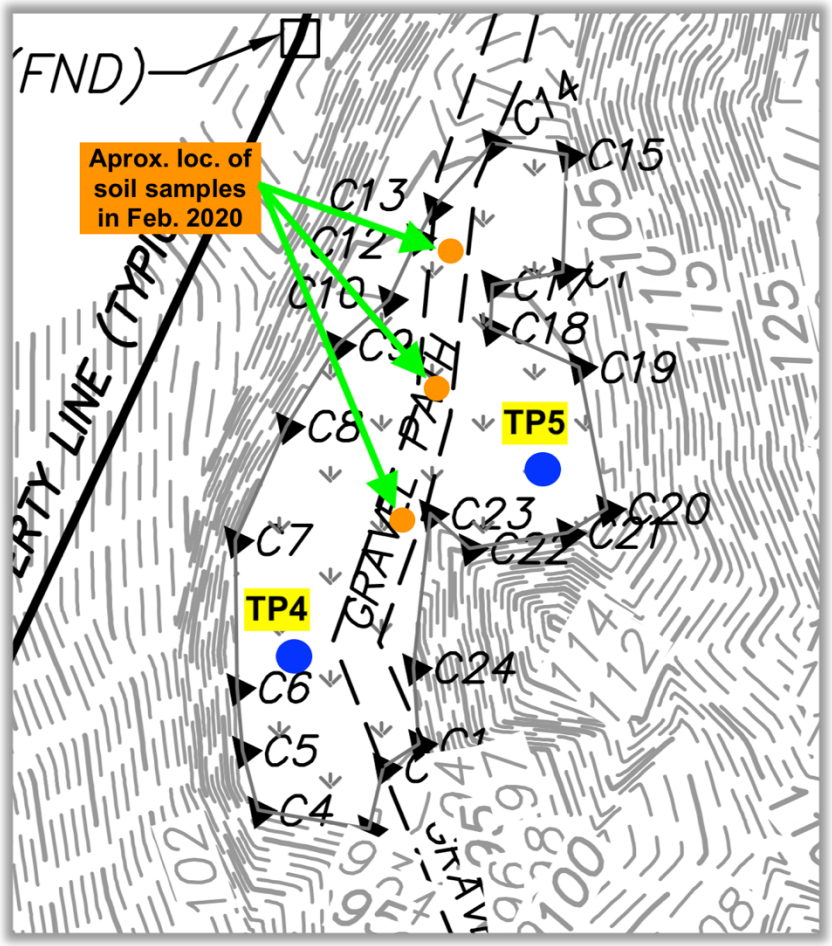


Figure 2 - Test pit locations in "C-series" performed on 12/3/20 (TP 4 & 5) and 2/2/20 (orange circles).

Results

DEP datasheets are provided for test pits 1-5. Additional details for the 2/2/20 inspection of the C-series are provided as narrative below.

TP 1-3

Test Pits 1-3 in the southeast portion of the property confirmed that upland conditions are present, despite the steep topography which creates a potential route for water to drain eastward towards School Street. Although low chroma colors were observed in the B-Horizon at TPs 1 & 2, these soils do not qualify as hydric indicators. No other indicators of the presence of a stream or BVW such as wrack lines, water staining on rocks or trees, or presence of obligate indicator plants such as Sphagnum moss were observed. Further downslope (offsite) to the east (Town of Manchester property) there were no visible wetland conditions present all the way up to School Street.

Photos 1-3 show the locations of TP1-3 respectively.

Photo 1 - TP #1.

Photo 2 - TP #2.

Photo 3 - TP #3.

TP 4-5

Test Pits 4 and 5 in the C-series confirmed that upland soils are present. Photos 4 and 5 show the locations of these test pits respectively.

Photo 4 - TP #4.

Photo 5 - TP #5.

On February 2, 2020 a small area of shallow standing water was present in the northern portions of the cart path, SW of flag #C18, approximately 300 sf in extent (Photos 6 & 7).

Photo 6 - View of standing water on cart path, facing south, taken 2/2/20.

Photo 7 - View of standing water on cart path, facing north, taken 2/2/20.

The soils at three separate locations along the cart path (Figure 2) consisted of non-hydric hard-packed sand, with 10YR 4/4 color to a depth of greater than 12 inches (Photo 8).

Photo 8 - View of soils typical within cart path portion of C-series.

In summary, three test pits within the cart path on 2/2/20 and two additional test pits within low spots on either side of the cart path on 12/3/20 confirm the absence of hydric soils from within the C-series. Eastern hemlock is the dominant plant species throughout the C-series, followed by white pine. The US Army Corps of Engineers 2018 National Wetland Plant List, v. 3.4 lists eastern hemlock (*Tsuga canadensis*) as "FACU," which is considered an upland species designation. White pine (*Pinus strobus*) is also listed as FACU. Based on the above observations, I conclude that the area originally flagged as the "C-series" is not a wetland, and therefore is not an area subject to the jurisdiction of the Wetlands Protection Act [M.G.L. c. 131, § 40] or its regulations [310 CMR 10.00].

Conclusions

The A, B and D-series BVW, plus R-series MAHW are accurately reflected on the plan dated 11/18/20. No wetland resource area is present in the topographical valley extending eastward towards School Street. The C-series should be removed from the plan, as it is not a wetland and thus not a resource area subject to the Wetlands Protection Act.

Sincerely,

GODDARD CONSULTING, LLC

by 

Daniel Wells, M.S.
Senior Wildlife Biologist and Wetland Scientist

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **SLV School Street, LLC** Prepared by: **Dan Wells** Project location: **School Street, Manchester** DEP File #: 39-0834

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **TP 1** Transect Number: **Upgradient** Date of Delineation: **3-Dec-20**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
American beech	*Fagus grandifolia*	20%	100.0%	yes	FACU
Sapling Layer					
American beech	*Fagus grandifolia*	5%	100.0%	yes	FACU
Shrub Layer					
Climbing Woody Vine					
Ground Cover					

Remarks: * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FACW, or OBL.

Vegetation conclusion:

Number of dominant wetland indicator plants: 0 **Number of dominant non-wetland indicator plants: 2**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Essex County, Southern Part - 1984**

map number:

soil type mapped: **Chatfield-Hollis-Rock outcrop complex, 15 to 35% slopes**

hydric soil inclusions: **Leicester, extremely stony**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A	0-4	10YR 2/1	loam
B	4-9	10YR 3/2	loam
C	9-12+	10YR 3/4	sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of TP 1

	yes	no
Number of wetland indicator plants >= number of non-wetland plants		**X**
Wetland hydrology present:		
hydric soils present		**X**
other indicators of hydrology present		**X**
Sample location is in a BVW		**X**

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **SLV School Street, LLC** Prepared by: **Dan Wells** Project location: **School Street, Manchester** DEP File #: 39-0834

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **TP 2** Transect Number: **Upgradient** Date of Delineation: **3-Dec-20**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Eastern hemlock	*Tsuga canadensis*	45%	69.2%	yes	OBL*
Red maple	*Acer rubrum*	20%	30.8%	yes	FAC*
Sapling Layer					
Eastern hemlock	*Tsuga canadensis*	5%	50.0%	yes	OBL*
American beech	*Fagus grandifolia*	5%	50.0%	yes	FACU
Shrub Layer					
Climbing Woody Vine					
Ground Cover					
Non-Sphagnum moss	*Bryopsida sp.*	15%	100.0%	yes	FACU

Remarks: * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FACW, or OBL.

Vegetation conclusion:

Number of dominant wetland indicator plants: 3 **Number of dominant non-wetland indicator plants: 2**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Essex County, Southern Part - 1984**

map number:

soil type mapped: **Chatfield-Hollis-Rock outcrop complex, 15 to 35% slopes**

hydric soil inclusions: **Leicester, extremely stony**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A	0-6	10YR 2/1	loam
B	6-12+	10YR 3/2	sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of TP 2

	yes	no
Number of wetland indicator plants >= number of non-wetland plants	X	
Wetland hydrology present:		
hydric soils present		X
other indicators of hydrology present		X
Sample location is in a BVW		X

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **SLV School Street, LLC** Prepared by: **Dan Wells** Project location: **School Street, Manchester** DEP File #: 39-0834

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **TP 3** Transect Number: **Upgradient** Date of Delineation: **3-Dec-20**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Sapling Layer					
Eastern white pine	*Pinus strobus*	10%	66.7%	yes	FACU
Striped maple	*Acer pensylvanicum*	5%	33.3%	yes	FACU
Shrub Layer					
Climbing Woody Vine					
Ground Cover					
Cinnamon fern	*Osmundastrum cinnamomeum*	15%	100.0%	yes	FACW*

Remarks: * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FACW, or OBL.

Vegetation conclusion:

Number of dominant wetland indicator plants: 1 **Number of dominant non-wetland indicator plants: 2**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Essex County, Southern Part - 1984**

map number:

soil type mapped: **Chatfield-Hollis-Rock outcrop complex, 15 to 35% slopes**

hydric soil inclusions: **Leicester, extremely stony**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A	0-4	10YR 2/1	loam
B	4-14+	10YR 3/4	sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of TP 3

	yes	no
Number of wetland indicator plants >= number of non-wetland plants		**X**
Wetland hydrology present:		
hydric soils present		**X**
other indicators of hydrology present		**X**
Sample location is in a BVW		**X**

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **SLV School Street, LLC** Prepared by: **Dan Wells** Project location: **School Street, Manchester** DEP File #: 39-0834

Check all that apply:
- [ ] Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- [x] Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- [ ] Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **TP 4** Transect Number: **Upgradient** Date of Delineation: **3-Dec-20**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Eastern white pine	*Pinus strobus*	25%	62.5%	yes	FACU
Eastern hemlock	*Tsuga canadensis*	15%	37.5%	yes	OBL*
Sapling Layer					
Eastern hemlock	*Tsuga canadensis*	80%	88.9%	yes	OBL*
Gray birch	*Betula populifolia*	10%	11.1%	no	FAC*
Shrub Layer					
Climbing Woody Vine					
Ground Cover					

Remarks: * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FACW, or OBL.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 **Number of dominant non-wetland indicator plants: 1**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Essex County, Southern Part - 1984**

map number:

soil type mapped: **Udorthents, smoothed**

hydric soil inclusions:

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A	0-2	10YR 2/1	loam
B	2-13 (refusal)	10YR 3/4	loamy sand

Remarks: refusal at hard packed gravel

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of TP 4

	yes	no
Number of wetland indicator plants >= number of non-wetland plants	X	
Wetland hydrology present:		
hydric soils present		X
other indicators of hydrology present		X
Sample location is in a BVW		X

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **SLV School Street, LLC** Prepared by: **Dan Wells** Project location: **School Street, Manchester** DEP File #: 39-0834

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **TP 5** Transect Number: **Upgradient** Date of Delineation: **3-Dec-20**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Eastern white pine	*Pinus strobus*	50%	66.7%	yes	FACU
Eastern hemlock	*Tsuga canadensis*	25%	33.3%	yes	OBL*
Sapling Layer					
Eastern hemlock	*Tsuga canadensis*	10%	66.7%	yes	OBL*
Gray birch	*Betula populifolia*	5%	33.3%	yes	FAC*
Shrub Layer					
Highbush blueberry	*Vaccinium corymbosum*	5%	100.0%	yes	FACW*
Climbing Woody Vine					
Ground Cover					
Non-sphagnum moss	*Bryopsida sp.*	15%	100.0%	yes	FACU

Remarks: * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FACW, or OBL.

Vegetation conclusion:

Number of dominant wetland indicator plants: 4 **Number of dominant non-wetland indicator plants: 2**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Essex County, Southern Part - 1984**

map number:

soil type mapped: **Udorthents, smoothed**

hydric soil inclusions:

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
C	0-13+	10YR 3/4	sand

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

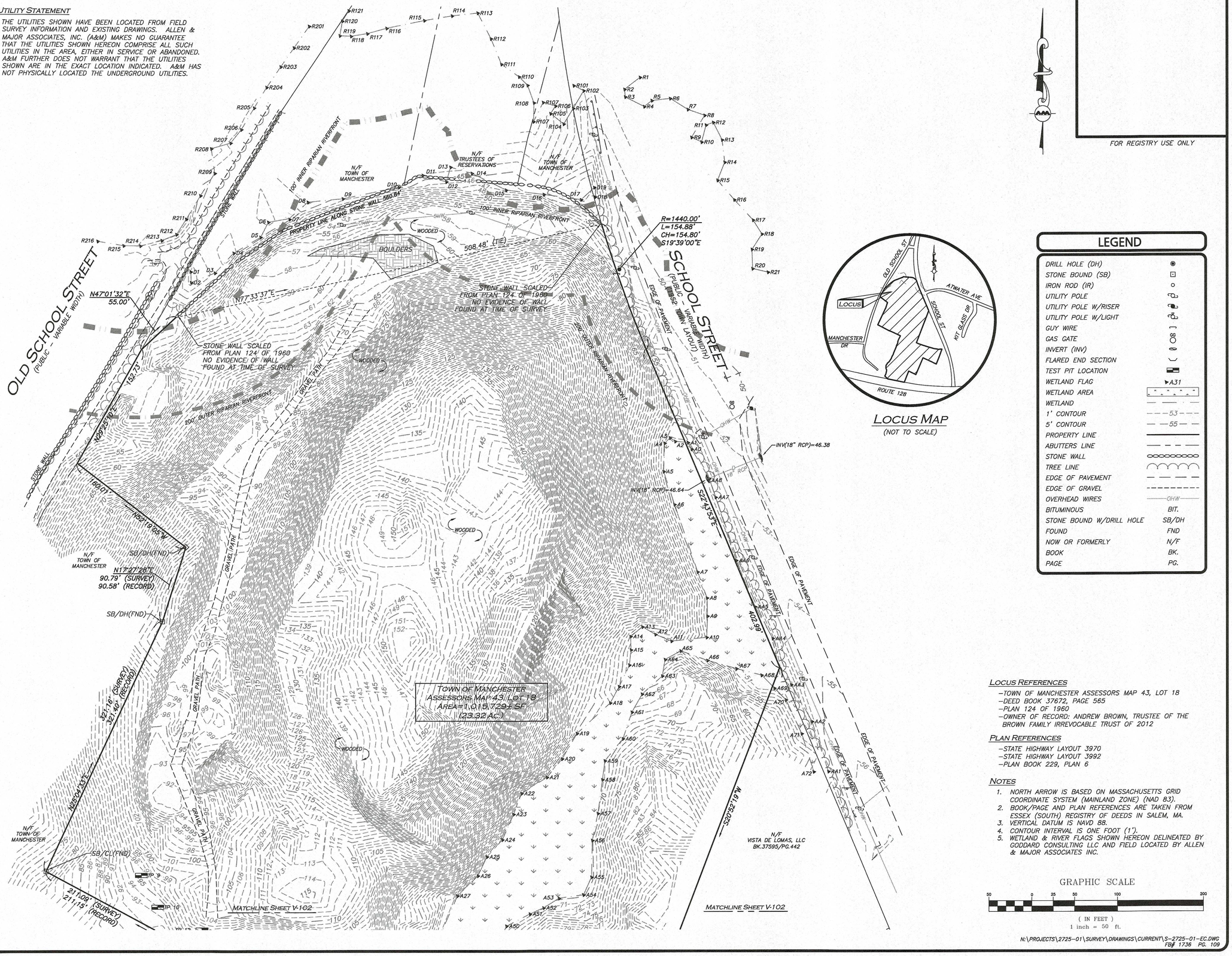
- ☑ Site inundated: standing water (outside of growing season)
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of TP 5	**yes**	**no**
Number of wetland indicator plants >= number of non-wetland plants	**X**	
Wetland hydrology present:		
hydric soils present		**X**
other indicators of hydrology present	**X**	
Sample location is in a BVW		**X**

Submit this form with the Request for Determination of Applicability or Notice of Intent

UTILITY STATEMENT

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. ALLEN & MAJOR ASSOCIATES, INC. (A&M) MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. A&M FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. A&M HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



LOCUS MAP
(NOT TO SCALE)

LEGEND

DRILL HOLE (DH)	◉
STONE BOUND (SB)	⊡
IRON ROD (IR)	○
UTILITY POLE	
UTILITY POLE W/RISER	
UTILITY POLE W/LIGHT	
GUY WIRE	
GAS GATE	
INVERT (INV)	
FLARED END SECTION	
TEST PIT LOCATION	
WETLAND FLAG	▶A31
WETLAND AREA	
WETLAND	
1' CONTOUR	53
5' CONTOUR	55
PROPERTY LINE	
ABUTTERS LINE	
STONE WALL	
TREE LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
OVERHEAD WIRES	OHW
BITUMINOUS	BIT.
STONE BOUND W/DRILL HOLE	SB/DH
FOUND	FND
NOW OR FORMERLY	N/F
BOOK	BK.
PAGE	PG.

LOCUS REFERENCES

- –TOWN OF MANCHESTER ASSESSORS MAP 43, LOT 18
- –DEED BOOK 37672, PAGE 565
- –PLAN 124 OF 1960
- –OWNER OF RECORD: ANDREW BROWN, TRUSTEE OF THE BROWN FAMILY IRREVOCABLE TRUST OF 2012

PLAN REFERENCES

- –STATE HIGHWAY LAYOUT 3970
- –STATE HIGHWAY LAYOUT 3992
- –PLAN BOOK 229, PLAN 6

NOTES

1. NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83).
2. BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM ESSEX (SOUTH) REGISTRY OF DEEDS IN SALEM, MA.
3. VERTICAL DATUM IS NAVD 88.
4. CONTOUR INTERVAL IS ONE FOOT (1').
5. WETLAND & RIVER FLAGS SHOWN HEREON DELINEATED BY GODDARD CONSULTING LLC AND FIELD LOCATED BY ALLEN & MAJOR ASSOCIATES INC.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

N:\PROJECTS\2725-01\SURVEY\DRAWINGS\CURRENT\S-2725-01-EC.DWG
FB# 1736 PG. 109

FOR REGISTRY USE ONLY

WE HEREBY CERTIFY THAT:

THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN NOVEMBER 21, 2019 AND DECEMBER 3, 2020.

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS DATED JANUARY 1, 1976 AND REVISED JANUARY 12, 1988.

ACCORDING TO DEEDS AND PLANS OF RECORD, THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIP, AND THE LINES OF THE STREETS OR WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS AND WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR THE DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

THE ABOVE CERTIFICATION IS INTENDED TO MEET REGISTRY OF DEEDS REQUIREMENTS FOR THE RECORDING OF PLANS AND IS NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO CURRENT TOWN OF MANCHESTER ASSESSOR'S INFORMATION.

THE ABOVE IS CERTIFIED TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF.

ALLEN & MAJOR ASSOCIATES, INC.

Dec 22, 2020
PROFESSIONAL LAND SURVEYOR FOR
ALLEN & MAJOR ASSOCIATES, INC.

COMMONWEALTH OF MASSACHUSETTS
NORMAN L LIPSITZ
NO. 28448
PROFESSIONAL LAND SURVEYOR
12/22/20

REV	DATE	DESCRIPTION
4.	12/22/20	WETLAND LOCATION REVISION
3.	12/11/20	TEST PIT LOCATIONS ADDED
2.	11/19/20	RIVERFRONT BUFFERS ADDED
1.	11/18/20	WETLAND/RIVER FLAGS ADDED

APPLICANT\OWNER:

SLV SCHOOL STREET, LLC
257 HILLSIDE AVENUE
NEEDHAM, MA 02494

PROJECT:

ASSESSORS MAP 43, LOT 18
SCHOOL STREET
MANCHESTER BY THE SEA, MA

PROJECT NO.	2725-01	DATE:	09/21/2020
SCALE:	1" = 50'	DWG. NAME:	S-2725-01-EC
DRAFTED BY:	KAC	CHECKED BY:	NIL

PREPARED BY:

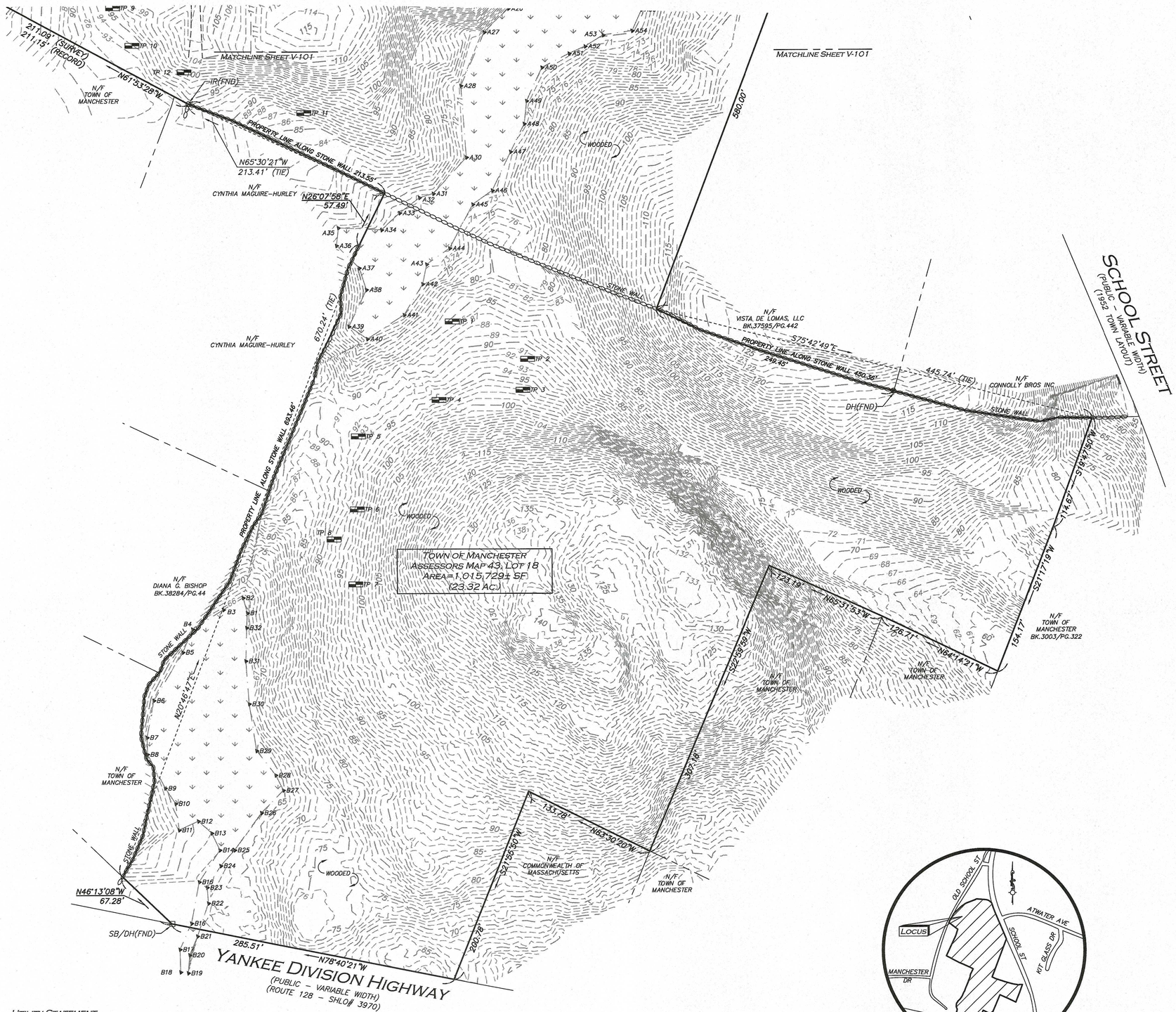
ALLEN & MAJOR ASSOCIATES, INC.
civil engineering ◆ land surveying
environmental consulting ◆ landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBURN MA 01801-8501
TEL: (781) 935-6889
FAX: (781) 935-2896
WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, NH

DRAWING TITLE:

EXISTING CONDITIONS

SHEET No.

V-101



LEGEND

DRILL HOLE (DH)	◉
STONE BOUND (SB)	□
IRON ROD (IR)	○
UTILITY POLE	
UTILITY POLE W/RISER	
UTILITY POLE W/LIGHT	
GUY WIRE	
GAS GATE	GG
INVERT (INV)	
FLARED END SECTION	
TEST PIT LOCATION	
WETLAND FLAG	▸A31
WETLAND AREA	
WETLAND	
1' CONTOUR	53
5' CONTOUR	55
PROPERTY LINE	
ABUTTERS LINE	
STONE WALL	
TREE LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
OVERHEAD WIRES	OHW
BITUMINOUS	BIT.
STONE BOUND W/DRILL HOLE	SB/DH
FOUND	FND
NOW OR FORMERLY	N/F
BOOK	BK.
PAGE	PG.

LOCUS REFERENCES

–TOWN OF MANCHESTER ASSESSORS MAP 43, LOT 18
–DEED BOOK 37672, PAGE 565
–PLAN 124 OF 1960
–OWNER OF RECORD: ANDREW BROWN, TRUSTEE OF THE BROWN FAMILY IRREVOCABLE TRUST OF 2012

PLAN REFERENCES

–STATE HIGHWAY LAYOUT 3970
–STATE HIGHWAY LAYOUT 3992
–PLAN BOOK 229, PLAN 6

NOTES

1. NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83).
2. BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM ESSEX (SOUTH) REGISTRY OF DEEDS IN SALEM, MA.
3. VERTICAL DATUM IS NAVD 88.
4. CONTOUR INTERVAL IS ONE FOOT (1').
5. WETLAND & RIVER FLAGS SHOWN HEREON DELINEATED BY GODDARD CONSULTING LLC AND FIELD LOCATED BY ALLEN & MAJOR ASSOCIATES INC.

UTILITY STATEMENT

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. ALLEN & MAJOR ASSOCIATES, INC. (A&M) MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. A&M FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. A&M HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

LOCUS MAP
(NOT TO SCALE)

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

N:\PROJECTS\2725-01\SURVEY\DRAWINGS\CURRENT\S-2725-01-EC.DWG
FB# 1736 PG. 109

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ALLEN & MAJOR ASSOCIATES, INC.

Dec 22 2020

PROFESSIONAL LAND SURVEYOR FOR
ALLEN & MAJOR ASSOCIATES, INC.

COMMONWEALTH OF MASSACHUSETTS
NORMAN I. LIPSITZ
NO. 28446
PROFESSIONAL
LAND SURVEYOR

12/22/20

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DRAWING TITLE:
EXISTING CONDITIONS

SHEET No.
V-102