

# CONSERVATION COMMISSION DETAILED AGENDA

Date: January 26, 2023

Time: 6:00 pm



## DECISIONS

### I. WETLANDS DECISIONS

#### 1. 14 Cedar Lake Drive – NOI – Construction of a Garage – DEP File #300-1151

- Owner/Applicant: Taylor Stedman    Representatives: D. Sadowski, DJ Associates
- Request: Issue OOC.
- Documents Presented: colored plan
- Jurisdiction:
  - **Buffer Zone** 10.53(1): General Provisions
    - “For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work.”
    - Sturbridge Wetland Bylaw Regs. 365-1.1E - H.; 365-1.2, 365-1.3 (see: <https://ecode360.com/35319582>)
  - Project Status Summary
    - Project includes the addition of a two bay garage attached single family home on Cedar Lake.
  - Staff Notes:
    - Proof of abutter notifications & proof of legal ad required to open hearing.
    - DEP file number issued for this project. No comments.
    - Project site is not located within Priority & Estimated Habitat.
    - Site visit performed.
    - Project is within the buffer zone (BZ) to Bank. Property contains Bordering Land Subject to Flooding (BLSF) shown as Zone AE on FEMA Maps. MAHWL noted on plan as 575.2'. This elevation needs to be shown on the plan to ensure structure is not within BLSF and flood zone for building department.
    - The proposed garage is outside the 25-ft buffer but within the 50-ft.
    - They will be removing a shed located closer to the lake and note restoring that area.
    - They are providing rain barrels for roof runoff collection.
    - Application includes review of alternate locations. Zoning setbacks and the locations of the well & sewer line limits locations. Does not appear that the structure could be cited to be located outside of the setback, however, it may be able to shift further from the resource areas.
    - Excavation is required for the footing and frost protection. Excavation would appear to impact tree roots of 42" oak near house. Tree would need to be removed. It is a large oak that has signs of decline.
    - Applicant should explore if structure could be moved further out of the 50' BZ as discussed on site.
    - Waiver request needed to include mitigation. Applicant should explore shifting over part of the driveway and/or revise the project to include removal of the tree and include replacements. Appears could lose part of driveway and still park 2 cars. Will add encroachment to front setback but may be acceptable to zoning as consistent with adjacent properties. Should be explored.

**Conservation  
Agent**

Rebecca Gendreau

**Administrative  
Assistant**

Erin Carson

**Conservation  
Commission  
Members**

Ed Goodwin

Erik Gaspar

Roy Bishop

Ted Winglass

308 Main Street.

Sturbridge, MA

01566

T 508/347-2506

[www.sturbridge.gov](http://www.sturbridge.gov)

- Staff Recommendations: Continue to next meeting to revise plan to show elevations, explore options to reduce BZ impacts & to demonstrate that waiver standards can be met. Next meeting is Feb 16<sup>th</sup>.
- 2. **505 Main Street – NOI – Demo of a commercial building, replace with a multi-family residential building with associated parking – DEP File #300-1152**
  - Owner: J. Bounphasaysonh      Applicant: STL Group      Representatives: R. Mendez, Graves Engineering
  - Request: Issue OOC.
  - Documents Presented: colored plans
  - Jurisdiction:
    - **Buffer Zone** 10.53(1): General Provisions
      - “For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work.”
      - Sturbridge Wetland Bylaw Regs.: 365-1.1E - H.; 365-1.2, 365-1.3 see: <https://ecode360.com/35319582>)
  - Project Status Summary
    - Project includes the demolition of a commercial building and replacement with residential multi-family with increased impervious surface.
  - Staff Notes:
    - Proof of abutter notifications & proof of legal ad required to open hearing.
    - DEP file number issued w/ no comments.
    - Project site is not located within Priority & Estimated Habitat.
    - Site is within buffer zone to a Bordering Vegetated Wetland located just off the property. FEMA Map included. Not shown in or near flood zones. Property is outside of Riverfront Area associated with the Quinebaug River.
    - Streams are located east and west of the property. Both are culverted where parallel with the property. The eastern stream is over 200’ away and the western one is within 100’ at the culvert discharge. Staff checked the topo maps and shown as intermittent. Staff also checked stream stats and this stream doesn’t meet criteria as perennial.
    - Site visit performed.
    - OOC previously issued here for different development. OOC has expired. It was recorded and a request for a Certificate of Compliance will need to be submitted to release the deed from the title before new project starts work.
    - As project includes an increase of impervious surface, the project is considered a new project per MA Stormwater Standards. A peer review for stormwater compliance is needed by a P.E. Staff are pleased to see the use of the bioretention basin for stormwater management. Does the stormwater system include runoff compensation for the entire lot (roof and impervious walkways)? It does not appear that any green space remains on lot outside of the restoration area on the stormwater basin slope.
    - Project includes new impervious surface within the 50’ no new structure setback. Per Bylaw Regs definitions a structure includes: “Any man-made or man-assembled impervious or partially impervious combination of materials and includes but is not limited to buildings, asphalt driveways, retaining walls, patios, swimming pools, sheds (decks, porches), framework, or any part thereof existing on, above or below the level of land or water.”
    - Project also includes work within the 25’ no disturb to include the side slopes of bioretention basin and basin outlet and splash pad within feet of the wetland. LOW shown at 11’ closest to wetland.
    - Project does include buffer restoration area, however, it is all within areas needed for grading associated with the side slope of the stromwater basin. O & M Plan should include no mow area for restoration area.
    - The applicant should clarify the extent of grading which would appear required in order to remove slope in between the existing building and rear parking area. Also appears fill required for basin and back parking area. All of this is within the 25 and 50’ setback. No change of grading shown in the rear parking rea. Modular block wall proposed along the side of parking lot. Appears there will be a grade change proposed here. There is a sloped lawn area here currently.
    - Plan shows asphalt pavement covered with brush. This area has a significant amount of Japanese knotweed growing within it. It would appear that the pavement is substantially compromised as it is heavily vegetated. The proper removal of the invasive would be recommended.

- Project isn't in compliance with local setbacks. Alternatives must be explored. It would appear that there is an opportunity here to redevelop this site and provide wetland setbacks. The new building will be larger and noted as 8 units that is an expansion which results in the increase of impervious surfaces on the property and need to work within 11' of the wetland. A reduction of units would minimize parking needs and allow for greater setbacks. It would also appear to assist with conformance w/ zoning setbacks if the building envelope was then modified. Removal of impervious in the rear of the building would allow for a modified stormwater basin design which would provide a greater setback from the wetland.
- Staff Recommendations: Staff recommend voting to require the peer review for stormwater. Continue hearing to allow applicant time to address items listed above & to receive peer review proposals. Continue to the next meeting: Feb. 16<sup>th</sup>.

**3. 698 Main Street– NOI-Construction of a commercial building with associated parking and utilities-DEP File# 300-1144**

- Owner/Applicant: J. Procon, Interstate Towing     Representative: G. Krevosky, EBT Environmental
- Request: Issue an Order of Conditions
- Jurisdiction: Buffer Zone
- Project Summary: Project includes the construction of a 7,000 sq. ft. commercial building with associated parking areas and utilities.
- Staff Notes:
  - Hearing was previously continued to allow project revisions to address peer review comments.
  - New materials have been received which include:
    - Site Plans: "Proposed Interstate Towing Facility" Revision #2 prepared by CMG last revised 12-5-22
    - Interstate Towing Building Plans, prepared by Roy S. Brown Architects dated 9-10-22
    - Stormwater Report revised 11-30-22
    - CMG Memo, dated 12-6-22
    - Pare Corp Review Memos: dated 12-4-22 and 12-6-22
  - Project has been revised twice since the last meeting to address peer review comments.
  - Peer review was conducted for both stormwater management and traffic.
  - Pare's memos have been provided. Pare is satisfied with the modifications.
  - Project has been approved by the Planning Board.
  - Project meets stormwater standards and local wetland bylaw setbacks.
- Staff Recommendations: Provided that the board is satisfied, staff recommend that the hearing is closed.
  - Vote to approve and issue an Order of Conditions pursuant to the WPA with the following special conditions:
    - Standard OOC conditions.
    - Prior to the start of work, Environmental Monitor designated to monitoring all activity within buffer zones to ensure compliance with this Order of Conditions. The Environmental Monitor shall perform site inspections bi-weekly throughout construction and submit regular progress/monitoring reports.
    - Prior to the start of work, a copy of the authorized EPA Notice of Intent and completed Stormwater Pollution Prevention Plan (SWPPP) must be submitted to the Conservation Commission.
    - Prior to the start of work, annual O & M budget and signed illicit discharge statement to be submitted.
    - Perpetual conditions for stormwater structures and fence.
    - Evidence of maintenance of the stormwater management system shall be provided to the Commission on annual basis.
  - Vote to approve and issue an Order of Conditions pursuant to the SWB with the following special conditions:
    - Conditions noted above.
    - Require a surety bond or deposit of money during work to ensure conditions are met. Funds to be returned or bond to be released upon issuance of a Certificate of Compliance. \$10,000 for commercial development of this nature required. To be released upon issuance of a Certificate of Compliance.

**4. Lot 3, 20 Fiske Hill Road & 30 Main Street (Future Road named Berry Farm) – NOI-Construction of a 68 lot manufactured housing community-DEP File# 300-1150**

- Owner: M. Sosik     Applicant: Justin Stelmok     Representative: B. Madden, LEC Environmental
- Request: Issue an Order of Conditions
- Documents Presented: n/a

- Jurisdiction: Buffer Zone & Vernal Pool Habitat (SWB only 365-1.4 & 365 5.6)
- Project Summary: Project continued. Project was previously being reviewed under DEP File #300-1132 and was withdrawn without prejudice and re-filed.
  - Staff Notes: DEP File # and comments received. DEP questions the 28 separate test pits with identical depths to seasonal high groundwater at 36". DEP noted that this is unusual to have this many consistent observations. This should be investigated.
  - Pare Corp. stormwater peer review report received. Mr. Shevlin was to present at this meeting. Oxbow Associates report received. Oxbow was to present at the meeting. Applicant has concerns with voting requirements for hearings. Has asked that peer reviewers wait to present materials as they are evaluating their options moving forward.
  - Oxbow recommends expanding VP buffer protections to extent allowable per bylaw for additional VP habitat protections. Also, notes potential conditions for board to consider such as: VP certification for extra protections afforded to VPs & Vernal Pool Monitoring.
  - Application and O & M Plan note a reduced salt program. Details on what this entails should be provided and included in the O&M Plan. Water quality degradation is a significant concern for the viability of the vernal pools.
  - Staff recommend that the board consider maximizing the extent allowable for VP habitat protections & require that it is documented that there are viable alternatives to the crossing structure, salt use and to avoid the 200' VP habitat beyond the statements included.
  - When appropriate staff would recommend conditions to include: land protection through a CR; multi-year vernal pool monitoring (as recommended & to include water quality testing of the vernal pools), VP certification (if it has not been done to date as requested), stormwater management system testing to demonstrate effectiveness as designed and outlined in the stormwater report (to include surface water quality testing & runoff rates compared to pre-development), environmental monitoring during construction w/ reporting, a bond, a detailed phasing plan as project will be conducted over multiple years, requirement to develop plan to adjust project methodologies or practices if VP populations impacted, VP water quality impacted and/or stormwater system not functioning as designed.
  - Details pertaining to land protection must be solidified before a decision is rendered. Permanent protection through a CR was discussed but since then other options are now being evaluated by the project team. The board should weigh in on this and there should be a clear path for land protection established.
  - Staff have been informed that the applicant maybe considering withdrawing this application and re-filing.
- Staff Recommendations: Staff recommends discussing with the applicant his plans moving forward with this application.

**5. 16 Mt. Dan Road –*continued* NOI – Raze and rebuild of a lakefront home – DEP File #300-1135**

- Owner/Applicant: Deborah Weber Representatives: L. Jalbert, Jalbert Engineering
- Request: Issue OOC.
- Documents Presented: n/a
- Jurisdiction: Buffer Zone, Bank
- Project Status Summary
  - Project includes the raze and rebuild of the existing house. The parking area will be expanded to park five cars with a gravel base and stone top on the opposite side of the private road. 2 sets of stairs proposed within the bank of the pond. Project has been continued to allow the Applicant to address the board's comments.
- Staff Notes:
  - New materials have been received which include:
    - a. Site Plans: "Site Plan for Weber, Gross & Bennett" Revision #5 prepared by Jalbert Engineering last revised 12-29-22
    - b. Architectural Insights Memorandum dated 12-29-22
    - c. Architectural Plans: Proposed Construction for Webber Residence" prepared by Architectural Insights dated 12-28-22
  - Narrative includes request for a waiver, summary of project revisions and outlines alternatives reviewed and mitigation provided. Also, includes construction sequence.
  - Project will result in reduction of structure within the 50' buffer by 36 sq. ft. and removes structures within 25 ft. Steep slopes along roadway to be lessened.
  - An additional tree along the shoreline will be kept. 3 originally proposed to be removed now just 2 based on arborist evaluation.
  - Applicant requesting to permit stairs on the N side of the deck. This will move the stairs vs. what is shown on the plan. Minimal change. Location of boulders may require changes here regardless.

- Impact to Bank is minimal and as noted previously appears to meet performance standards. No concerns but requires conditioning during work.
- Staff Recommendations: Provided the board is satisfied, staff recommend to vote to close the hearing.
  - Vote to approve and issue an Order of Conditions pursuant to the WPA with the following special conditions:
    - Standard OOC conditions.
    - Submit arborist report demonstrating that the landscape plantings have been installed in compliance with the approved plans. Also, to include a review of health of landscape plantings post installation for success for two growing season after installation. Deceased plants shall be replaced.
    - Bank Work:
      - A drop cloth or similar material shall be placed on the Land Under Water during work. All fallen materials shall be removed at the end of each work day.
      - All activities, which may be located within areas that are subject to high water conditions, shall only occur in low water conditions (during lake drawdown).
      - Toe of stairs must end at existing toe of Bank.
      - Applicant is required to receive all other permitting including a Chapter 91 license if required. Application to DEP required prior to the start of work or negative determination.
    - A phased erosion control plan shall be developed for the various phases of construction.
    - All trees within the work area that are to remain must be protected during work to include root zone protection. Snow fencing or another similar material shall be used. Root zone protection requirements shall be established by a certified arborist.
    - Documentation of proper patio and stormwater structures, per the plan & manufacturer specifications, must be provided to the SCC. Buried structures must be photographed before backfilling.
    - Perpetual conditions for stormwater structures.
  - Vote to approve and issue an Order of Conditions pursuant to the SWB with the following special conditions:
    - Conditions noted above.
    - Require a surety bond or deposit of money during work to ensure conditions are met. Funds to be returned or bond to be released upon issuance of a Certificate of Compliance. \$5,000 for SFH projects has been previously required.

## II. WETLAND DECISIONS

### 6. I-84 Eastbound near Mile Maker 2– Request for a Certificate of Compliance-#300-1071

- Applicant: Kyle Varela, Roux Associates      Permit Holder: David Nguyen, UPS
- Request: Issue a COC
- Staff Notes: Project was for wetland restoration which was the result of an accident on I-84. Remediation work was covered under an Emergency Certification. Roux Associates has been performing inspections and submitting reports for two growing seasons. Plant coverage was at 100% for the last inspection. 75% was required. See attached report. Due to the success of the restoration, staff recommended submitting for a CoC.
- Staff Recommendations: Issue complete CoC. No perpetual conditions. Remove any remaining erosion controls and DEP File # sign.

### 7. 34 Cedar St –Request for a Certificate of Compliance-DEP File#300-1104

- Applicant: Modern Technology      Permit Holder: Hyde Development
- Request: Issue a COC
- Staff Notes: Project is not yet complete. CoC received due to house sale. Site requires fence install, driveway drainage structure, & final stabilization. As-built plan required for site modifications. They are aware of requirements. Work is to be completed this Spring.
- Staff Recommendations: Hold off on issuing CoC until remaining work is able to be completed.

### 8. 77 Westwood Drive –Request for a Certificate of Compliance-DEP File#300-0913

- Applicant: Jalbert Engineering      Permit Holder: Mark and Jodie Gosselin
- Request: Issue a COC
- Staff Notes: Request discussed at Dec. 5<sup>th</sup> meeting. Weather allowed for 3 trees to be planted. Revised as-built plan received and staff verified trees. 3 maples planted in upper cleared area.
- Staff Recommendations: Accept as-built plan w/ project changes and issue complete CoC w/ perpetual conditions: SC#18 & 19.

**9. 11 McGilpin Road –Request for a Certificate of Compliance-DEP File#300-1033**

- Applicant: Randy Bercume                      Permit Holder: same
- Request: Issue a COC
- Staff Notes: Project has been completed for a few years. Site stabilized. Letter of substantial compliance received.  
Staff Recommendations: Issue complete CoC. w/ perpetual conditions SC #49-52. Remove remaining erosion controls and DEP File # sign.

**10. 59 Steeple View FKA 335 Main Street –Request for a Partial Certificate of Compliance for Phase IV-DEP File#300-108**

- Applicant: Lauren P. Smith                      Permit Holder: James H. MacConnell
- Request: Issue a partial COC
- Staff Notes: Partial request for Phase 4. Phase’s 1-3 had been issued. Phase 4 was just for one building. Staff could not locate the file but found the site plan w/ Planning. Staff reviewed aerial photographs and location of building is consistent w/ the plan based on location of existing roads.  
Staff Recommendations: Issue complete CoC w/ perpetual conditions: SC#22.

**III. ADMINISTRATIVE DECISIONS**

**11. Minutes of 12/5/22 & 1/5/23 to be approved**

- Staff Recommendations: Vote to accept the 12/5/22 & 1/5/23 minutes.

**IV. OLD BUSINESS**

**12. 71 Mashapaug Road**

- Staff Notes: Staff were made aware of activities occurring on this property which is in conservation jurisdiction. See attached letter for summary of actions. ECs installed, requires stabilization, plan discussed for that and filing for work.
- In addition, board had concerns about site when Town received an application for a transfer of license. Memo sent to BOS which was provided to the applicant and then to the property owner. Staff had discussed these concerns w/ CMG at the time as they called on behalf of the property owner The application was eventually denied.
- Appears activities resuming at this property. The board raised concerns with the property as the site was primarily cleared of cars in areas of jurisdiction including the buffer zone and Riverfront Areas in 2008. These areas revegetated and then were cleared in 2013 and since then have been used to store disabled vehicles.
- Those activities required review with Conservation and are in violation of the MA Wetland Protection Act and the Sturbridge Wetland Bylaw. Site is also mapped as Priority Habitat for state listed species. This facility is a Land Use with a High Potential Pollutant Load. This property had past spill releases, reported when previously owned, which are being addressed by the current owner. These releases resulted in impacts to neighboring drinking water supplies. When the new owner took over the facility, permitting from Conservation was required. No permits applied for. The property is required to be brought up to current standards and be in compliance with stormwater standards to ensure no impact to the environment and public health. BOH had raised concerns also. No state permitting/overview requirements of this type of facility.
- Impacts within Conservation jurisdiction are of significant concern and current use does not appear to be in compliance with standards.
- Property owner requested to attend meeting to discuss this. A plan must be put in place to bring the property into compliance. Staff recommend that a Notice of Intent is required to be submitted for the facility as required under the WPA and SWB. However, it must be noted that some of the activities would not appear to meet standards and restoration may be required. A review of the site and an existing conditions plan is needed to establish this.
- Staff Recommendations: Request to visit the property to review areas of concern to establish pathway moving forward.

**13. Special Land Use Application: Leadmine Mt. Conservation Area**

- Staff Notes: The Last Green Valley is proposing a Vernal Equinox Hike on March 20<sup>th</sup>. Staff will lead the hike at 10:00.

**V. ADMINISTRATIVE UPDATES**

- Committee Updates: CPA, Trails, Open Space, and Lakes

**VI. CORRESPONDENCE**

**VII. NEW BUSINESS**

**14. Agent’s Report**

**15. Next Meeting-Thursday Feb. 16, 2023 and Site Visit Schedule-Tentative-Feb.7th, 2023, 9 AM**

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**EXISTING CONDITIONS:**

14 CEDAR LAKE DR. (1955 YEAR HOUSE BUILT) – ZONE SR  
 PARCEL ID: 198-02427-014  
 LOCUS: DEED BOOK 64374, PAGES 133-136  
 PLAN BOOK 646, PLAN 110  
 FIRM PANEL: 25027C0926E, EFFECTIVE 7/4/2011

ZONING DISTRICT – SR  
 EXISTING HOUSE 1955 BUILD

YARD	SETBACK REQUIRED	SETBACK PROVIDED
FRONT	30'	68.2'
LEFT SIDE	15'	13.7'
RIGHT SIDE	15'	36.1'
REAR	15'	12.5'
LOT COVERAGE	MAXIMUM 15%	14%

ZONING DISTRICT – SR  
 PROPOSED GARAGE

YARD	SETBACK REQUIRED	SETBACK PROVIDED
FRONT	30'	68.3'
LEFT SIDE	15'	53.5'
RIGHT SIDE	15'	10.7'
REAR	15'	37.2'
LOT COVERAGE	MAXIMUM 15%	17.58%

14 CEDAR POND ROAD  
 MAP 200-02427-014  
 McLEAN, ALINE R  
 & JULIEANN

FLOOD ELEVATION = 575.2'

ON 8-26-22  
 WATER EL = 571.6'

**PROPOSED LOT COVERAGE:**

HOUSE = 1,131 S.F.  
 GARAGE = 528 S.F.  
 SUB TOTAL=1,659 S.F.

REAR DECK =125 S.F.  
 FRONT DECK= 36 S.F.  
 TOTAL = 1,820 S.F.

LOT AREA =10,350 S.F.

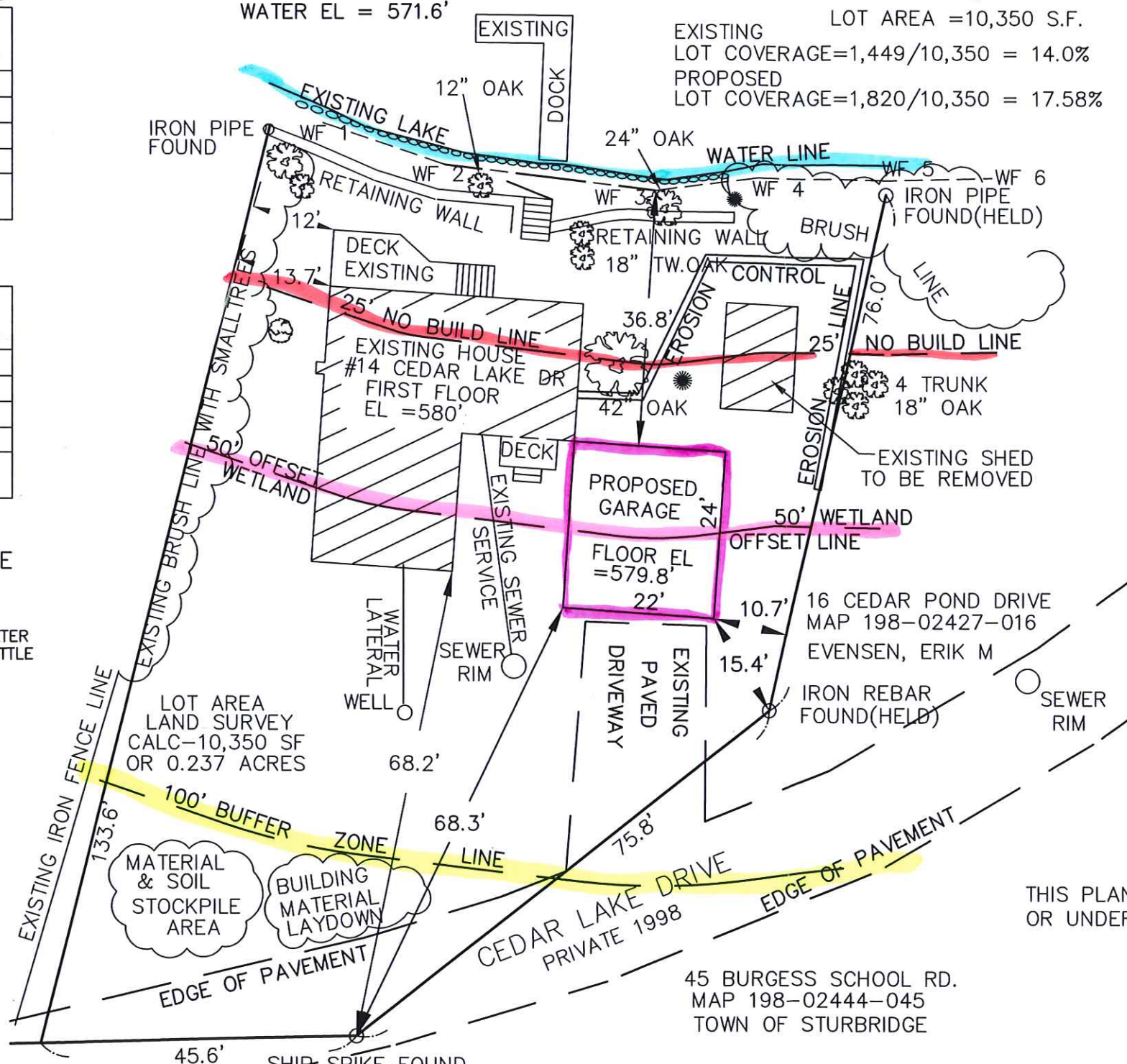
EXISTING LOT COVERAGE=1,449/10,350 = 14.0%  
 PROPOSED LOT COVERAGE=1,820/10,350 = 17.58%

**WETLAND NOTES AND CONSTRUCTION SCHEDULE**

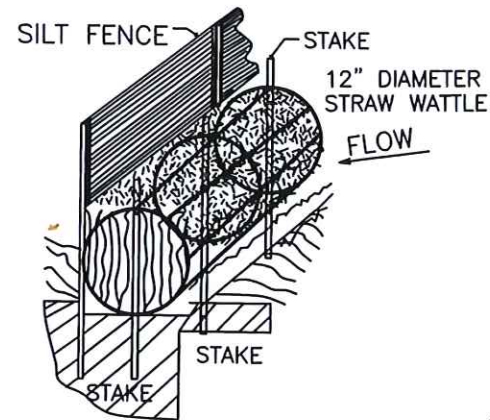
1. WORK WILL NOT COMMENCE ON THE SITE UNTIL ALL THE EROSION CONTROLS ARE INSTALLED AND INSPECTED BY AN AGENT FOR THE STURBRIDGE CONSERVATION COMMISSION.
2. EROSION CONTROLS ARE TO CONSIST OF 12" DIAMETER STRAW WATTLE WITH SILT FENCING SAFELY EMBEDDED INTO THE GROUND & SECURED.
3. NO TREES WILL BE REMOVED IN ORDER FOR THE PROPOSED GARAGE TO BE CONSTRUCTED AT ITS DESIGNATED LOCATION.
4. LIMITS OF WORK WILL BE THE EROSION CONTROL LINE. THE EXISTING TREE CANOPY WILL NOT BE ALTERED AS A RESULT OF CONSTRUCTION.

**CONSTRUCTION ACTIVITIES**

1. ONCE THE SITE HAS BEEN APPROVED BY BOTH CONSERVATION, AND ZONING, THE EXISTING LARGE SHED NEEDS TO BE DEMOLISHED, LOADED INTO DUMP TRUCKS AND/OR DUMPSTERS, AND AS SOON AS PRACTICAL, TAKEN OFF SITE TO A SUITABLE LOCATION.
2. IF THE SHED IS REMOVED, THE LAND AREA UNDER THAT EXISTING SHED WILL BE ALLOWED TO RETURN TO ORIGINAL CONDITION.
3. ANY MATERIALS WHICH MAY BE TEMPORARILY STOCKPILED, MUST BE COVERED AND STORED AT THE DESIGNATED AREA ON THE PLAN.
4. MECHANICAL EQUIPMENT AND/OR FUEL CAN NOT BE LEFT OVERNIGHT INSIDE THE 100 FOOT BUFFER ZONE.
5. FOOTINGS & A FROST WALL ARE TO BE POURED IN PLACE TO SUPPORT THE PROPOSED GARAGE. EARTH EXCAVATION WILL BE REQUIRED.
6. THE PROPOSED GARAGE LOCATION IS SHOWN ON THIS PLAN.
7. EXCESS BUILDING MATERIALS ARE TO BE STORED AT THE INDICATED LAYDOWN AREA.
8. THE PROPOSED ELECTRIC UTILITY FOR THE GARAGE WILL BE TIED INTO THE EXISTING SERVICE AT 14 CEDAR LAKE DRIVE.
9. WHEN THE CONSTRUCTION IS COMPLETED, & THE YARD HAS BEEN CLEANED OF DELETERIOS MATERIALS, A FIVE INCH THICK LAYER OF LOAM & SEED IS TO BE SPREAD ON DISTURBED AREAS TO STABILIZE THAT AREA AS SOON AS PRACTICAL.
10. THE PROPOSED GARAGE WILL HAVE A GUTTER SYSTEM W/DOWNSPOUTS. CONCRETE (2"x2"x4" THICK) SPLASH PADS BELOW EACH DOWNSPOUT. 50 GALLON RAIN BARRELS WILL BE ON THE PADS, COLLECTING THE DOWNSPOUT STORMWATER RUNOFF. THIS CLEAN COLLECTED WATER WILL BE USED TO WATER THE PLANTS AND TREES IN THE YARD.
11. ALL ELEVATIONS ARE BASED ON NAVD OF 1988. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY FINDINGS SUCH A REPORT MIGHT DISCLOSE. ANY CURRENT EASEMENTS, WHICH ARE NOT SHOWN, OR ANY POSSIBLE EASEMENTS WHICH EXISTED IN THE PAST ARE STILL VALID & IN EFFECT.



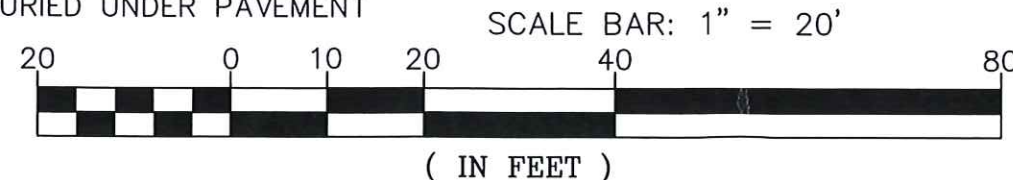
**EROSION CONTROL DEVICE**



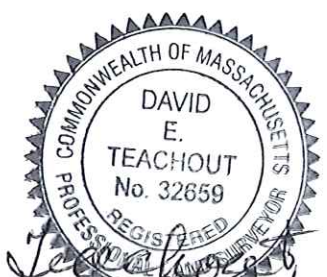
12 CEDAR POND DRIVE  
 MAP 198-02427-012  
 JEZNACH, GARY F

WAIVERS REQUIRED: DIMENSIONAL CONTROLS  
 PROPOSED GARAGE – 22' x 24'

1. LOT COVERAGE – ALLOW 17.58%; REQUIRED 15%
2. SIDE YARD SETBACK– ALLOW 10.7'; REQUIRED 15'
3. FRONT YARD SETBACK–ALLOW 15.4'; REQUIRED 30'



THIS PLAN HAS BEEN PREPARED BY ME  
 OR UNDER MY DIRECT SUPERVISION.

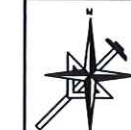


DAVID TEACHOUT P.L.S. # 32859 12/27/22  
 ASSISTED BY DAVID SADOWSKI S.I.T., C.E.

**CONSERVATION COMMISSION PLAN**

PROPOSED GARAGE PLAN  
 14 CEDAR LAKE DRIVE  
 STURBRIDGE, MASSACHUSETTS

PREPARED FOR: TAYLOR STEDMAN  
 AND OWNER OF: 14 CEDAR LAKE DRIVE  
 STURBRIDGE, MA



**D.J. & ASSOCIATES**

7 CEDAR STREET  
 CLINTON, MA 01510  
 978-875-0741

DATE: 12/27/2022 SCALE: 1"=20'

14 Cedar Lake Drive









### GENERAL NOTES

**PARCEL DATA:**  
 STREET ADDRESS: 505 MAIN STREET, STURBRIDGE, MA 01518  
 AREA: ±16,466 SQ. FT. (0.378 AC.)  
 OWNER: JENNY BOUNPHASAYSONH 126 SOUTHBRIDGE ROAD DUDLEY, MA 01571 ZONE: COMMERCIAL TOURIST DISTRICT OVERLAY: ZONE II WELLHEAD PROTECTION AREA

**NOTES:**  
 1) THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY FINDINGS SUCH A REPORT MIGHT DISCLOSE.  
 2) LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC. IN ACCORDANCE WITH CHAPTER 82 SECTION 40 INCLUDING AMENDMENTS. ALL CONTRACTORS SHOULD NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE AT 811. THE TOWN OF STURBRIDGE SHALL ALSO BE CONTACTED FOR UTILITY MARKOUTS.  
 3) PROPERTY LINE DATA AND TOPOGRAPHIC FEATURES ON THIS PLAN ARE BASED ON PLAN PREPARED BY LEVESQUE GEOMATICS INC., DATED OCTOBER 27, 2022.  
 4) THE VERTICAL DATUM FOR THIS PROJECT IS NAVD 88. HORIZONTAL DATUM IS MASSACHUSETTS STATE PLANE COORDINATE SYSTEM. DATUMS ARE AS ESTABLISHED BY GPS METHODS.  
 5) THE SITE PROPERTY IS NOT LOCATED WITHIN ANY DESIGNATION FLOOD ZONES AS SHOWN ON FIRM MAP 25027C0926E, DATED JULY 4, 2011.

**REFERENCES:**  
 DEED BOOK/PAGE: 47562/345 (WORCESTER REGISTRY OF DEEDS)  
 ASSESSORS REFERENCE: 415-02432-505

### SHEET KEY

FEATURES MARKED AS SHALL BE PROTECTED  
 FEATURES MARKED AS SHALL BE R&D  
 R&D = REMOVE AND DISPOSE (OFFSITE)  
 = R&D FEATURE



### LEGEND

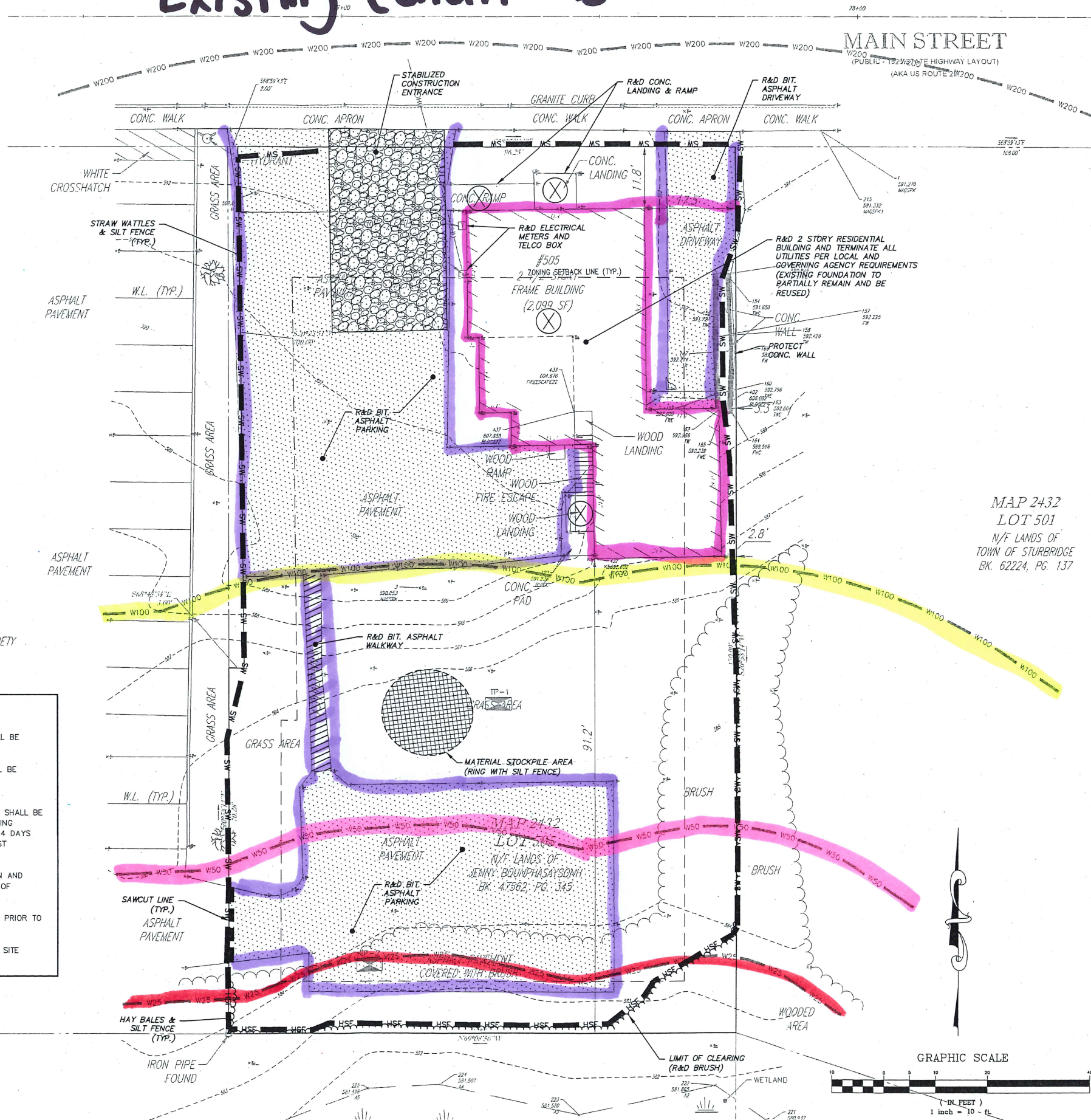
- UNDERGROUND ELECTRIC
- GAS
- DRAIN
- SEWER
- WATER
- SEWER MANHOLE (SMH)
- CATCH BASIN (CB)
- WATER GATE VALVE
- HYDRANT
- LIGHT POLE
- SOLID FENCE
- GUARDRAIL
- TREE LINE
- BITUMINOUS PAVEMENT (BIT.)
- CONCRETE (CONC.)
- TREE, SIZE, DECIDUOUS (DEC.)
- TREE, SIZE, CONIFEROUS (CON.)
- HAY BALES & SILT FENCE
- STRAW WATTLES & SILT FENCE
- INVERT
- SPOT ELEVATION
- NEW PAVEMENT AREA
- GENERAL DIRECTION OF RUNOFF
- EDGE OF PAVEMENT
- M.E. MATCH EXISTING (ELEVATION)
- H.P. HIGH POINT (ELEVATION)
- L.P. LOW POINT (ELEVATION)
- WETLAND RESOURCE AREA FLAG-NO.
- 200-FOOT BUFFER ZONE (LOCAL)
- 100-FOOT BUFFER ZONE
- 50-FOOT BUFFER ZONE (LOCAL)
- 25-FOOT BUFFER ZONE (LOCAL)

### SHEET NOTES

- 1) ALL EXISTING PAVEMENT ABUTTING NEW PAVEMENT SHALL BE NEATLY SAWCUT.
- 2) ALL ITEMS NOTED TO BE REMOVED AND DISPOSED SHALL BE PROPERLY DISPOSED OF OFFSITE.
- 3) STOCKPILE LOCATIONS (FILL MATERIALS, ETC.) SHALL BE COORDINATED WITH THE OWNER AND THE ENGINEER AND SHALL BE RINGED WITH SILT FENCE. ALL DISTURBED AREAS INCLUDING STOCKPILES, THAT WILL NOT BE RE-DISTURBED WITHIN 14 DAYS SHALL BE STABILIZED BY THE 14TH DAY AFTER THE LAST DISTURBANCE.
- 4) THE CONTRACTOR SHALL EMPLOY ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT A RELEASE OF SEDIMENT FROM THE SITE.
- 5) SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE WORK.
- 6) SEDIMENT TRACKED ON ROADWAYS ADJACENT TO THE SITE SHALL BE SWEEPED CLEAN AND REMOVED EACH DAY.

MAP 2432  
 LOT 507  
 N/F LANDS OF  
 ADVANT & BAPTISTE SOCIETY  
 (DEED NOT FOUND)

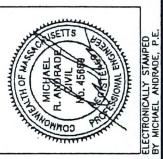
# Existing Conditions



MAP 2432  
 LOT 501  
 N/F LANDS OF  
 TOWN OF STURBRIDGE  
 BK. 62224, PG. 137

**GRAVES**  
 ENGINEERING, INC.  
 100 GROVE STREET | WORCESTER, MA 01665  
 T 508-853-0321 | F 508-853-0387  
 gravesengineering.com

NO.	DATE	BY	DESCRIPTION
1	12/22/22	MRA	ISSUED FOR PERMITTING



**SITE DEMO & SEDIMENT AND EROSION CONTROL PLAN**  
 MULTI-FAMILY RESIDENTIAL PROJECT  
 505 MAIN STREET, STURBRIDGE, MA 01518

PREPARED FOR: STL GROUP, LLC  
 P.O. BOX 638, STURBRIDGE, MA 01566

DATE: 12/22/22 SCALE: 1"=10'  
 DES. BY: ROM DRW. BY: ROM CHK. BY: MRA PRJ. NO.: 22152

C101

# Proposed w/ rain garden

## SOIL TESTING DATA

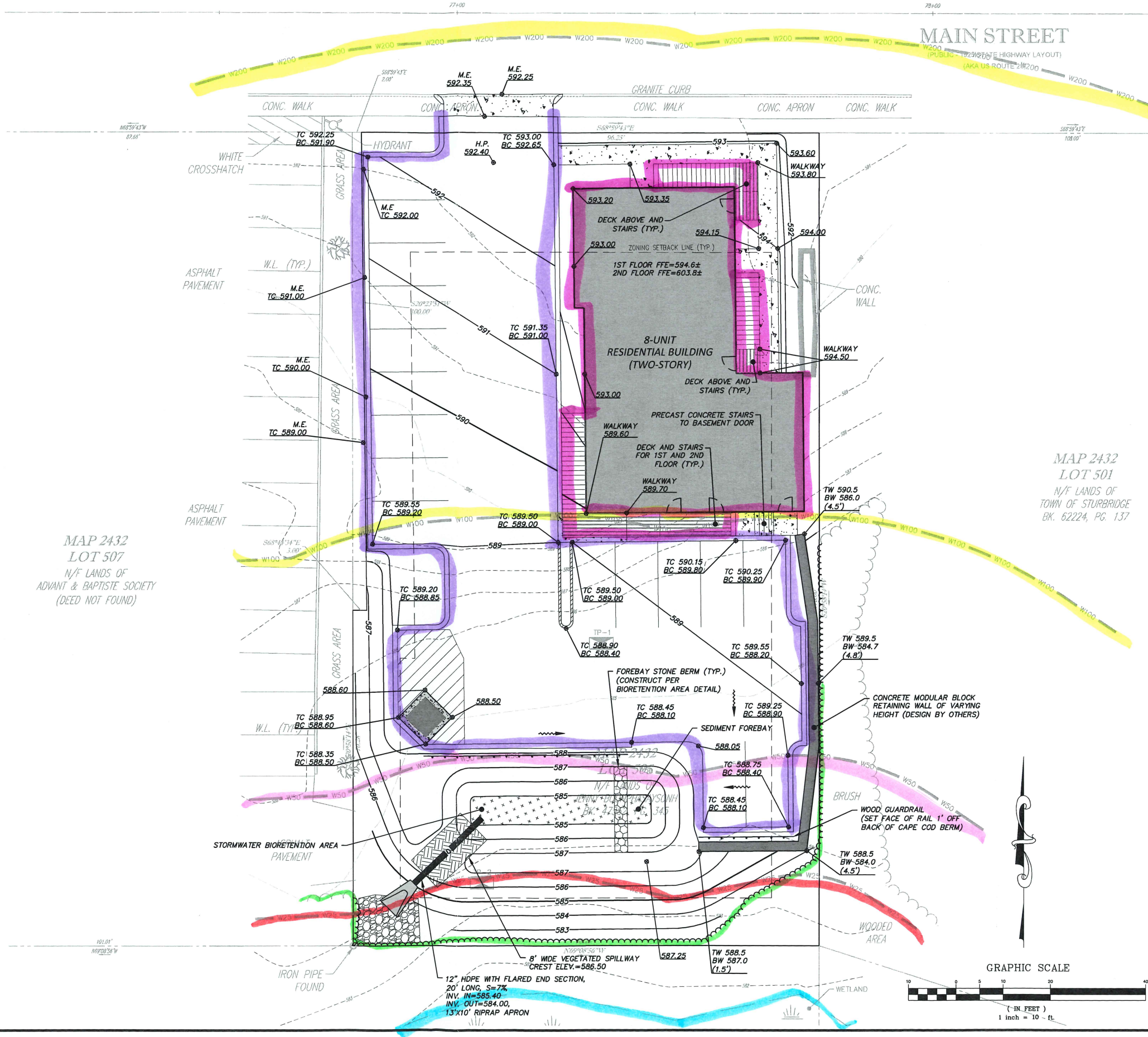
TP-1	TP-2
0 Existing Grade=585.5± 24" Ap, Topsoil, Sandy Loam 48" Bw, Sandy Loam 84" C, Sand, 50% Gravel Rounded (3-6") 578.5	0 Existing Grade=583.5± 12" Fill, 3" Minus Gravel, Loamy Sand 48" Fill, 6" Minus Gravel, Sandy Loam 58" C, Sand, 50% Gravel Rounded (3-6") 478.7
Weeping @ 65" (580.1) ESHGWT @ 48" (581.5)	Weeping @ 48" (579.5) ESHGWT @ 48" (579.5)

NOTES:  
 1) SOIL TESTING TEST PITS WERE CONDUCTED BY MICHAEL ANDRADE, P.E., MASSDEP SOIL EVALUATOR #SE2681, OF GRAVES ENGINEERING ON 12/08/22. TESTS PITS EXCAVATED BY CIESLA CONSTRUCTION WITH A TAKEUCHI TB135 MINI TRAX. TEST PITS WERE PERFORMED FOR STORMWATER MANAGEMENT DESIGN PURPOSES ONLY.  
 2) ESHGWT= ESTIMATED SEASONAL HIGH GROUNDWATER TABLE

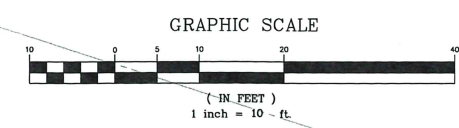
## SHEET NOTES

- PROVIDE POSITIVE DRAINAGE IN ALL FINISH GRADED WORK AREAS INCLUDING AWAY FROM ALL BUILDINGS.
- ADJUST ALL STRUCTURES (MANHOLES, WATER GATE VALVES, SHUTOFFS, ETC.) TO PROPOSED FINISH GRADES WITHIN THE LIMIT OF WORK.
- ALL DISTURBED AREAS OUTSIDE OF PAVEMENT SHALL BE RESTORED WITH 6 INCHES OF LOAM AND SEEDED OR LANDSCAPED IN ACCORDANCE WITH THE LANDSCAPING PLANS.
- ALL FINISHED GRASSED SLOPES EQUAL TO OR GREATER THAN A 3:1 SLOPE SHALL BE STABILIZED WITH AN EROSION CONTROL MATTING SUCH AS SC-150 BY NORTH AMERICAN GREEN, CURLEX II BY AMERICAN EXCELSIOR, OR ENGINEER APPROVED EQUAL COORDINATE MATTING LOCATIONS WITH THE LANDSCAPE PLANS AND GROUND COVER MATERIALS.
- PROPOSED GRADES AS SHOWN SHALL BE CARRIED TO ALL PAVEMENT CORNERS HOWEVER GRADE ADJUSTMENTS SHALL BE MADE BY THE CONTRACTOR AS NECESSARY TO PROVIDE POSITIVE DRAINAGE FROM ALL CORNERS.
- SPOT GRADE KEY:  
 (E) = EXISTING GRADE TO BE MAINTAINED      CB = CATCH BASIN  
 TC = TOP OF CURB FINISH GRADE                  HP = HIGH POINT  
 BC = BOTTOM OF CURB FINISH GRADE              LP = LOW POINT  
 FFE = BUILDING FINISH FLOOR ELEVATION        ME = MATCH EXISTING  
 VF = VERIFY IN FIELD (CONTRACTOR)  
 TW = TOP OF WALL (FINISH GRADE)  
 BW = BOTTOM OF WALL (FINISH GRADE)
- SITE SOILS PER USDA-NRCS WEB SOIL SURVEY ARE POOTATUCK FINE SANDY LOAM (MAP UNIT 2A), AND CANTON FINE SANDY LOAM (MAP UNIT 420B). ON-SITE SOIL TESTING WAS CONDUCTED ON DECEMBER 8, 2022. SEE LOG THIS SHEET.
- ALL NEW PAVEMENT AND CONCRETE SURFACES SHALL BE CONSTRUCTED TO PROPOSED GRADES AS SHOWN AND SHALL BE SMOOTH AND UNIFORM ELIMINATING DEFORMITIES, DEPRESSIONS, PUDDLES, AND TRIP HAZARDS. PROVIDE POSITIVE DRAINAGE ON ON ALL NEW PAVEMENT AND CONCRETE SURFACES, AWAY FROM BUILDINGS, AND TO EXISTING CATCH BASINS, OUTFALLS OR OTHER COLLECTION POINTS.
- UNLESS NOTED OTHERWISE, PROPOSED WALKWAYS SHALL HAVE RUNNING (LONGITUDINAL) SLOPES NO GREATER THAN 4.5%. GROSS SLOPES OF WALKWAYS SHALL BE PITCHED TO DRAIN BUT NO MORE THAN 1.5%. NEW WALKWAYS SHALL MATCH (BE FLUSH WITH) EXISTING ELEVATIONS WHERE SHOWN OR NOTED WITH CHANGES IN LEVELS (ELEVATIONS) NO GREATER THAN 1/4-INCH, AND WITH FINISH GRADES OF EXISTING AND PROPOSED BIT. WALKS, CONCRETE PADS, ETC.
- UTILITY MATERIALS, CONSTRUCTION, AND TESTING SHALL COMPLY WITH TOWN OF STURBRIDGE STANDARDS.

MAP 2432  
 LOT 507  
 N/F LANDS OF  
 ADVANT & BAPTISTE SOCIETY  
 (DEED NOT FOUND)

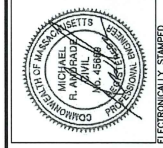


MAP 2432  
 LOT 501  
 N/F LANDS OF  
 TOWN OF STURBRIDGE  
 BK. 62224, PG. 137



**GRAVES**  
 ENGINEERING, Inc.  
 100 GROVE STREET WORCESTER, MA 01605  
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 gravesengineering.com

NO.	DATE	BY	DESCRIPTION
1	12/22/22	MRA	ISSUED FOR PERMITTING



PREPARED FOR:  
 STL GROUP, LLC  
 P.O. BOX 638, STURBRIDGE, MA 01566

DATE: 12/22/22    SCALE: 1"=10'  
 DES. BY: ROM    DRW. BY: ROM    CHK. BY: MRA    PRJ. NO.: 22152

## GRADING & DRAINAGE PLAN MULTI-FAMILY RESIDENTIAL PROJECT 505 MAIN STREET, STURBRIDGE, MA 01518

C103

505 Main St. Photos 1 of 2



505 Main St. Photos 2 of 2



**Date:** December 8, 2022  
**To:** Sturbridge Conservation Commission  
**From:** Roux Associates, Inc.  
**Subject:** Wetland Restoration Fall 2022 Inspection Report  
UPS Sturbridge – RTN 2-20994; DEP File # 300-1071  
I-84 Sturbridge, MA

On behalf of United Parcel Service, Inc. (UPS), Roux Associates, Inc. (Roux) has prepared this summary report for the wetland restoration activities associated with Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) 2-20994 for the project located along Interstate 84 eastbound (I-84E) in Sturbridge, MA (Site).

### Background

The aforementioned fuel release occurred within an area that includes a Bordering Vegetated Wetland (BVW). Disturbance to the wetland and buffer zone was necessary to remediate impacted soil. A Notice of Intent (NOI) and Wetland Restoration Plan were submitted to the Sturbridge Conservation Commission (SCC) in August 2020 and included detailed plans for the proposed wetland restoration activities. The NOI and Wetland Restoration Plan were approved by the SCC in an Order of Conditions (Order) issued on September 28, 2020. Construction activities took place between May 17 and 21, 2021, and generally consisted of: backfilling the previously excavated areas, where indicated in the NOI and Wetland Restoration Plan; planting with native herbs, shrubs, saplings, and seed mixes; and stabilizing the slope with erosion prevention materials. Since the commencement of planting activities in 2021, three summary memorandums have been submitted to the SCC to document spring and fall inspections. This supplemental memorandum serves to describe the restoration area at the end of the second growing season.

### Plant Inspection – Methods and Metrics

In accordance with the Wetland Restoration Plan and Order, the restored area was to be inspected semi-annually at the beginning and end of each growing season for the two to five-year period after planting, depending on the success of establishment. Maintenance activities will be performed when necessary and will include erosion repairs, re-planting/supplemental plantings and/or the control of invasive species (as needed). The Fall 2022 inspection was conducted on October 25, 2022.

Roux's wetland specialist inspected each individual sapling and shrub to record growth metrics, including height and estimated canopy coverage. Plant specimens were also inspected for signs of potential threats (e.g., pest damage, disease, necrosis, etc.). Due to the number of cinnamon fern and tussock sedge individuals, growth metrics for the two herbaceous species were estimated at the species level for typical growing conditions observed at the time of inspection. In addition to inspecting the planted specimens, Roux also searched the restoration area for signs of invasive species volunteers and assessed the need for removal.

Although the wetland restoration area remains relatively early on in its succession, observations were recorded for representative soil and hydrology conditions at the Site. Roux correlated this data with the planting efficacy over the two-year monitoring period to track the establishment of wetland characteristics. Based on the October 25, 2022, observations, a Monitoring Data Sheet<sup>1</sup> was prepared and is included as **Attachment A**. A photograph log is included as **Attachment B**, depicting set reference points that will be repeated for future inspection events, as needed, to achieve timelapse images of plant growth.

### Plant Inspection – Summary of Observations

Roux's wetland specialist visited the Site on October 25, 2022, for the Fall 2022 inspection at the end of the second growing season. The weather was overcast, with temperatures in the low-60s degrees Fahrenheit. Wetland hydrology was observed at the bottom of the restored slope, which was consistent with the wetland delineation findings from 2020. Ponded surface water is consistently present in wetland portions of the Site (and surrounding wetland areas) and the water levels were typical for the time of year. Soils within the edge of the main wetland area were exposed at the surface where they were previously saturated to the surface of the soil profile. This inspection resulted in the second observation of redoximorphic features in the restored wetland soils. Iron concentrations with a Munsell color of 10YR 4/6 were observed along root channels while some slight iron depletions with a Munsell color of 10YR 5/2 were observed throughout the soil matrix. This finding is consistent with the F3 Depleted Matrix hydric soil indicator.

<sup>1</sup> Massachusetts Department of Environmental Protection Replication Guidelines – March 2002.

An evaluation of the erosion control measures indicated that jute mats remained well secured by the wooden stakes, and despite several stakes having fallen over, no evidence of erosion was observed. All erosion control measures were in place during the Fall 2022 inspection, with the exception of some of the wooden stakes at the top of the slope closest to the road, which were observed to be displaced during the Fall 2021 inspection. Previous maintenance mowing activities had knocked over some of the wooden stakes closest to the highway, but the jute mats were still well secured and herbaceous vegetation was growing in to cover the ground. Towards the bottom of the slope, a small area (approximately 6 square feet) of semi-bare soil was observed. This marked a healthy increase of ground cover growth compared to the 75 square feet of semi-bare soil observed during the Spring 2022 inspection. The herbaceous growth from the planted seed mix along with native grasses and wildflowers were found to cover the ground in this location. No signs of soil erosion (e.g., silt deposits, turbid water quality) were observed. Both the wetland seed mix and the roadside matrix/upland seed mix had germinated successfully, with herbaceous growth covering nearly the entire ground surface.

Roux recorded the plant sizes for the fall inspection by measuring individual saplings and shrubs for total height from ground surface to the top of each plant's apical meristem and the diameter of branch cover. These metrics were tabulated and averaged by species type. Herbaceous plant size was estimated at the species level due to the abundance of herbaceous individuals planted. The following table summarizes the average size/growth metrics for plants at the time of the Fall 2022 inspection:

Species Name	Average Height (in)				Average Diameter (in)			
	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2021	Fall 2021	Spring 2022	Fall 2022
<b>Tussock Sedge</b>	9	26	23	35.3	5	12	Contiguous Growth	Contiguous Growth
<b>Cinnamon Fern</b>	12	Dormant	Not Present	Not Present	20	Dormant	Not Present	Not Present
<b>Button Bush</b>	34.7	32.2	22.7	30.0	23.3	23.7	17.0	25.0
<b>Maleberry</b>	21.5	21.3	24.5	22.0	12.5	10.5	14.0	10.0
<b>Grey Birch</b>	40.2	39.2	38.5	38.8	20.0	17.9	21.5	21.0
<b>Red Maple</b>	37.6	36.1	34.6	33.9	13.4	12.1	14.6	10.9
<b>Paper Birch</b>	36.3	31.4	33.6	33.8	16.5	15.3	16.4	15.9

Absolute plant coverage for the restoration area was nearly 100% at the time of inspection, including the herbaceous seed mix cover. The relative percent cover for each plant stratum and other inspection data is included in the Monitoring Data Sheet (**Attachment A**).

Compared to the Spring 2022 sapling and shrub measurements, the Fall 2022 measurements were generally consistent in height and diameter. Localized damage was observed along the ends of most of the sapling and shrub branches (e.g., snapped snags/bite marks), which is likely attributable to deer grazing. Abundant deer tracks were observed in the mucky areas of the receded waterline, confirming the presence of deer. In addition, one buttonbush shrub was not located during the Fall 2022 inspection. Given the increased height and spatial coverage of the nearby tussock sedge and the low height measurement of this buttonbush during the Spring 2022 inspection (7.5-in), it is possible that the buttonbush was outcompeted by the abundant tussock sedge. The remaining two buttonbush shrubs appeared healthy and displayed only minor evidence of pest and herbivory impact. Overall, minor pest damage and herbivory impacts to the saplings and shrubs were observed throughout the plot. The majority of branch herbivory impacted the tree stratum's diameter, with only one notable bite/break of the apical meristem on a red maple, reducing the average tree height.

With respect to the herbaceous growth, the tussock sedge individuals fully colonized the toe of the slope as a contiguous unit. Substantial growth was observed in the average tussock sedge height and spatial coverage in comparison to the Spring 2022 inspection. Additionally, the tussock sedge plants spread up the slope to fully colonize the area where cinnamon fern individuals were planted. No planted cinnamon fern plants have since been observed within the plot; however numerous cinnamon fern fronds were observed within the receded waterline at the toe of the slope. The spatial coverage of hydrophytic herbaceous plants observed in the Fall 2022 inspection represents 100% coverage, meeting the restoration goal. As mentioned above, the seed mixes for both the wetland restoration area and the roadside area have successfully germinated and established an understory herbaceous cover.



In general, the wetland restoration plants appeared to be in good health at the time of the Fall 2022 inspection. One invasive species, mugwort (*Artemisia vulgaris*) was observed within the vicinity of the restoration area at a total percentage cover of 0.01% amid ground cover that consisted primarily of grasses, clover, and aster flowers. The identified mugwort was hand-removed during the Fall 2022 inspection.

### **Summary and Recommendations**

The restoration seed and plantings are progressing as expected following the two growing seasons since installation. During the Fall 2022 inspection, one buttonbush shrub was deemed missing, and one grey birch sapling was deemed dead. The remaining planted saplings and shrubs generally exhibited good vital signs and displayed resilience in dealing with minor insect damage and/or deer herbivory. Despite prior impacts of the sawfly larvae on the buttonbush leaves during the Spring 2021 inspection, no evidence of their presence was observed during the Fall 2022 inspection. Although the cinnamon fern planted individuals were again not visible during this inspection, the tussock sedge plants have abundantly colonized the restored wetland toe of slope. Therefore, Roux does not consider the lack of cinnamon ferns as a hindrance to achieving the survivability or spatial coverage goals for the overall restoration project.

In accordance with the overall project goals, a survival rate of 75% for bare root and containerized plants was targeted for the first full growing season and was to be maintained for subsequent growing seasons during the two- to five-year monitoring schedule. Based on the Fall 2022 inspection, the one missing buttonbush and confirmed deceased grey birch sapling has decreased the overall survival rate of the restoration plot to 81%, which still exceeds the project goal.

After two full growing seasons, the spatial coverage project goal is targeted for 75% or more of the restored area. The progress observed to date (nearly 100% absolute plant coverage) indicates that this goal is met. No supplemental planting or ground-cover reseeding is warranted in 2023 based on the achieved project goals.

Based on these observations, the project goals for successful wetland restoration have been met following two growing seasons and the Site is in compliance with the Order. Therefore, in accordance with the Order, Roux recommends discontinuing seasonal monitoring at this Site and filing a Request for Certificate of Compliance.

## Appendix 4. Example Monitoring Data Sheet

(Note: this sheet should be accompanied by a plan or sketch showing the locations of the monitoring points. Representative photos should be taken at each visit)

DEP FILE NUMBER: 300-1071

Landowner Name: DOT Address: I-84E near mile marker 2

Person completing form: Max Saylor

Inspection at project stage (circle one):

- ✓ Before excavation work or erosion control installation begins to inspect site flagging;
- ✓ During excavation of the altered area if vegetation is to be translocated to the replication area to ensure survival of the plantings;
- ✓ Before soil translocation or addition, to inspect excavated elevations;
- ✓ After each stage of grading work is completed to inspect finished elevations;
- ✓ During planting and seeding and after first month of growing season to inspect propagation techniques;
- ✓ After one growing season to observe vegetation development;
- ✓ After two growing seasons to determine regulatory compliance;
- ✓ After subsequent growing seasons if greater than a 2-year monitoring program is required;

Note: when possible, monitoring should be conducted in late spring and at the end of the growing season.

Site Visit Date: October 25, 2022

Designed Size: Approximately 35' wide by 40' long

Note: length of restoration area was originally 45 feet, but was decreased by 5 feet due to maintenance mowing along I-84 in the summer of 2021.

*Note: In the post-construction monitoring phase % below should be given for each separate area or class of that particular vegetation type (example: if replication area is designed to include two shrub dominant areas, then a percentage should be given for each of the two areas). Percentages should include hydrophytic non-invasive species and non-hydrophytic non-invasive species.*

### VEGETATION & COVER

	<u>Hydrophytic/Non-Hydrophytic</u>	
% Cover herbaceous vegetation	<u>100%</u>	<u>85%*</u>
% Cover shrubs	<u>4%</u>	<u>0%</u>
% Cover trees	<u>2%</u>	<u>2%**</u>

\*The seed mix planted in the wetland buffer zone includes non-hydrophytic species.

\*\*The trees selected for the top of the slope (paper birch) are non-hydrophytic species in the buffer zone.

**Wetland Restoration Fall 2022 Inspection Report**  
*UPS Sturbridge – RTN 2-20994; DEP File # 300-1071*  
*I-84 Sturbridge, MA*

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**ATTACHMENT A**

Monitoring Data Sheet

Department of Environmental Protection  
Replication Guidelines – March 2002

%Cover woody vines	<u>0%*</u> / <u>0%*</u>	*Note that no woody vines were part of the proposed restoration activities.
%Cover aquatic vegetation	<u>20%**</u> / <u>0%</u>	**Note that aquatic vegetation was found in ponded area at bottom of slope. Aquatic vegetation was not planted as part of the restoration activities.
% Total Cover non-invasive vegetation:	<u>99.57%</u>	

% Cover invasive species 0% / 0.01%

Location and type of invasive species: Mugwort (Artemisia vulgaris) amid ground cover.

Distance to nearest potential source of invasive species: Shoulder of interstate

Efforts taken to control invasive species: Removed by hand

%Cover exposed soil 0.43%

%Cover standing water: 0% within planted restoration area (standing water in ponded area receded by ~25ft)

### **HYDROLOGY**

Unrestricted connection to neighboring water body or waterway:  
(Contiguous, isolated, channel connection): Contiguous/culvert connection below highway

Elevation of seasonal high and average groundwater table and surface water depth:  
Surface water depth was 0 inches at the bottom of slope.

Other indicators of hydrology Soil saturation within wetland area

### **SOILS**

Profile, Munsell hue, value, chroma 10YR 4/2 at toe of slope; 10YR 4/4 approx. 2-ft up slope

Evidence of mottling, gleying etc. Slight iron depletions observed. Iron concentrations observed along root channels in wetland soil boring

Ph and Eh (Redox Potential) recommended but not required Data not collected

### **OTHER**

Anticipated Succession \_\_\_\_\_

Department of Environmental Protection  
Replication Guidelines – March 2002

Are erosion control measures in place and well maintained, embankments stable, vegetated and constructed as designed? Yes

Wildlife Observed Frogs.

**Wetland Restoration Fall 2022 Inspection Report**  
*UPS Sturbridge – RTN 2-20994; DEP File # 300-1071*  
*I-84 Sturbridge, MA*

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**ATTACHMENT B**

Photograph Log



**Photograph 1:** View of I-84 Eastbound and erosion control mats on edge of highway, looking northeast.



**Photograph 2:** View of planted vegetation in restoration area, looking northwest.



**Photograph 3:** View of planted vegetation in restoration area, looking southeast from within waterline.



**Photograph 4:** View of planted vegetation in restoration area, looking north.





**Photograph 5:** View of low elevation portion of planting area, looking west, abundant tussock at water's edge. Approximate seasonal waterline annotated.



**Photograph 6:** View of low elevation portion of planting area, looking east, abundant tussock at water's edge. Approximate seasonal waterline annotated.



**Photograph 7:** View of paper birch foliage during Fall 2022 inspection, healthy leaves with very minor pest damage.



**Photograph 8:** View of maleberry bush during Fall 2022 inspection foliage (left), dried berries from growing season (right).



**Photograph 9:** View of Grey Birch displaying no recent growth, leaf-out or buds, being overtaken by proliferating tussock sedge during Fall 2022 Inspection.



**Photograph 10:** View of leaf pest damage, branch herbivory observed during Fall 2022 inspection.



**Photograph 11:** Closer view of water level receded toward culvert, in contiguous wetlands north of restoration area, looking northeast.



**Photograph 12:** Wetland restoration soil sample taken at toe-of-slope displaying evidence of strong hydric indicators (e.g., redoximorphic features).



# Town of Sturbridge

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## Conservation Commission

January 13, 2023

(via email and mailing)

Curboy Auto, Inc.  
1571 Page Boulevard  
Springfield, MA 01104

Re: Unpermitted Work  
71 Mashapaug Rd., Sturbridge, MA

Dear Mr. Privedenyuk,

As discussed on Wednesday, January 11, 2023, the Sturbridge Conservation Commission (“the SCC”) became aware of activities occurring at 71 Mashapaug Road. Work which we are aware of included vegetation removal, grubbing and grading activities. This property contains jurisdictional wetland resource areas and is within the jurisdictional buffer zone to wetland resource areas protected pursuant to the Wetlands Protection Act (M.G.L. c. 131, § 40) (“WPA”) and its Regulations (310 CMR 10.00) and the Sturbridge Wetland Bylaw (Chapter 286) (“SWB”) and its implementing Regulations. Projects or activities proposed within or adjacent to resource areas require prior review and approval pursuant to the Wetlands Protection Act and the Sturbridge Wetlands Bylaw by the Sturbridge Conservation Commission. No permits had been issued for this work. Activities conducted without permitting are a violation of the WPA and the SWB and can result in additional Enforcement Actions.

On January 11, 2023, we spoke in regards to the work occurring. During that conversation, I had informed you of the filing requirements and noted that no permits had been issued which would have been required. Work was to cease and you indicated that no further work was proposed. Immediate actions were taken to address the noted concerns as precipitation was anticipated.

To date, we have been working with representatives of CMG Environmental, Inc., on your behalf, to address the matters. CMG has taken action to address exposed soils as there were no erosion or sedimentation controls in place which could result in impacts to down gradient wetlands. To date, a silt fence and catch basin protections have been installed. CMG staff have been monitoring the site through the recent precipitation event. We also discussed options for preventing erosion as the soils are exposed and cannot be permanently stabilized until the growing season. Hydroseeding was discussed and is being explored as a measure to prevent/minimize erosion as we are outside of the growing season. The area appears to require some improvements prior to doing so. As a site inspection has not occurred, a site inspection with the SCC or their representative shall be held to review the area and to discuss any earth moving activities which may be required to improve this area. Please make arrangements to do schedule this. In addition, and as previously discussed, there still are permitting requirements for this work and any other work proposed within jurisdiction of the WPA or SWB.

The area is also mapped as Priority Habitat for state listed species. Projects proposed within Priority Habitat also require review by the MA Division of Fisheries and Wildlife’s Natural Heritage and Endangered Species Program (“NHESP”). Please make arrangements to discuss this with the NHESP.

It is important to note that the SCC had previously noted other concerns on the property related to the storage of



# Town of Sturbridge

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## Conservation Commission

vehicles. Please plan to attend the SCC's January 26, 2023 meeting to discuss the matters with the board. Thank you for your actions to address the recent concerns. We appreciate your cooperation. I can be reached at 508-347-2506 or by email at: [rgendreau@sturbridge.gov](mailto:rgendreau@sturbridge.gov).

Respectfully,

Rebecca Gendreau  
Conservation Agent

cc: MA DEP Central Region, Wetland Section  
Melanie Cheeseman, MA DFW, NHESP  
Jerry Clark, CMG Environmental, Inc.