

**Legend**

- Approximate Site Location
  - Approximate Stream Location - RIGIS
  - - - - Approximate 100 ft. Riverbank Wetland
  - Approximate Wetland Areas - RIGIS
  - - - - Approximate 50 ft. Perimeter Wetland
  - Greenhouse and Associated Clearing
  - ××× 10 ft. Limit of Disturbance
  - ▨ Restoration Area (+/- 6,336 sq ft.)
- 0 30 60 120 Feet

**LOCUS**  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED FEB 18 2022 FILE # 21-0186  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS IN SITE BEAT CONSTRUCTION SITE  
*[Signature]*  
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**Proposed Perimeter and Riverbank Resoration Plan**  
**DEM Application 21-0186**  
290 Field Farm Road  
A.P. 51, Lot 99  
Scituate, RI

- Notes for Perimeter and Riverbank Wetland Restoration**
1. The area shall be planted with the following:
    - - Arrowwood virburnum (*Virbunum dentatum*)- 40 total
    - - Sweet pepperbush (*Clethra alnifolia*)- 40 total
  2. Area shall be planted in an interspersed fashion eight feet (8') on center
  3. Shrubs shall be three feet (3') tall after planting.
  4. The restored areas shall be allowed to revegetate naturally.

**GENERAL NOTES:**

- 1) ALL DESIGN, CONSTRUCTION, AND MAINTENANCE TO BE IN CONFORMANCE WITH THE "RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS), STATE OF RHODE ISLAND, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT," AS ADOPTED NOVEMBER 25, 2018.
- 2) PROPOSED TOP OF FOUNDATION ELEVATION IS DIRECTLY RELATED TO INSTALLATION AND FUNCTIONING OF THE OWTS AND SHOULD NOT BE CHANGED WITHOUT FIRST CONSULTING DESIGNER.
- 3) ALL PIPING MUST BE SDR 35 PVC UNLESS NOTED OTHERWISE.
- 4) NO SUBSURFACE DRAINS, FOUNDATION DRAINS OR STORMWATER DRAINS MAY BE LOCATED WITHIN 25 FEET OF PROPOSED OWTS UPGRADIENT OR WITHIN 50 FEET OF PROPOSED OWTS DOWNGRADIENT.
- 5) THERE IS NO WATERCOURSE OR WETLAND AREA WITHIN 200' OF SYSTEM UNLESS SHOWN ON PLAN.
- 6) CLEAR ALL TREES AND STUMPS WITHIN 10' OF SYSTEM.
- 7) THERE ARE NO EXISTING OR PROPOSED DRAINS WITHIN 200' OF SYSTEM UNLESS SHOWN ON PLAN.

**SEPTIC TANK: (REFERENCE RI DEM OWTS SECTION 6.27)**

- 1) SEPTIC TANKS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, FIBERGLASS, POLYETHYLENE OR OTHER MATERIAL APPROVED BY THE DIRECTOR. PRECAST REINFORCED CONCRETE SEPTIC TANKS SHALL CONFORM TO THE AMERICAN SOCIETY FOR TESTING AND MATERIALS "STANDARD SPECIFICATION FOR PRECAST CONCRETE SEPTIC TANKS C-1227-02" AND ANY UPDATES THERETO. FIBERGLASS AND POLYETHYLENE SEPTIC TANKS SHALL CONFORM TO THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS "MATERIAL AND PROPERTY STANDARD FOR PREFABRICATED SEPTIC TANKS IAPMO PS 1-2004" AND ANY UPDATES THERETO.
- 2) SEPTIC TANK SHALL HAVE TWO (2) COMPARTMENTS. ONE (1) INLET AND ONE (1) OUTLET SHALL BE PROVIDED. THE INVERT ELEVATION OF THE OUTLET SHALL BE 3 INCHES BELOW THE INVERT ELEVATION OF THE INLET. THE OUTLET TEE SHALL BE EQUIPPED WITH AN EFFLUENT SCREEN APPROVED BY DEM.
- 3) THE INLET AND OUTLET PIPES SHALL BE CONNECTED TO THE TANK WITH A WATERTIGHT SEALED FLEXIBLE JOINT.
- 4) SEPTIC TANKS SHALL BE PROVIDED WITH INLET AND OUTLET TEES. THE INLET AND OUTLET TEES SHALL BE MINIMUM SDR 35 PVC SOLVENT WELDED.
- 5) A MINIMUM 20" INSIDE DIAMETER ACCESS OPENING SHALL BE LOCATED OVER BOTH THE INLET AND OUTLET TEE. THE ACCESS OPENING OVER THE OUTLET TEE SHALL BE BROUGHT TO FINISHED GRADE. OTHER ACCESS OPENINGS SHALL EITHER BE BROUGHT TO FINISHED GRADE OR WITHIN 12" OF FINISHED GRADE.
- 6) SEPTIC TANKS SHALL BE INSTALLED ON A LEVEL, STABLE BASE THAT WILL NOT SETTLE.

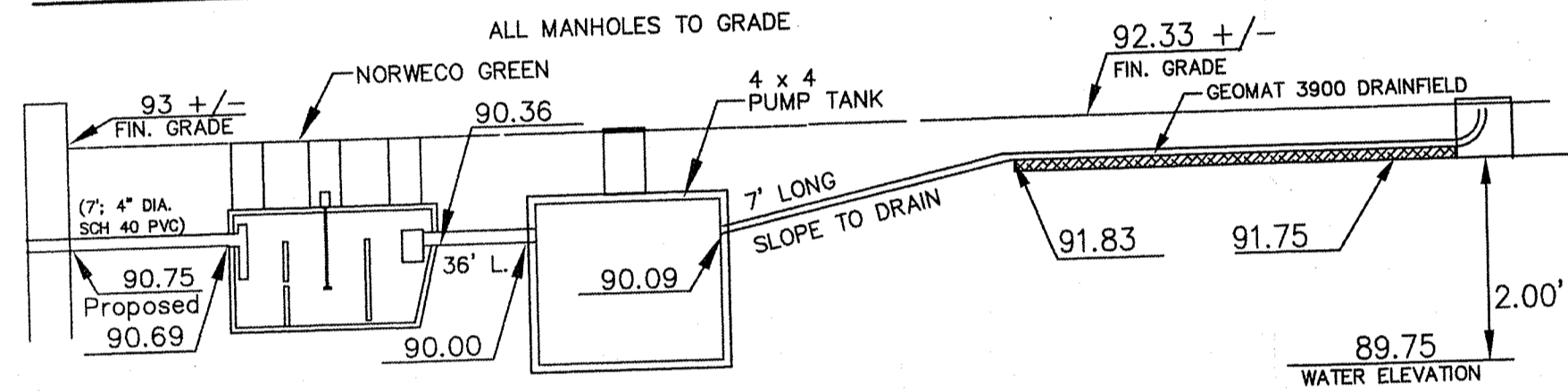
**PRIVATE WELLS: (REFERENCE RI DEM OWTS SECTION 6.23 (B) THRU 6.23 (E))**

- 1) MAINTAIN 100' MINIMUM FROM PRIVATE WELLS TO ONSITE WASTEWATER TREATMENT SYSTEM.

**BACKFILL AND FINISH GRADING:**

COMPLETE BACKFILL WITH A MINIMUM 12" OF CLEAN POROUS FILL MEASURED FROM THE TOP OF THE ELIEN MODULES. BACKFILL CAN BE NATIVE MATERIAL MEETING THE REQUIREMENTS OF RULE 32.14, ASTM C33 SAND, OR RIDEM SPECIFIED GRAVEL PER RULE 32.12. BACKFILL EXCEEDING 18 INCHES REQUIRES VENTING AT THE FAR END OF THE TRENCH. (NOT TO SCALE)

**TYPICAL SYSTEM PROFILE**



- 1) STRIP ALL SOD AND ORGANIC MATERIAL FROM BELOW BASE OF GEOMAT.
- 2) MAINTAIN ELEVATION 91.83 FOR A 5 FOOT PERIMETER AROUND GEOMAT.
- 3) MAINTAIN ELEVATION 90.09 FOR A 5 FOOT PERIMETER AROUND TANK.
- 4) COVER ALL PIPE ABOVE THE FROST LINE WITH A 2" THICK FOUNDATION INSULATION 2' WIDE, CENTERED ON THE PIPE, BY THE LENGTH OF THE PIPE BEFORE BACKFILLING.

**DRAINFIELD DESIGN**

DRAINFIELD MAX. ELEVATION:  
 USING CAT 2 GEOMAT 3900:  
 MAX. GROUND ELEV. @ DRAINFIELD: 91.75  
 SHWT @ DRAINFIELD CENTER: 91.75 - 2.00 = 89.75

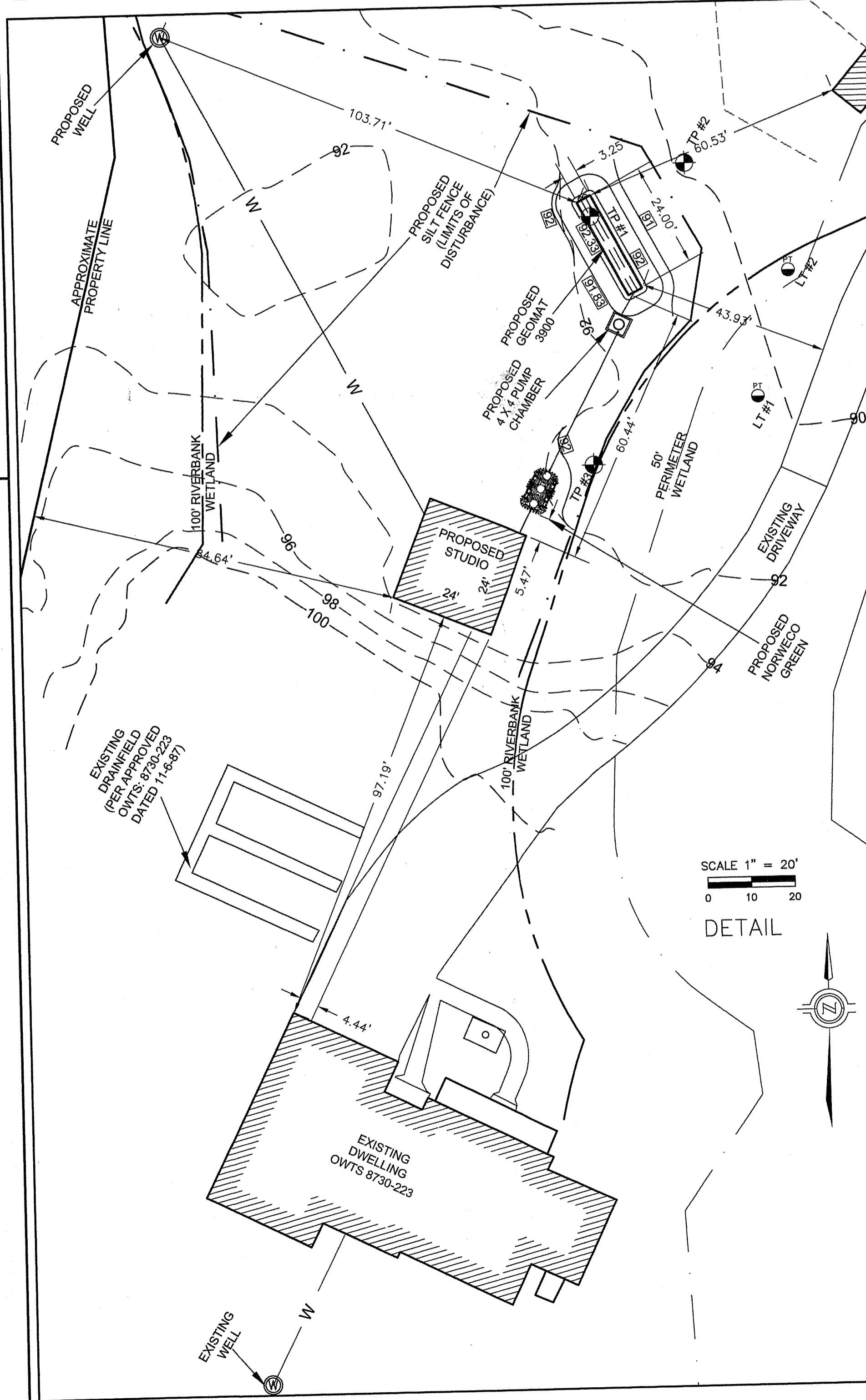
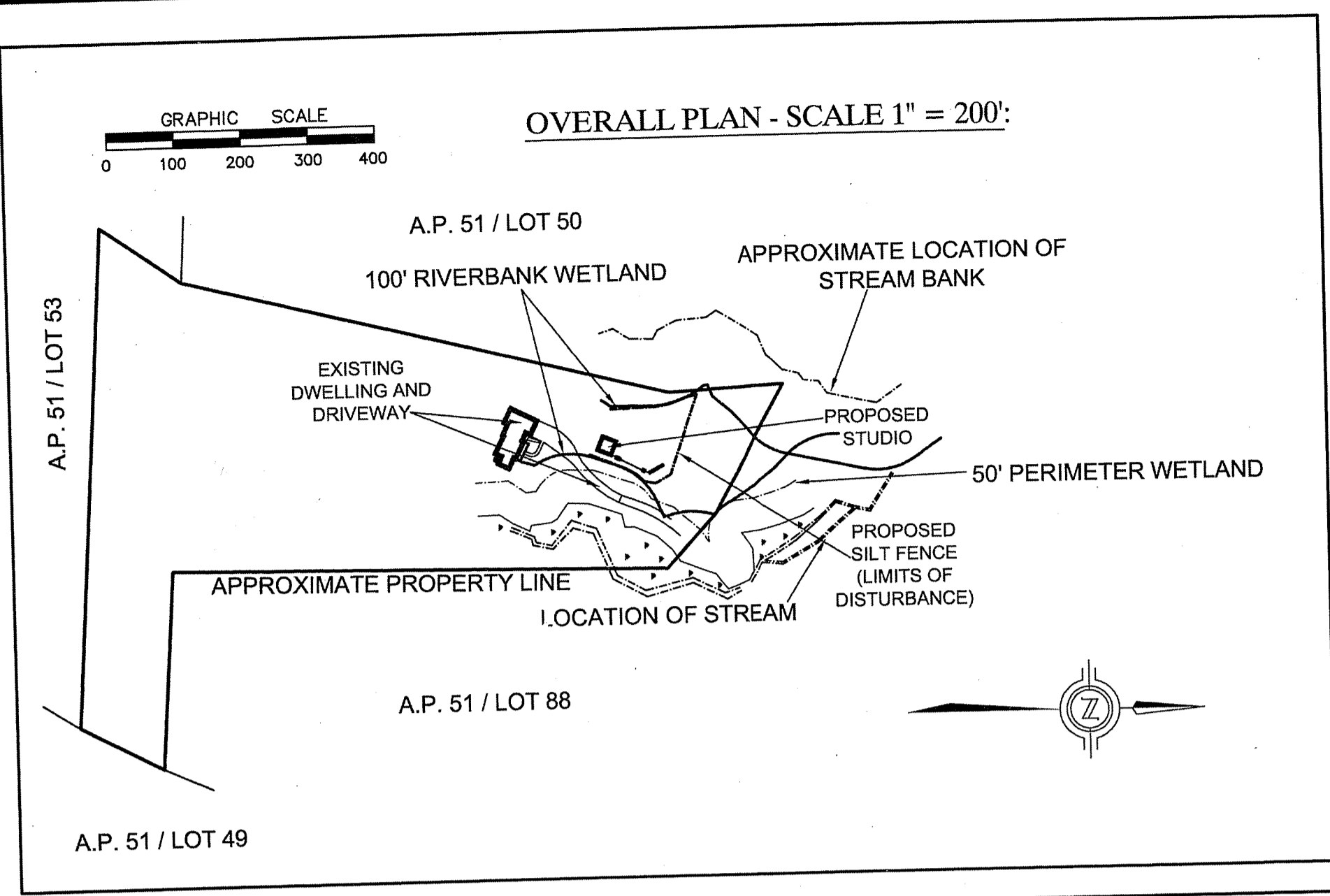
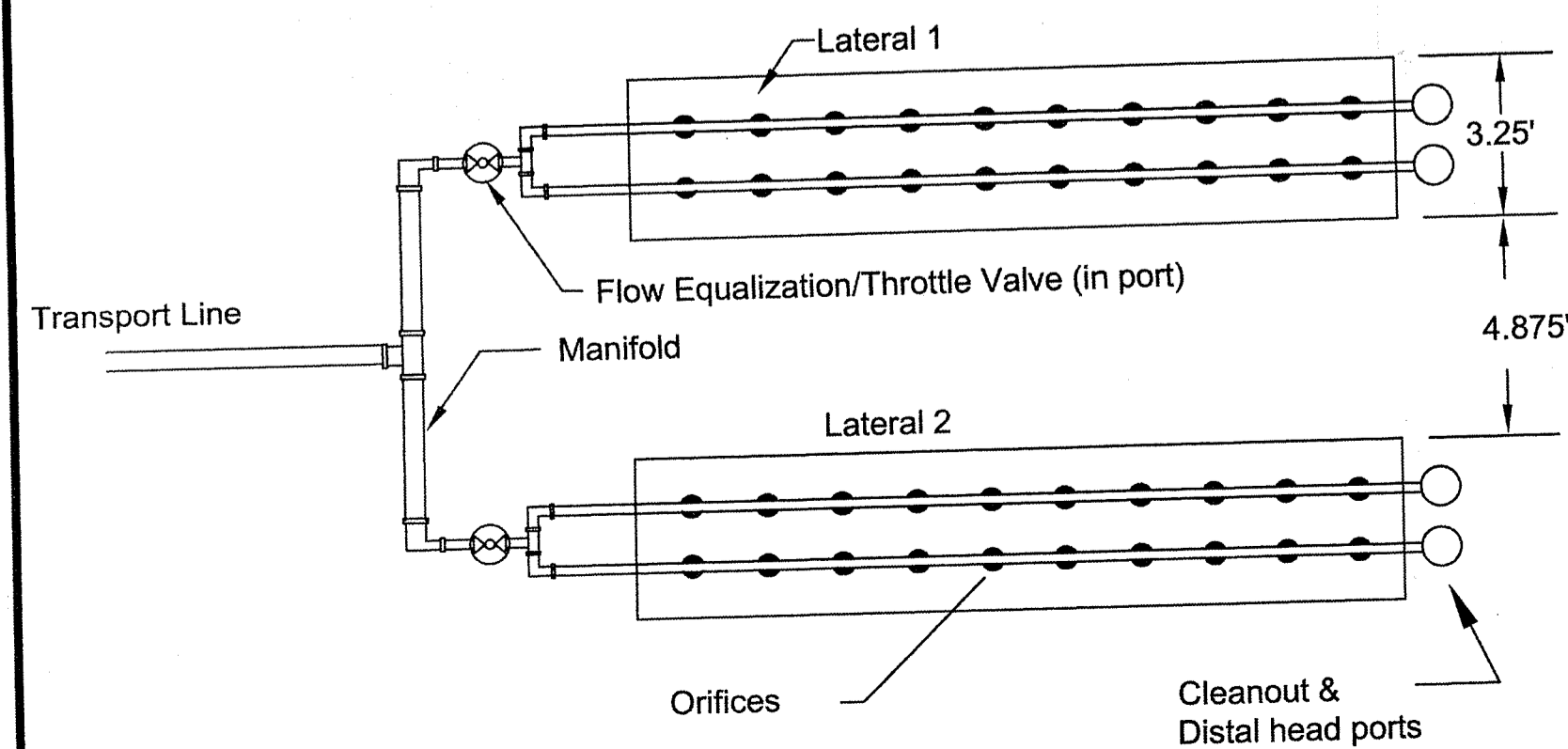
DESIGN USING 89.75' FOR SHWT ELEVATION + 2' SHWT SEPARATION  
 MINIMUM BOTTOM OF GEOMAT 91.75  
 DESIGN BOT. OF GEOMAT 91.75  
 INVERT GEOMAT 91.83  
 MINIMUM COVER 92.33  
 MAXIMUM COVER 93.33

SOIL CATEGORY G WITHIN 3' OF BASE OF DRAINFIELD  
 (DESIGN ON 1.5 GAL/S.F./DAY FOR CAT 2 SYSTEM)  
 PROPOSED 1 BEDROOM,  
 1 BEDROOMS X 1.15 GAL/DAY/BEDROOM = 1.15 GAL/DAY  
 1.15 GAL/DAY / 1.5 GAL/S.F./DAY = 76.7 S.F.  
 76.7 S.F. + 39" (1 1/2") = 23.6 L.F. REQUIRED  
 USING 1 GEOMAT TRENCHES 24 L.F. LONG

TOTAL AREA PROVIDED = (24 L.F. X 3.25 S.F./L.F. = 78.0 S.F.)  
 (78.0 S.F. > 76.7 S.F. REQUIRED)

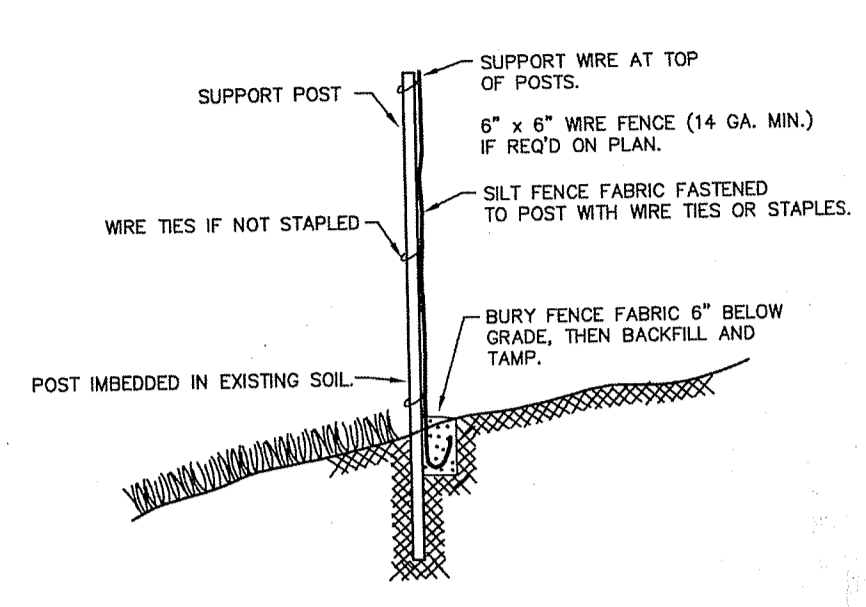
**GeoMat™ 3900 Leaching System  
 One Zone Design Example**

- Not to Scale, see site plan for configuration -



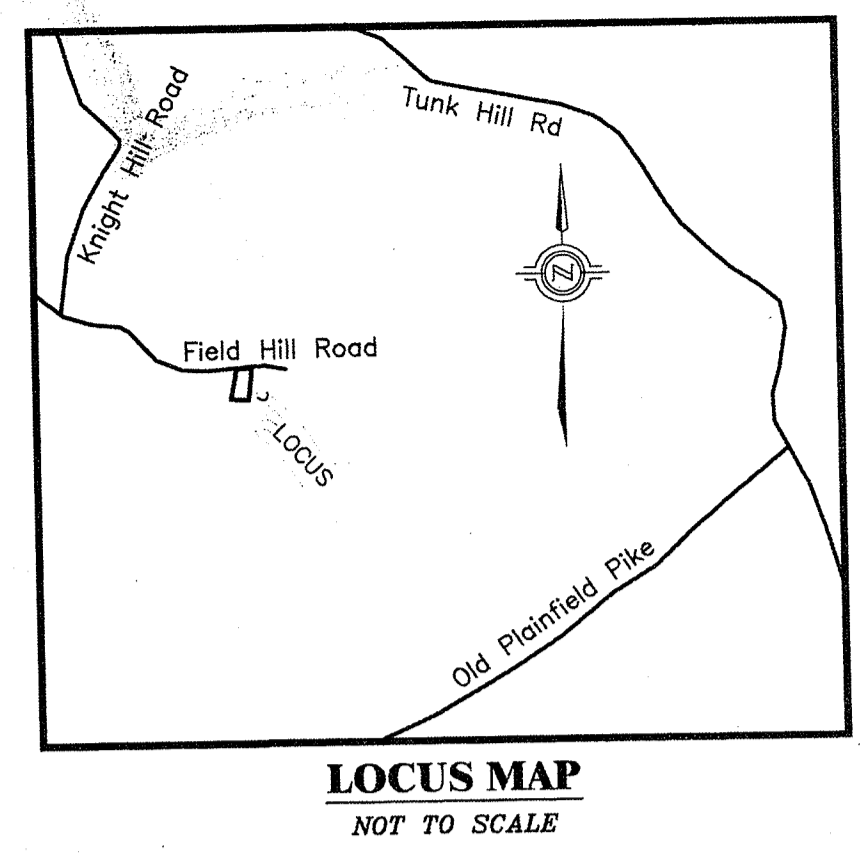
**NOTES:**

1. REMOVE ALL TREES WITHIN 10- FEET OF PROPOSED LEACHFIELD.
2. PROPERTY IS WITHIN A CRITICAL RESOURCE AREA.



**SILT FENCE DETAIL**

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



**LOCUS MAP  
 NOT TO SCALE**

**LEGEND**

- SE SOIL EVALUATION (pipe installed)
- 100 EXISTING CONTOUR ELEVATION
- 100.0 PROPOSED CONTOUR ELEVATION

**CERTIFICATION:**

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

**TYPE OF SURVEY:**

DATA ACCUMULATION SURVEY

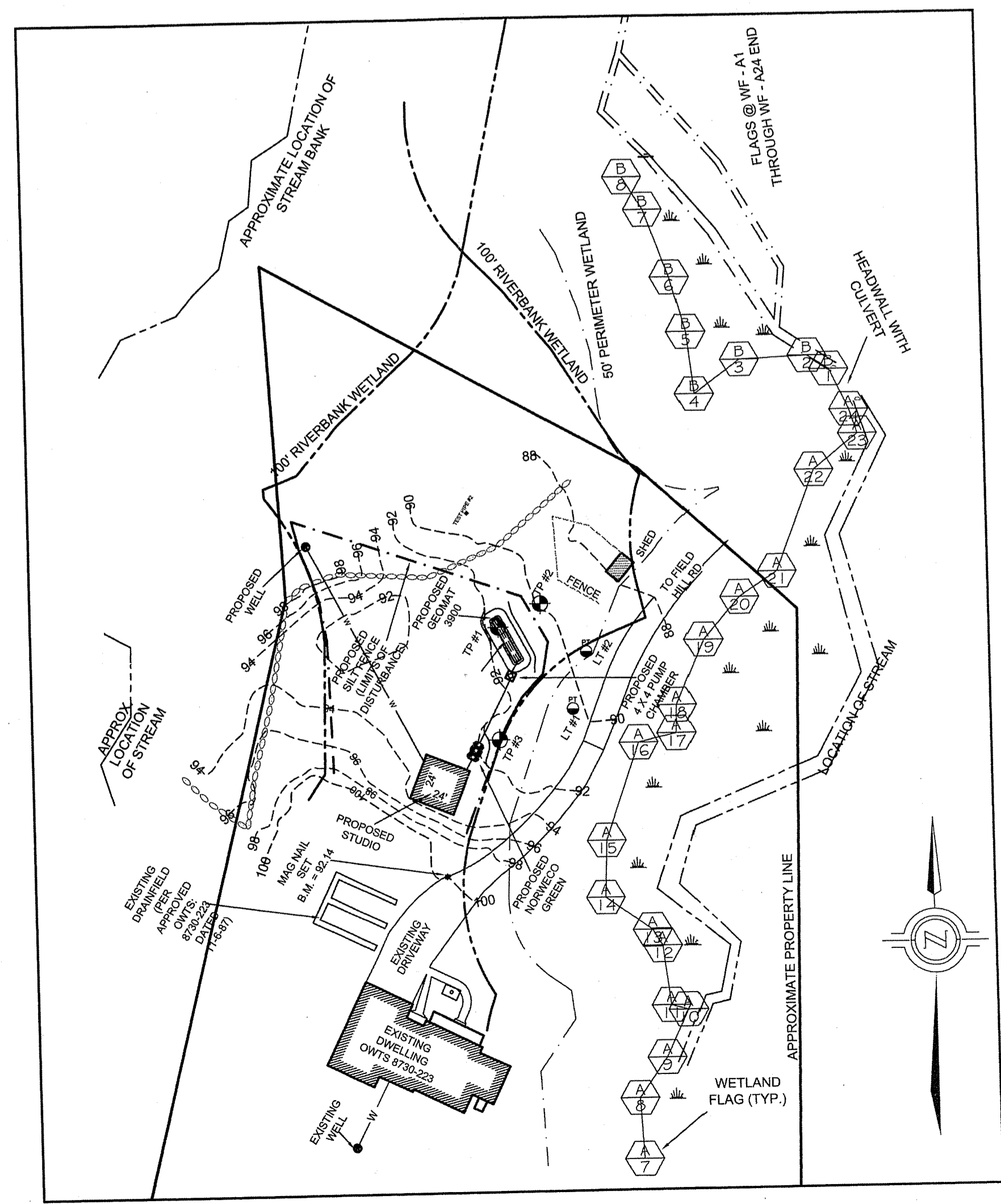
**MEASUREMENT SPECIFICATION:**

CLASS III

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:  
 TO COMPILE INFORMATION IN ORDER TO DESIGN AN OWTS NEW BUILDING CONSTRUCTION

BY: *[Signature]* DATE: 6/30/21  
 BY: RICHARD T. BZDVARA, PLS; LICENSE #1786; COA # LS-A60

Environmental Management  
**JUL 01 2021**  
 Office of Water Resources



**Ocean State Planners, Inc.**  
 SURVEYORS • DESIGNERS  
 1255 OAKLAWN AVENUE CRANSTON, RI 02920  
 PHONE (401) 463-9696 EMAIL: info@ospplanners.com

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN LETTER OF APPROVAL  
 DATED FEB 10 2022 FILE # 21-006  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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REVISION:  
 JUNE 10, 2021

DATE: MAY 7, 2021  
 DRAWN BY: OSP  
 SCALE: 1" = 40'

GRAPHIC SCALE  
 0 20 40 60 80

SHEET  
**1**  
 OF 2 SHEETS

JOB NO. 9819  
 DWC. NO. 9819-ALT

