

**Town of Bourne
Zoning Board of Appeals**

**APPLICATION FOR SUPPORTIVE FINDING FOR PERMISSION
TO EXTEND OR ALTER A PRE-EXISTING NON-CONFORMING STRUCTURE
OR USE under Section 1331, Section 2320
and/or**

**APPLICATION FOR SPECIAL PERMIT under Section 2450 of the Bourne Zoning
Bylaw and under Massachusetts General Laws, Chapter 40A, Section 9**

Date: April 19, 2024

1. Applicant Full Name: Seven Stens Trust, Paul H. & Madeline K. Stenberg, Trustees
2. Mailing Address: 32 Damon Road
3. City/State/Zip: Needham Heights, MA 02494
4. Telephone: 781-492-5835 Email: careysten@gmail.com
5. Property Owner Full Name (if different): SAME
6. Mailing Address: _____
7. City/State/Zip: _____
8. Property Affected Address: 435 Circuit Avenue
9. Village/Section of Town: Pocasset
10. Zoning District: R-40 Map: 43.3 Parcel 168 Book: 35689 Page: 73
11. Dimensions of Lot: 75.52' 125' Area: 5,461
(Frontage) (Minimum Average Width) (Square Feet)
12. Describe specifically the nature of your request:
Supportive Finding/Special Permit to raze and rebuild a pre-existing, non-conforming
single-family dwelling and accessory dwelling on a pre-existing, non-conforming lot
and replace it with a single-family dwelling per Section 2320 of the Bylaw.

Application for Special Permit (continued)

13. Generally state or attach information necessary explaining what impact, if any, granting the Special Permit will have upon pedestrian and vehicular flow and safety.

There will be no impact on pedestrian or vehicular flow and safety and an increase in on-site parking.

14. Generally state or attach information explaining what impact, if any, granting the Special Permit will have upon the adequacy of utilities and other public services.

There will be no impact on the adequacy of utilities and other public services.

Services already existing at the lot.

15. Generally state or attach information explaining what impact, if any, granting the Special Permit will have upon the natural environment.

The proposed project is taking place entirely within previously disturbed areas. The proposed dwelling will be

served by an Innovative Alternative Septic System equipped with Nitrogen removal technology providing

enhanced wastewater treatment within a Nitrogen Sensitive location (Red Brook Harbor)

16. Generally state or attach information explaining what impact, if any, granting the Special Permit will have upon nearby developed premises.

The side yard setback minimum requirements shall be maintained and the proposed foundation system shall be

built in conformance with current FEMA standards for construction within a coastal floodplain. Coastal floodwaters will inundate the proposed foundation and recede without displacing floodwaters onto adjacent properties.

17. Is the property affected in a Water Resource district, and if so, generally state or attach information explaining the contribution, if any, granting the Special Permit will have to the cumulative impact upon public water supplies.

The property does not fall within a Water Resource District.

Application for Special Permit (continued)

18. Generally state or attach information explain what impact, if any, granting the Special Permit will have upon the Town's needs for year-round housing available for persons of all income levels.

The property maintains a single-family home within the Town of Bourne.

19. If the application is for an extension or alteration of a non-conforming structure or use, state generally attach information explaining why the extension or alteration will not be substantially more detrimental to the neighborhood than the existing non- conforming use or structure.

The existing detached accessory dwelling is currently located within the layout of Pequot Avenue by approximately 1.1'. The proposed structure

shall conform to minimum side yard setbacks, improve front yard setbacks and shall be located within the lot bounds.

GFA and lot coverage requirements shall be in compliance with the standards set forth by the bylaw.

20. If the application is for a Special Permit to exceed the maximum gross floor area or lot coverage permitted by the Table in section 2456 of the bylaws, please state:

- a) The current gross floor area, in square feet and as a percentage of the lot area:
2,835 sq. ft. 50.2 %
- b) The maximum gross floor area allowed by the Table, in square feet and as a percentage of the lot area:
1,410 sq. ft. 25.0 %
- c) The gross floor area after the project is complete, in square feet and as a percentage of the lot area: 2,835 sq. ft. 50.2 %
- d) The current lot coverage, in square feet and as a percentage of the lot area:
1,913 sq. ft. 33.9 %
- e) The maximum lot coverage allowed by the Table, in square feet and as a percentage of the lot area: 1,410 sq. ft. 25.0 %
- f) The lot coverage after the project is complete, in square feet and as a percentage of the lot area: 1,410 sq. ft. 25.0 %
- g) What is the "good and sufficient cause" such that the failure to grant the increase/departure from the Table would result in exceptional hardship to the applicant, or what is the conflict with existing laws.
- h) State the minimum increase/departure from the Table that will afford the applicant relief from the hardship, or from a conflict with existing laws:
Gross floor area: N/A sq. ft. N/A %
Lot coverage: N/A sq. ft. N/A %

Application for Special Permit (continued)

21. Attach the "Nonconforming Lot Coverage Worksheet" with the necessary calculations for maximum floor area, maximum lot coverage and maximum building height as defined by the table detailed in Section 2456, signed by the Town Planner or his/her designee.

22. Supporting Documents: ***(Check what documents are included)***

Bourne Assessors Map

☒

Plot/Site Plan

☒

Building Plan

☒

List of Abutters

☒

Other: _____

Directions to the site

☒

Gross Area/Lot Coverage Worksheet:

☐

Submitted to Julia Gillis

Applicant Signature: _____

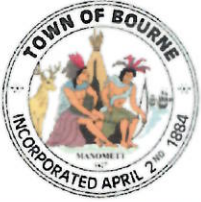
Julia C. B.

BRACKEN ENG, INC

AGENT FOR OWNER

Date: _____

4/19/24



TOWN OF BOURNE
Board of Assessors
24 Perry Avenue
Buzzards Bay, MA 02532
(508) 759-0600 Ext. 1510



Michael Leitzel, Chairperson
Ellen Doyle Sullivan, Clerk
Donna Barakauskas, Member

Rui Pereira, MAA
Director of Assessing

March 29, 2024

Seven Stens Trust
c/o Bracken Engineering, Inc.
49 Herring Pond Rd.
Buzzards Bay, MA 02532

Reference: Abutters List for Map 43.3 Parcel 168
Subject Property: 435 Circuit Avenue

Pursuant to the provisions of Massachusetts General Laws Chapter 40A, Section 11, as amended, this is to certify that the attached list of names and addresses constitutes all of the abutters to abutters within 300 feet of the property on the most recent tax list of the Town of Bourne. The purpose of the abutters list is for an application of a Special Permit from the Zoning Board of Appeals.

Abutting properties are Map 42.4 Parcels 38 & 38.1; Map 43.3 Parcels 168.1, 170, 171 & 190; Map 47.1 Parcels 1, 1.1, 2 & 124.

Your filing fee of \$25.00 has been received by the Assessor's Office.

Please be advised that this abutters list is only good for 30 days from the date on this letter. Expired abutters list can be recertified for an additional filing fee.

See enclosed Data Base Inquiry Forms for abutters mailing addresses.

Board of Assessors

List Enclosed

Ellen Doyle Sullivan
Donna Barakauskas
Michael Leitzel

Extract: ABUTTERS LIST
Database: LIVE
Filter: Key IN 8935,8936,9452,9453,9468,10147,10148,10149,10266
Sort:

Report #24: Owner Listing Report
Fiscal Year 2025

Bourne MA

| Key | Parcel ID | Owner | Location | LC/UCI | Bk-Pa(Cert) /Dt | Mailing Street | Mailing City | ST | Zip Cd/County |
|-------|------------|---|-----------------|-----------|------------------------|----------------------------|---------------|----|---------------|
| 8935 | 42.4-38-0 | CAMPBELL JOYCE M & DAVID C TR CAMPBELL FAMILY TRUST | 425 CIRCUIT AVE | N 1010 | 31120/170 3/6/2018 | 10 ALDEN ROAD | MILTON | MA | 02186 |
| 8936 | 42.4-38-1 | CAMPBELL JOYCE M & DAVID C TR CAMPBELL FAMILY TRUST | 0 CIRCUIT AVE | N 1320 | 31120/170 3/6/2018 | 10 ALDEN ROAD | MILTON | MA | 02186 |
| 9452 | 43.3-168-1 | STENBERG PAUL H & MADELINE K STENBERG | 435 CIRCUIT AVE | N 1320 | 7943/177 3/30/1992 | 12 WALNUT ST | NEEDHAM | MA | 02492 |
| 9453 | 43.3-170-0 | ALBRO CARL STARCK & DONNA WOOD ALBRO TR ALBRO FAMILY TRUST | 56 PEQUOT AVE | N 1010 | 28646/8 1/23/2015 | 57 ESSEX CIRCLE UNIT 13 | RAYNHAM | MA | 02767 |
| 9468 | 43.3-190-0 | HOBACA DAVID E & JANET D | 50 PEQUOT AVE | N 1010 | 31767/218 1/7/2019 | 12 PATRIOTS WAY | MANSFIELD | MA | 02048 |
| 10147 | 47.1-1-0 | CERULLE JEANNE & ROBERT C CERULLE JR TRS JEANNE CERULLE | 441 CIRCUIT AVE | Y 1010 | 176646 5/9/2005 | 68 FAIRBANKS AVE | WELLESLEY | MA | 02481-5255 |
| 10148 | 47.1-1-1 | CERULLE JEANNE & ROBERT C CERULLE JR TRS JEANNE CERULLE | 0 CIRCUIT AVE | Y 1320 | 176646 5/9/2005 | 68 FAIRBANKS AVE | WELLESLEY | MA | 02481-5255 |
| 10149 | 47.1-2-0 | WITHERELL PETER W TRS & NANCY L WITHERELL TRS | 445 CIRCUIT AVE | N 1010 | 25610/232 8/9/2011 | 345 ELM STREET EAST | RAYNHAM | MA | 02767 |
| 10266 | 47.1-124-0 | AVERY GERALDINE K TRUSTEE OF THE AVERY FAMILY REALTY TRUST | 0 CIRCUIT AVE | N 1320 | 20607/56 12/27/2005 | 11330 QUAIL CREEK RD APT 3 | OKLAHOMA CITY | OK | 73120 |

Total Records 9

435 Circuit Avenue
MAP 43.3, PARCEL 168
Existing Conditions

| Lot Size | 5,641 | Max Gross | | Lot Coverage | |
|---|-------|--------------------------|----------------|-----------------------|----------------|
| % used to determine GFA requirements | 25% | First Floor | 1,052 | Dwelling | 1,052 |
| Maximum GFA = | 1,410 | Second Floor | 944 | Garage | 0 |
| | | Garage* | 0 | Deck/Porch | 476 |
| % used to determine lot coverage requirements | 25% | Porch* | 454 | Shed & Accessory Bld. | 385 |
| Maximum Lot Coverage = | 1,410 | Basement | 0 | Storage container | 0 |
| | | Other (Shed & Acc. Bld.) | 385 | Gazebo | 0 |
| | | | | Swimming Pool | 0 |
| Building Height (also see definition) | 25.8 | Total: | 2,835 50.2% | Total: | 1,913 33.9% |

Good and sufficient cause; Failure to grant the departure would result in exceptional hardship to the applicant; or conflict with existing laws.

The departure must be the minimum necessary to afford relief and not exceed an increase greater than ten percent (10%) of the calculated area.

Example: Lot Size 10,000s.f. x 23% = 2300 s.f. (GFA allowed). Maximum relief allowed upon evidence of exceptional hardship, 2300 s.f. x 10% = 230 s.f.
Total GFA = 2530 s.f.

Town Planner or Designee

Date

This only a verification that the numbers provided on this worksheet are accurate based upon the certified plans provided by the applicant.

435 Circuit Avenue
MAP 43.3, PARCEL 168
Proposed Conditions

| Lot Size | 5,641 | Max Gross | | Lot Coverage | |
|---|----------------|---------------|----------------|-------------------|----------------|
| % used to determine GFA requirements | 25% | First Floor | 1,526 | Dwelling | 1,526 |
| Maximum GFA = (Pre-Existing Conditions) | 1,410 2,835 | Second Floor | 1,309 | Garage | 0 |
| | | Garage* | 0 | Deck/Porch | 387 |
| % used to determine lot coverage requirements | 25% | Porch* | <200 | Shed | 0 |
| Maximum Lot Coverage = (Pre-Existing Conditions) | 1,410 1,913 | Basement | 0 | Storage container | 0 |
| | | Other | 0 | Gazebo | 0 |
| | | | | Swimming Pool | 0 |
| Building Height (also see definition) | 30.0 | Total: | 2,835 50.2% | Total: | 1,913 33.9% |

Good and sufficient cause; Failure to grant the departure would result in exceptional hardship to the applicant; or conflict with existing laws.

The departure must be the minimum necessary to afford relief and not exceed an increase greater than ten percent (10%) of the calculated area.

Example: Lot Size 10,000s.f. x 23% = 2300 s.f. (GFA allowed). Maximum relief allowed upon evidence of exceptional hardship, 2300 s.f. x 10% = 230 s.f.
Total GFA = 2530 s.f.

Town Planner or Designee

Date

This only a verification that the numbers provided on this worksheet are accurate based upon the certified plans provided by the applicant.

PROJECT NARRATIVE

435 Circuit Avenue, Bourne, MA

On behalf of the Applicants, Paul & Madeline Stenberg, Trustees of the Seven Stens Trust, Bracken Engineering, Inc. submits this Supportive Finding/Special Permit Application for work on an existing non-conforming lot with an existing non-conforming single-family house and accessory structure. The proposal is to raze the existing single-family dwelling and accessory structure and rebuild a new single-family dwelling.

The lot is in the R-40 Zoning District which requires 40,000 square feet (sf) of area. The lot was created in 1873 and the existing structure was built approximately 1920. It has 75.52' of frontage on both Circuit Avenue to the southwest and Pequot Avenue to the northeast. The non-conforming dwelling resides on parcel 168 with 5,641 sf of area. The parcel meets the definition of a Non-conforming Lot per Bourne Zoning By-Law Section 2452.

The existing single-family dwelling and accessory structure are non-conforming regarding setbacks, gross floor area, and lot coverage. The existing accessory structure is located approximately 1.1' into the layout of Pequot Avenue. Zoning By-Law Section 2320 allows the permitting of the alteration based on a supportive finding/special permit that the alteration will not be substantially more detrimental to the neighborhood than the existing use.

The proposed single-family dwelling will not be more detrimental to the neighborhood, as the minimum required side yard setback for the district will be met. The proposed dwelling shall be located entirely within the lot bounds and either maintain or improve the front yard setbacks. The overall building height is in conformance with the non-conforming bylaw. The rebuilt gross floor area and lot coverage square-footages do not exceed the existing non-conforming square-footages. The proposed structure shall be built in compliance with FEMA Regulations for construction within a floodplain, increasing the neighborhood's coastal resilience and as well as the town's emergency response procedures and post disaster response times. Lastly the project has a net benefit on the environment reducing the number of bedrooms on the property which along with the implantation of an innovative alternative septic system will reduce nitrogen loading within Red Brook Harbor and the abutting coastal resource areas.

After recording return to:

Paul and Madeline Stenberg
32 Damon Road
Needham, MA 02494

TITLE NOT EXAMINED

QUITCLAIM DEED

We, Paul H. Stenberg and Madeline K. Stenberg, a married couple, of Bourne, MA
For consideration paid and in full consideration of **LESS THAN \$100.00**

Hereby grant to **Paul H. Stenberg, Jr. and Madeline K. Stenberg** as Trustees of the **Seven Stens Trust**, a written trust dated March 9, 2023 as evidenced by a Trustee's Certificate pursuant to M.G.L. c. 184, §35 filed herewith, of 435 Circuit Avenue, Bourne, Barnstable County, Massachusetts.

with **QUITCLAIM COVENANTS:**

The land and improvements in the Town of Bourne, Pocasset, Barnstable County, Massachusetts, and described as follows:

FIRST PARCEL: - A certain tract of land with the buildings thereon in said Bourne in that part of the Town known as Pocasset, and is most of Lot 340 on a Plan of Lots entitled "Pocasset Heights" duly recorded in Barnstable County Registry of Deeds, Plan Book 28, Page 1, and is bounded and described as follows: - Beginning on said Circuit Avenue at a corner of land of Jane A. Walker et al; thence northwesterly by said Avenue 55 feet to a stake for a bound; thence easterly by other land of the grantor 80 feet to a street; thence southeasterly by said street 55 feet to Lot 339; thence westerly by Lot 339, 75 feet to the point of beginning.

SECOND PARCEL: - Also the Shore Lot which goes with the above described lot, which lies directly westerly of Circuit Avenue, which is bounded and described as follows: - Beginning at the northwesterly corner of Lot 339 on said plan; thence continuing the southerly line of Lot 340 in a westerly direction in the same course to mean low water mark on Buzzards Bay; thence in a northwesterly direction by said mean low water mark 55 feet to a stake; thence easterly to lot 340; then southeasterly by Lot 340, 55 feet to the point of beginning. Excluding from this description so much of the land as is included in the lay-out of Circuit Avenue, which is a public way. Said shore lot is also conveyed with the following restrictions, that no building shall be erected or maintained on the same between the first day of June and the first day of October in

Property Address: 435 Circuit Avenue, Bourne, MA 02559

any year and no buildings or structures of any kind shall ever be erected on said shore lot other than temporary structures for the purpose of housing boats during the Winter, and the land between high and low water mark shall be forever open to use by other owners of lots in Patuisset as shown on the aforesaid plan, for the purpose of boating, fishing, bathing and clamming.

THIRD PARCEL: - The land in that part of the Town of Bourne, Barnstable County, Massachusetts, known as Pocasset Heights, and is the northernmost half of lot 339, as delineated on a Plan of Land known as "Pocasset Heights", which Plan is recorded with Barnstable County Deeds, in Plan Book 28, Page 1, and is bounded westerly by Circuit Avenue, 25 feet; Northerly by lot numbered 340, 75 feet; easterly by Pequot Avenue, 25 feet; and Southerly by the southerly half of Lot numbered 339.

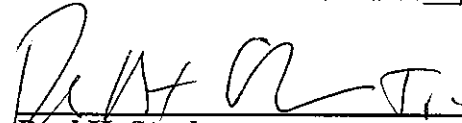
It is part of the consideration and a condition under which this conveyance is made that the grantees, their heirs, executors, administrators and assigns, owners or occupiers of the hereby granted premises, that they nor any of them shall or will not at any time hereafter erect, build, cause or permit to be erected or built or move or place upon the above granted premises or any part thereof, any building or part or portion of any building whatsoever unless and until they shall first secure the written permission of Ruth L. Walker or her heirs or assigns, except to rebuild, replace or repair the dwelling house at its present location on said premises in the event the same be damaged or destroyed by fire or any other casualty.

PROPERTY ADDRESS: 435 Circuit Avenue, Bourne, Massachusetts 02559

For title reference see deed recorded with said Registry in Book 7943 Page 177

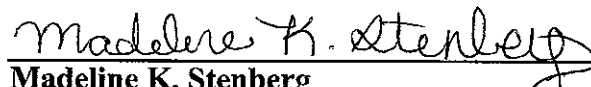
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Executed under seal this March 9, 2023.



Paul H. Stenberg

Executed under seal this March 9, 2023.




Madeline K. Stenberg

COMMONWEALTH OF MASSACHUSETTS

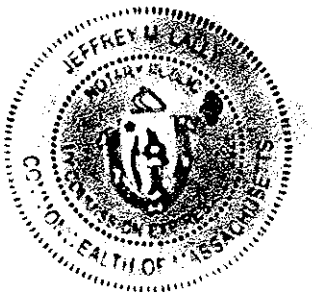
PLYMOUTH, ss.

On this March 9, 2023, before me, the undersigned notary public, personally appeared the above-named **Paul H. Stenberg**, and **Madeline K. Stenberg**, proved to me through satisfactory evidence of identification, which were Mass Driver's License, to be the person(s) who signed the preceding or attached document in my presence, and acknowledged to me that he/she/they signed it voluntarily for its stated purpose, by his/her/their free act and deed.



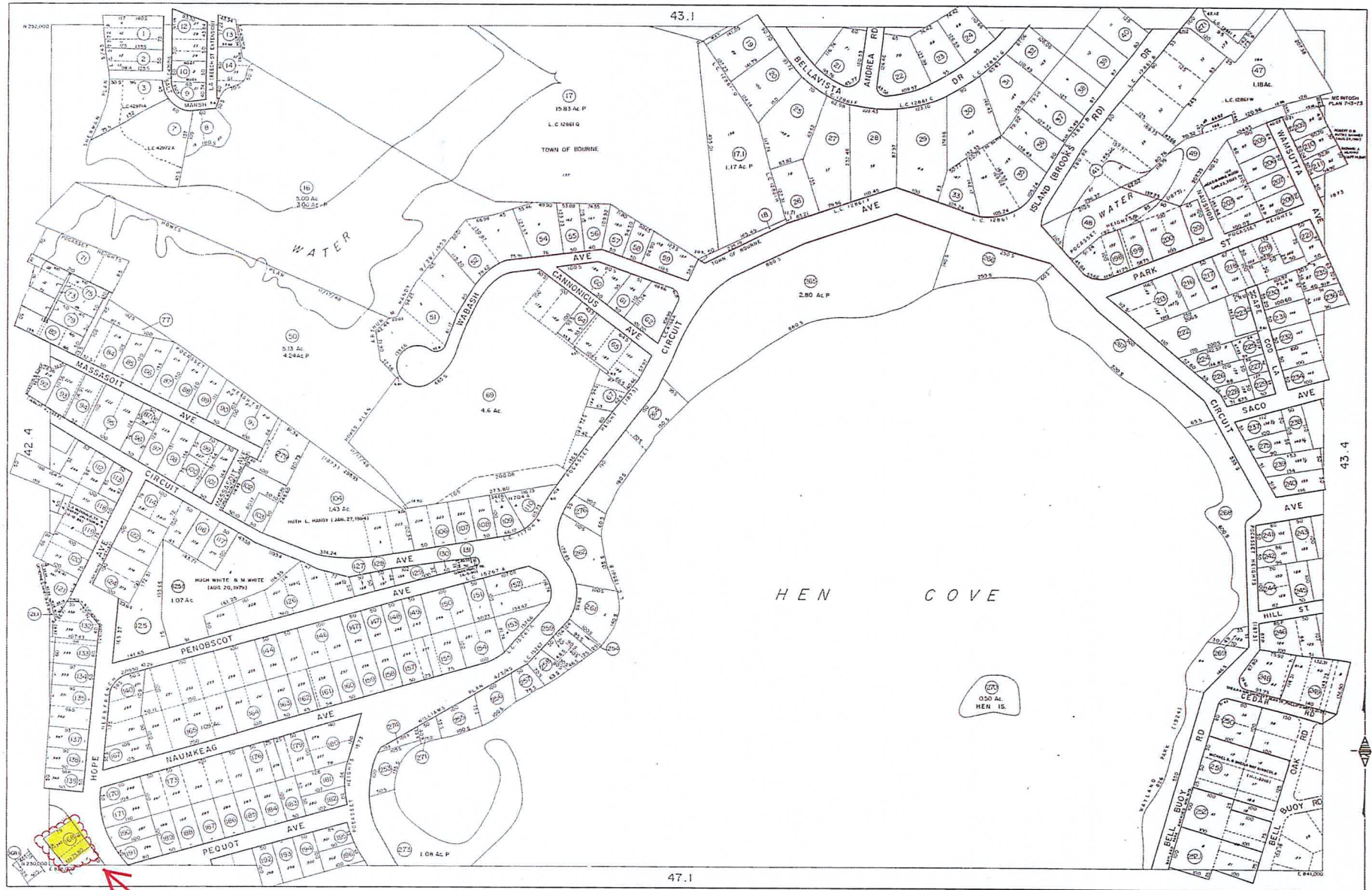
Jeffrey M. Lally, Notary Public

My Commission Expires: 8/28/2026



Jeffrey M. Lally
NOTARY PUBLIC
Commonwealth of
Massachusetts
My Commission Expires
8/28/2026

BARNSTABLE REGISTRY OF DEEDS
John F. Meade, Register



AERO SERVICE
 Prepared for the Town of Bourne
 for Tax Purposes Only
 NOT TO BE USED FOR CONVEYANCE

DATE OF REVISION 2017

DATE OF COMPLETION MAY 31, 1973 DATE OF PHOTOGRAPHY APRIL 18, 1972
 PROPERTY DATA FROM DEED RESEARCH, FIELD RECONNAISSANCE, AND RECORDED PLATS
 SHEET LAYOUT BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM

**TOWN OF BOURNE
 MASSACHUSETTS**

SCALE 1 INCH = 100 FEET

0 100 200 300 400 500 600 FEET

| LEGEND | |
|------------------------|----------------------|
| County line | Map parcel number |
| Town line | Original lot number |
| Water reservation line | Map scaled dimension |
| Water district line | Plot dimension |
| Easement line | Denotes same owner |
| Original lot line | |
| Property line | |

**PROPERTY MAP
 SHEET 43.3**



Directions to 435 Circuit Avenue from the Bourne Town Hall:

Take Perry Avenue to Main Street;

Turn right onto Main Street;

At the traffic circle, take the 3rd exit onto the MA-28 S/MA-25 W ramp to Falmouth;

Keep right at the fork, follow signs for MA-28S/Falmouth/The Islands;

Continue onto MA-28S (MacArthur Boulevard) to Barlows Landing Road;

Turn left onto Shore Road;

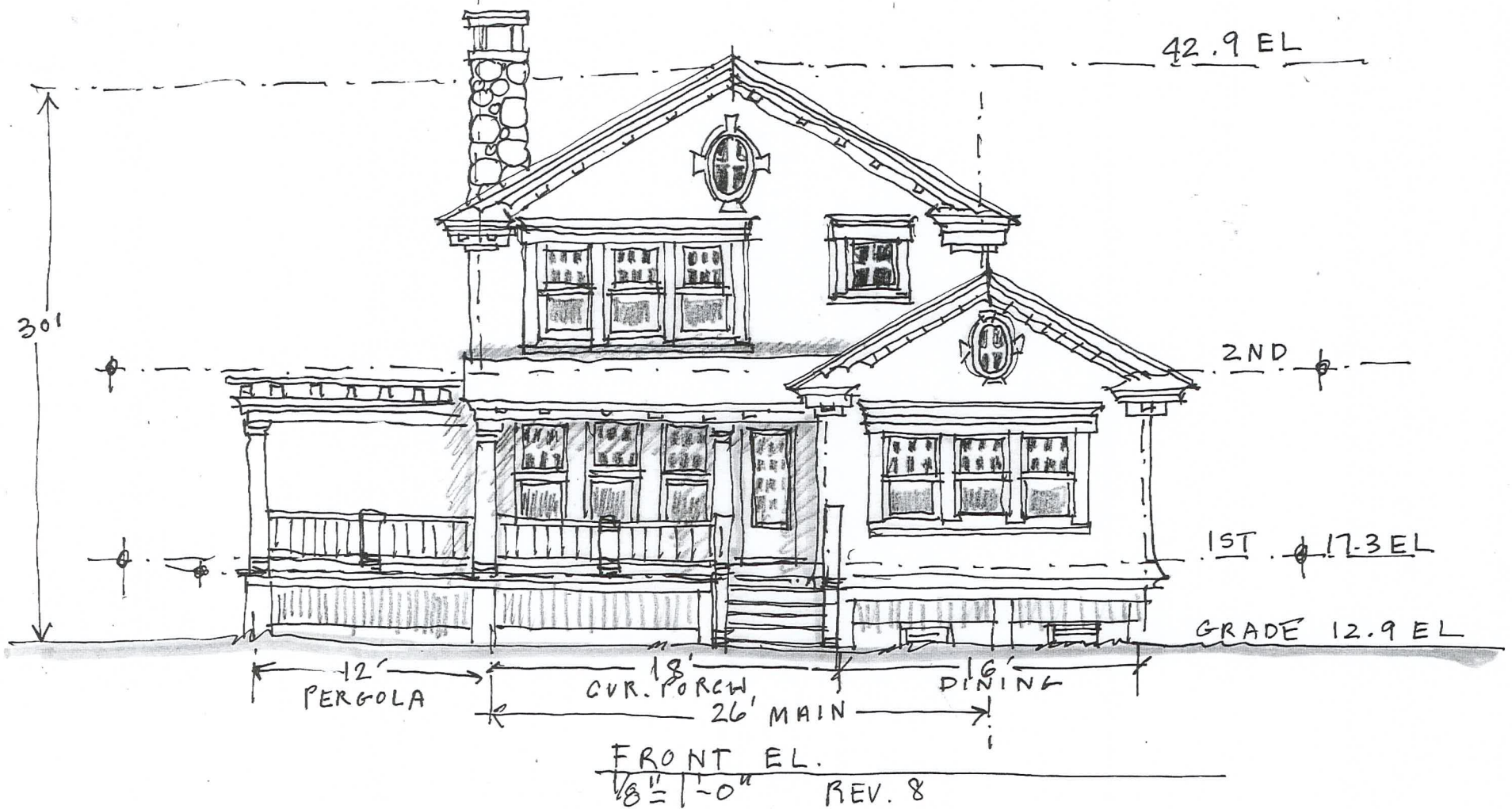
Turn right onto Island Drive;

Turn right on to Circuit Avenue;

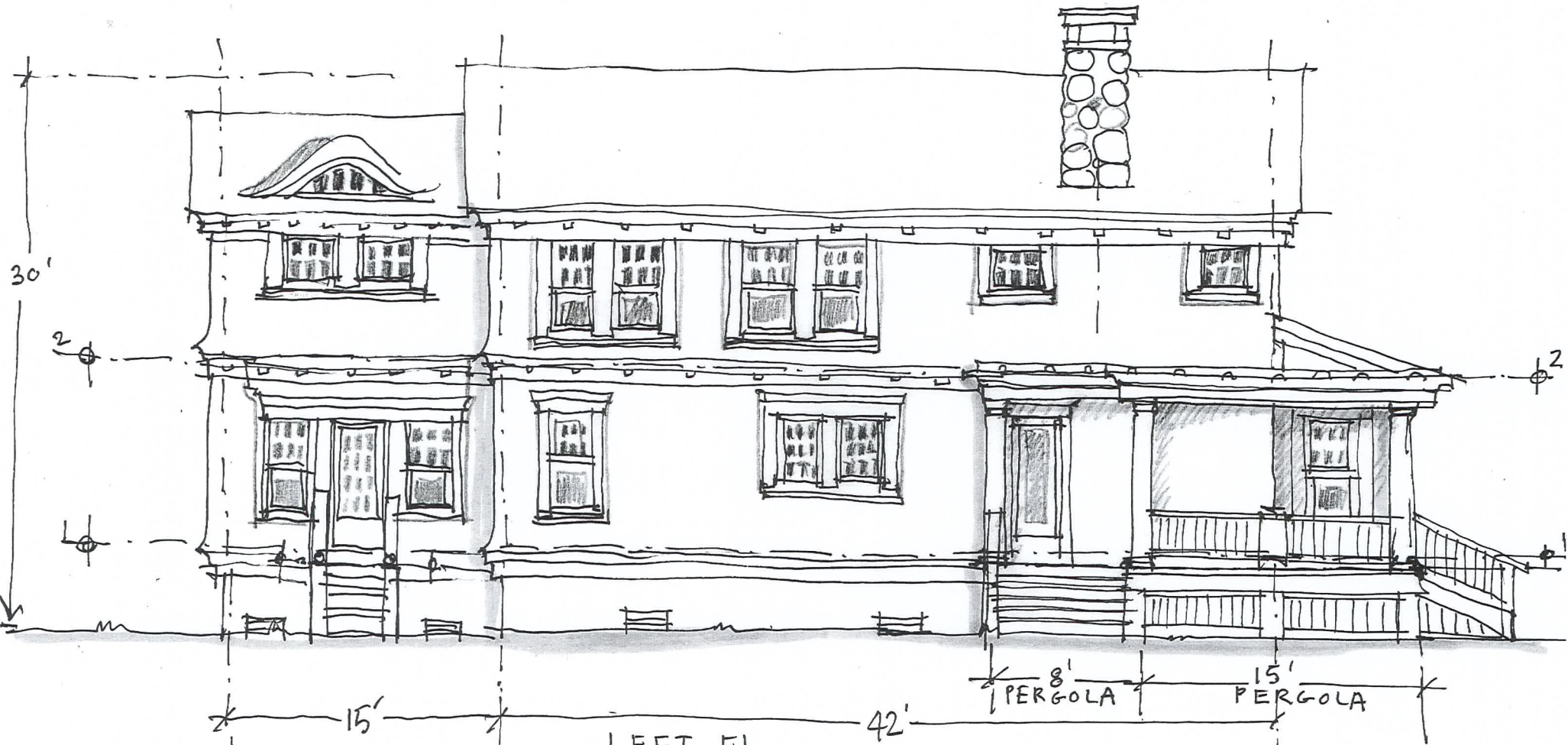
Turn right onto Pequot Avenue;

#435 Circuit Avenue is on the left just at the intersection of Pequot and Hope Avenue .

From Google Maps: 8.0 miles, approximately 17 minutes travel time.

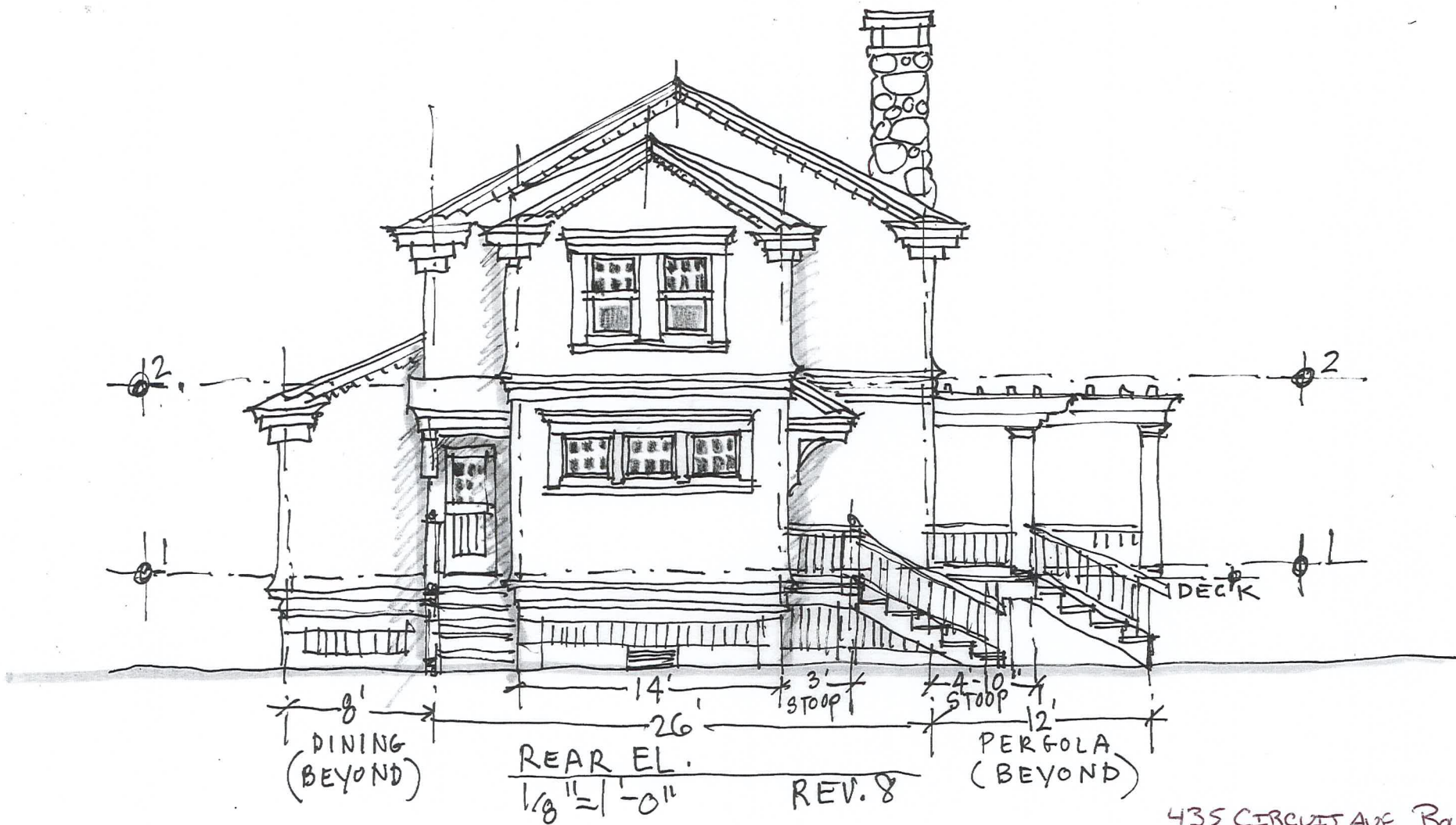


435 CIRCUIT AVE BARNHART MA
 HOME DESIGN BY CHERYL PERRAULT
 MARCH 21, 2024 1 OF 6

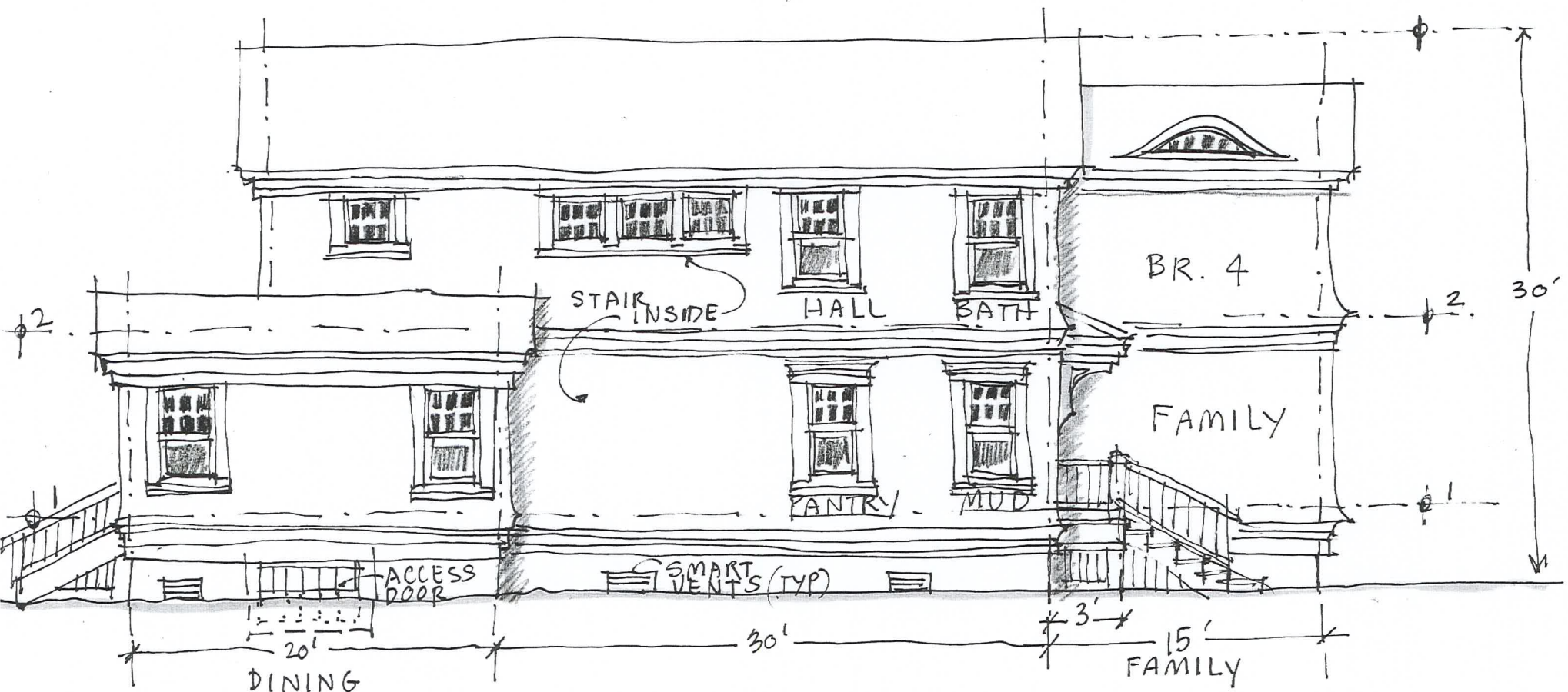


LEFT EL
 $\frac{1}{8}'' = 1'-0''$ REV. 8

435 CIRCUIT AVE BOURNE, MA
HOME DESIGN BY CHERYL PERRAULT
MARCH 21, 2024 2 OF 6

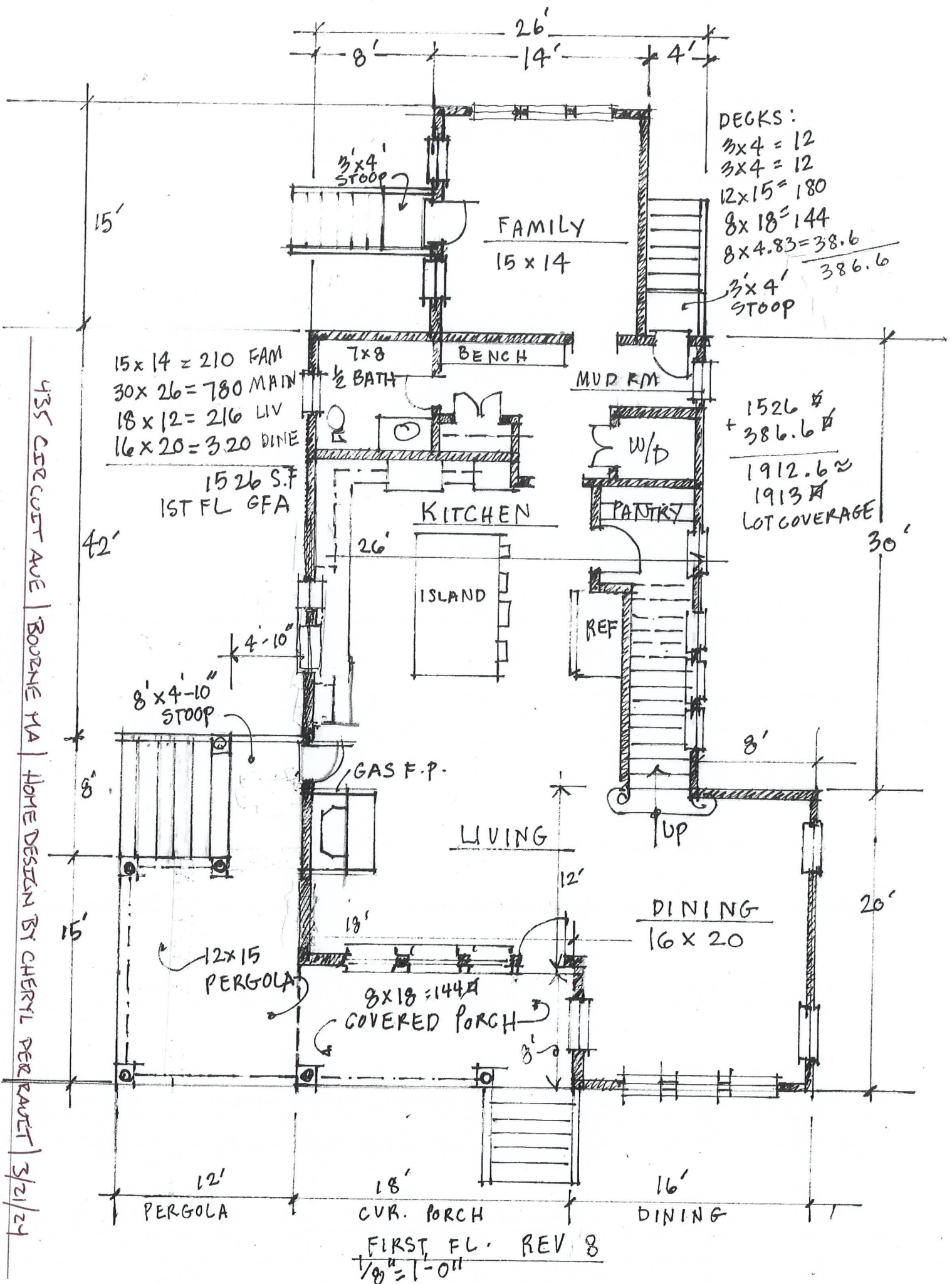


435 CIRCUIT AVE BOURNE, MA
 HOME DESIGN BY CHERYL PERZAUT
 MARCH 21, 2024 3 of 6



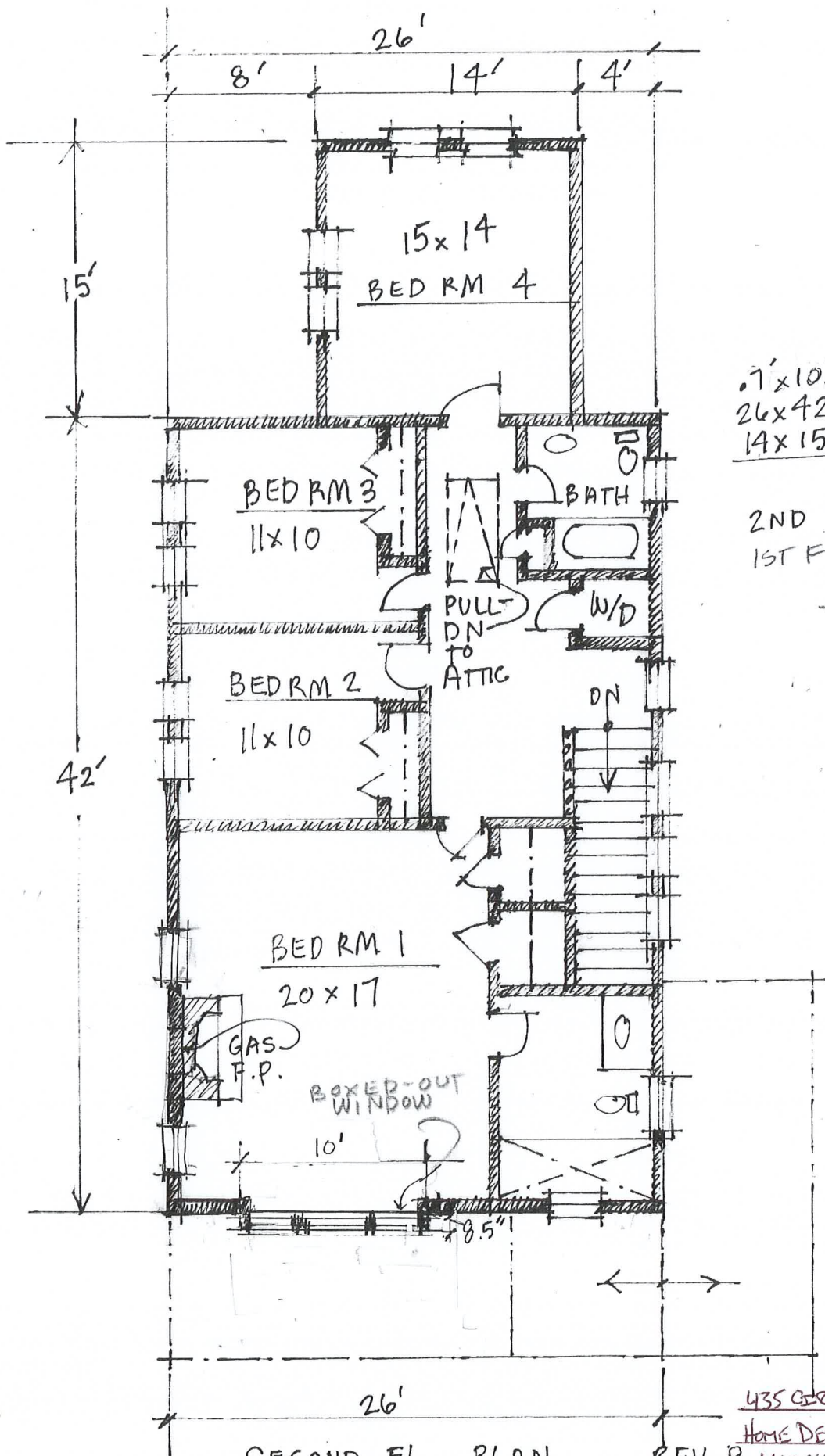
RIGHT EL. REV-8
1/8" = 1'-0"

435 CIRCUIT AVE BOURNE, MA
HOME DESIGN BY CHERYL PEREANT
MARCH 21, 2024 4 OF 6



FIRST FL. REV 8
 $1/8" = 1'-0"$

435 CIRCUIT AVE | BOURNE MA | HOME DESIGN BY CHERYL PERAZZOTTI | 3/2/24
 5076



$$7' \times 10' = 7 \text{ box-out}$$

$$26 \times 42 = 1092$$

$$14 \times 15 = 210$$

1309

2ND FL GFA

1ST FL GFA

1526

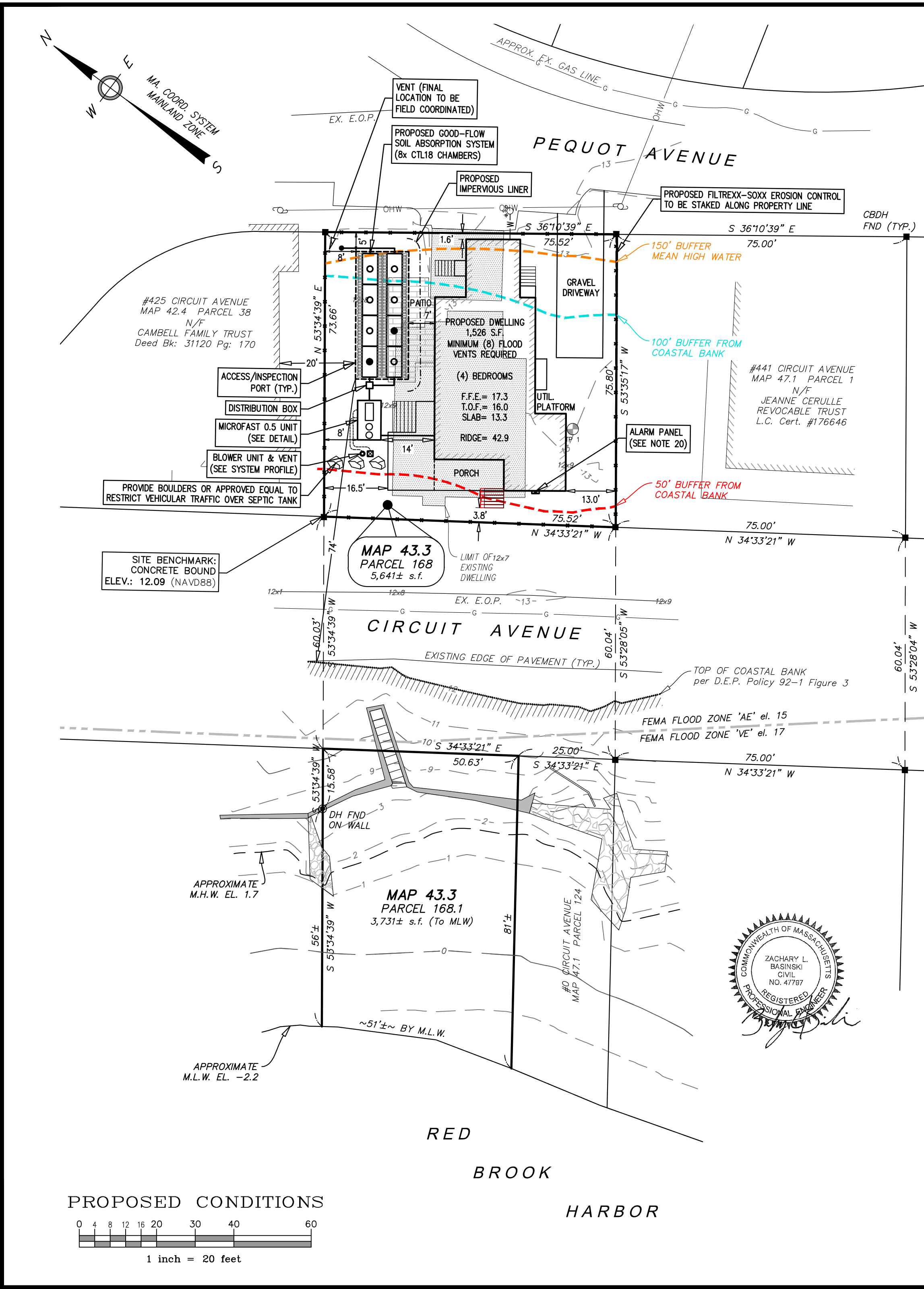
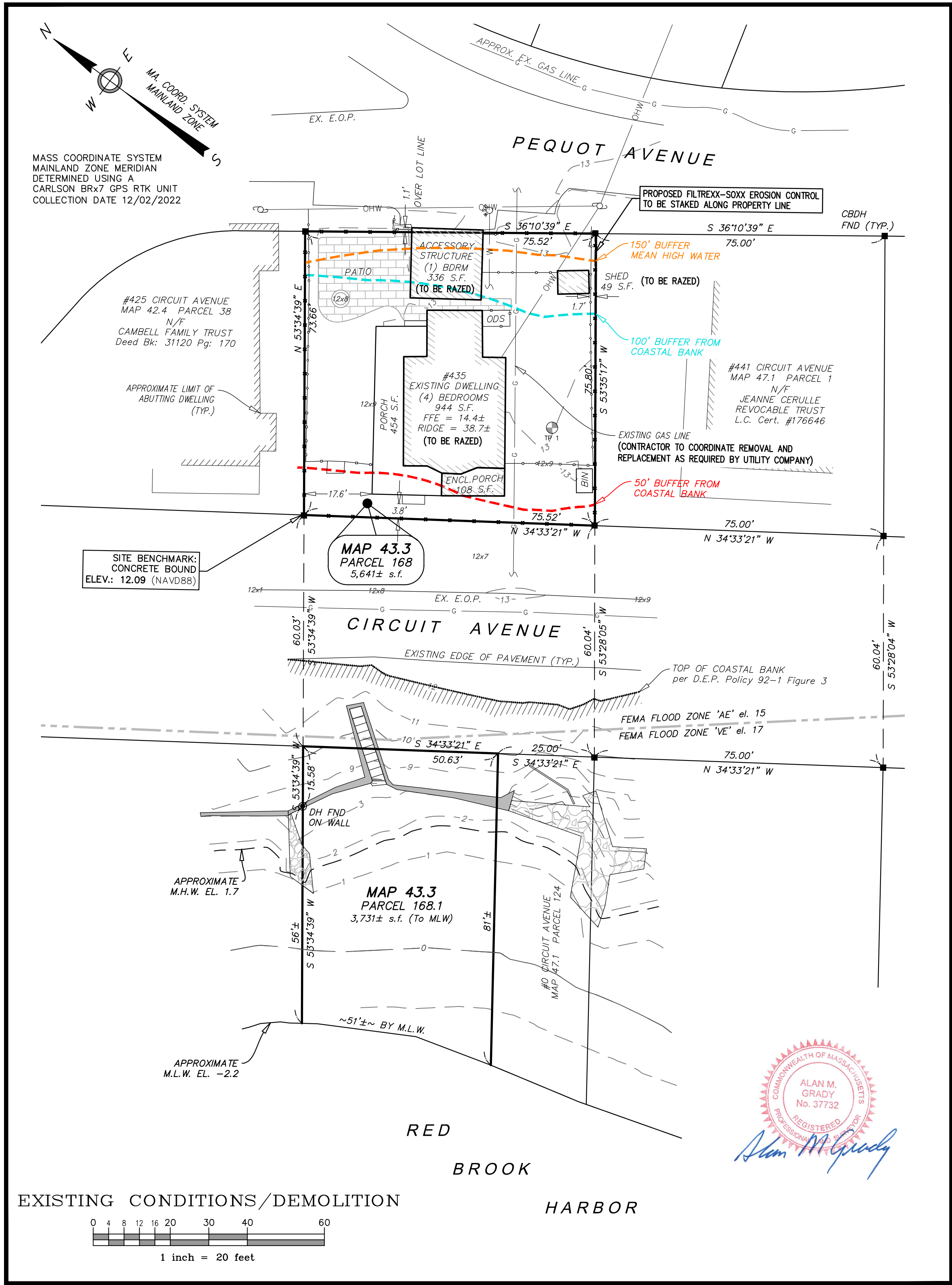
2828

=
2835
MAX.

SECOND FL. PLAN

1/8" = 1'-0"

435 CECILIA AVE / BARNES MA
HOME DESIGN BY CHEERYL PERCIVAL
REV. 8 MARCH 21, 2024 6 of 6



LOCAL UPGRADE APPROVAL WAIVERS & VARIANCE REQUESTS

- IN ACCORDANCE WITH MA 310 15.00 (TITLE 5) AND LOCAL BOURNE BOARD OF HEALTH REGULATIONS, THE FOLLOWING VARIANCES ARE REQUESTED:
- 15.405(1)(a) - A 5' LOCAL UPGRADE APPROVAL WAIVER FROM FULL COMPLIANCE IS REQUESTED FOR A 5' SETBACK FROM A PROPERTY LINE (PEQUOT AVENUE) TO A SOIL ABSORPTION SYSTEM.
 - 15.405(1)(a) - A 2' LOCAL UPGRADE APPROVAL WAIVER FROM FULL COMPLIANCE IS REQUESTED FOR A 8' SETBACK FROM A PROPERTY LINE (#425 CIRCUIT AVENUE) TO A SOIL ABSORPTION SYSTEM.
 - 15.405(1)(a) - A 2' LOCAL UPGRADE APPROVAL WAIVER FROM FULL COMPLIANCE IS REQUESTED FOR A 8' SETBACK FROM A PROPERTY LINE (#425 CIRCUIT AVENUE) TO SEPTIC TANK.
 - 15.405(1)(b) - A 3' LOCAL UPGRADE APPROVAL WAIVER FROM FULL COMPLIANCE IS REQUESTED FOR A 7' SETBACK FROM THE LOCUS FOUNDATION WALL (#435 CIRCUIT AVENUE) TO A SOIL ABSORPTION SYSTEM.
 - A 76' LOCAL VARIANCE IS REQUESTED FROM THE BOURNE BOARD OF HEALTH REGULATIONS FOR A 74' SETBACK FROM A PROPOSED SOIL ABSORPTION SYSTEM TO THE TOP OF A COASTAL BANK.

ZONING REQUIREMENTS

ZONE: R-40

PRE-EXISTING NON-CONFORMING

SEE TABLE 2456 FOR NON-CONFORMING
LOTS IN BOURNE ZONING BY LAWS.

| ZONE: R-40 | REQUIRED | EXISTING | PROPOSED |
|-------------------|-------------|-----------------|-----------------|
| LOT AREA: | 40,000 s.f. | 5,641± s.f. (a) | 5,641± s.f. (a) |
| FRONTAGE: | 125' | SEE PLAN | SEE PLAN |
| FRONT YARD: | 20' | SEE PLAN | SEE PLAN |
| SIDE YARD: | 12' | 1.7' (960) | 13.0' |
| REAR YARD: | 12' | SEE PLAN | SEE PLAN |
| LOT COVERAGE: | 25% | 33.9% | 33.9% |
| | (1,410 ±) | (1,925 ±) | (1,925 ±) |
| GROSS FLOOR AREA: | 25% | 50.2% | 50.2% |
| | (1,410 ±) | (2,809 ±) | (2,809 ±) |
| BUILDING HEIGHT: | 25' (b)(c) | 25.8' (c) | 30.0' (c) |

- Notes:
- (a) LOT AREA INCLUDES PARCEL 168 ONLY
 - (b) INCREASE ALLOWABLE HEIGHT BY 5' FOR ROOF ELEMENTS HAVING A SLOPE OF 4" OR MORE PER FOOT (SEE SECTION 2500 FOOTNOTE (a))
 - (c) BUILDING HEIGHT BASED ON AN EXISTING AVERAGE GRADE OF 12.9±

SOIL LOGS

| TP NO. | 1 |
|----------|------------------------|
| GRD. EL. | 13.0 |
| GW. EL. | NONE TO 2.7 |
| 0' | Ap SANDY LOAM 10YR 3/2 |
| 12' | Bw LOAMY SAND 10YR 5/6 |
| 48' | PERC |
| | C MEDIUM SAND 2.5Y 6/4 |
| 124" | NO MOTILES NO WATER |

DATE PERFORMED: DECEMBER 15, 2022

SOIL EVALUATOR: ROBERT E. DEWAR, E.I.T. SE#14230

WITNESSED BY: KAITY SHEA - B.O.H. INSPECTOR

PERC. RATE: <2 MINUTES/INCH

SOIL CLASS: CLASS I

MAX. GROUND WATER ELEV.: 2.7

METHOD OF DETERMINATION: NO MOTILES NO WATER

(SEE SOIL REPORT FOR MORE DETAILED DESCRIPTION)

EXCAVATION NOTE

THIS SYSTEM REQUIRES THE EXCAVATION OF ALL UNSUITABLE SOIL WITHIN 5' OF THE SOIL ABSORPTION SYSTEM. SOIL SHALL BE EXCAVATED TO THE EXISTING C MEDIUM SAND LAYER, APPROXIMATELY 48" ENGINEER TO CONFIRM SOIL DEPTH PRIOR TO INSTALLATION. THE EXCAVATION SHALL BE INSPECTED BY THE DESIGN ENGINEER PRIOR TO BACKFILLING. SOIL IS TO BE REPLACED WITH SAND CONFORMING TO 310 CMR SECTION 15.255. CONSTRUCTION IN FILL. CONTRACTOR IS RESPONSIBLE TO PROVIDE ENGINEER WITH SAND SAMPLE FOR SIEVE ANALYSIS.

DESIGN CALCULATIONS

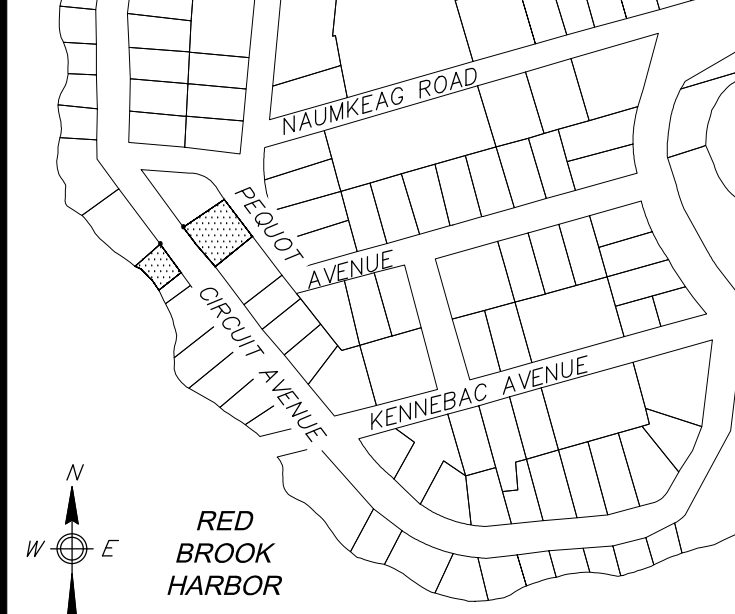
| | |
|-----------------------|-----------------|
| SOIL TEXTURAL CLASS: | CLASS I |
| PERC. RATE: | <2 MINUTES/INCH |
| NO. OF BEDROOMS: | 4 |
| DESIGN FLOW REQUIRED: | 440 GPD |
| SEPTIC TANK REQUIRED: | 1500 GALLONS |
| SEPTIC TANK PROVIDED: | 1500 GALLON |

LEACHING SYSTEM:
USE GOODFLOW CTL-18 CHAMBERS *GENERAL USE APPROVAL
(8) CTL-18 CONCRETE LEACHING CHAMBERS IN A (13.67') WIDE x (34') LONG BED

EFFECTIVE LEACHING: (BASED ON GENERAL USE APPROVAL)
(8 UNITS)(8 L.F./UNIT) = 64 L.F.

(10.57 S.F./L.F.)(64 L.F.) = 676 S.F. EFFECTIVE
LOADING RATE = 0.74 GPD/SF
FLOW PROVIDED: 500 GPD > 440 GPD REQUIRED

Locus Map Scale: 1" = 300'



Notes

- BENCHMARK: ELEVATION = 12.09 (NAVD88) CONCRETE BOUND
- ALL CONSTRUCTION METHODS AND MATERIALS TO CONFORM TO TITLE 5 AND THE TOWN OF BOURNE BOARD OF HEALTH REGULATIONS.
- ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC TAPE OR COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
- NO FIELD MODIFICATION TO THE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER AND BOARD OF HEALTH.
- ALL JOINTS AND COVERS TO BE WATERTIGHT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES.
- A CERTIFICATE OF COMPLIANCE MUST BE OBTAINED PRIOR TO BACKFILLING SYSTEM.
- OWNER: PAUL H. STENBERG, Jr. Trustee
MADELINE K. STENBERG, Trustee
THE SEVEN STENS TRUST
435 CIRCUIT AVENUE
BOURNE, MA 02559
- DEED REFERENCE: Deed Bk: 35689 Pg: 73
- PLAN REFERENCE: Plan Bk: 28 Pg: 1
Plan Bk: 40 Pg: 13
L.C. Plan #42858-A
- THE DESIGN IS INTENDED TO MEET TITLE 5 AND OTHER APPLICABLE REQUIREMENTS. THIS PLAN DOES NOT GUARANTEE THAT THE SYSTEM WILL BE INSTALLED AS DESIGNED, NOR DOES THIS PLAN GUARANTEE THE OPERATION OF THE SYSTEM.
- THIS SYSTEM IS NOT DESIGNED NOR INTENDED FOR USE WITH A GARBAGE GRINDER.
- THE SYSTEM OWNER SHALL BE RESPONSIBLE TO PUMP THE SEPTIC TANK AT LEAST ONCE EVERY THREE YEARS.
- LOCUS DOES NOT FALL WITHIN A ZONE II WELLHEAD PROTECTION AREA OR BOURNE WATER RESOURCE DISTRICT.
- LOCUS DOES NOT FALL WITHIN AN NHESP ESTIMATED HABITAT OF RARE WILDLIFE AND PRIORITY HABITAT OF RARE SPECIES.
- LOCUS DOES FALL WITHIN A SPECIAL FLOOD HAZARD ZONE "AE" (EL. 15) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25001C-0492-J, dated 7/16/2014.
- CONTRACTOR TO REFER TO ALL MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS FOR INSTALLATION OF THE MICROFAST UNIT AND GOOD-FLOW SOIL ABSORPTION SYSTEM.
- RECORD PROPERTY OWNER IS TO FILE A NOTICE OF DEED RESTRICTION AT THE BARNSTABLE COUNTY REGISTRY OF DEEDS PRIOR TO THE INSTALLATION OF THE SYSTEM, INDICATING THE USE OF AN INNOVATIVE/ALTERNATIVE SEPTIC SYSTEM ON THE PROPERTY.
- HOMEOWNER IS TO ESTABLISH AN OPERATION & MAINTENANCE PLAN WITH A COMPANY CERTIFIED SYSTEM OPERATOR FOR THE MICROFAST UNIT. ALL SYSTEM TESTING, MONITORING & REPORTING IS TO BE CONDUCTED IN ACCORDANCE TO THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) REMEDIAL USE PERMITS.
- CONTRACTOR TO COORDINATE PLACEMENT OF ALL ALARM/CONTROL PANELS WITH THE HOMEOWNER & SYSTEM MANUFACTURERS PRIOR TO INSTALLATION. PANELS SHALL BE ELEVATED AT OR ABOVE DESIGN FLOOD ELEVATION.
- CONTRACTOR TO COORDINATE FINAL LOCATION OF MicroFAST BLOWER UNIT AND VENT WITH OWNER. VENTS SHALL BE ELEVATED ABOVE DESIGN FLOOD ELEVATION.
- SOIL CONDITIONS ENCOUNTERED DURING THE INSTALLATION OF THE PROPOSED SEPTIC SYSTEM MAY VARY FROM PREVIOUSLY OBSERVED CONDITIONS AT TEST PIT LOCATION. DESIGN ENGINEER SHALL BE CONTACTED IF DISCREPANCIES ARE FOUND.

Prepared By:

BRACKEN
ENGINEERING, INC.

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PROPOSED SITE PLAN
IN BOURNE, MASSACHUSETTS

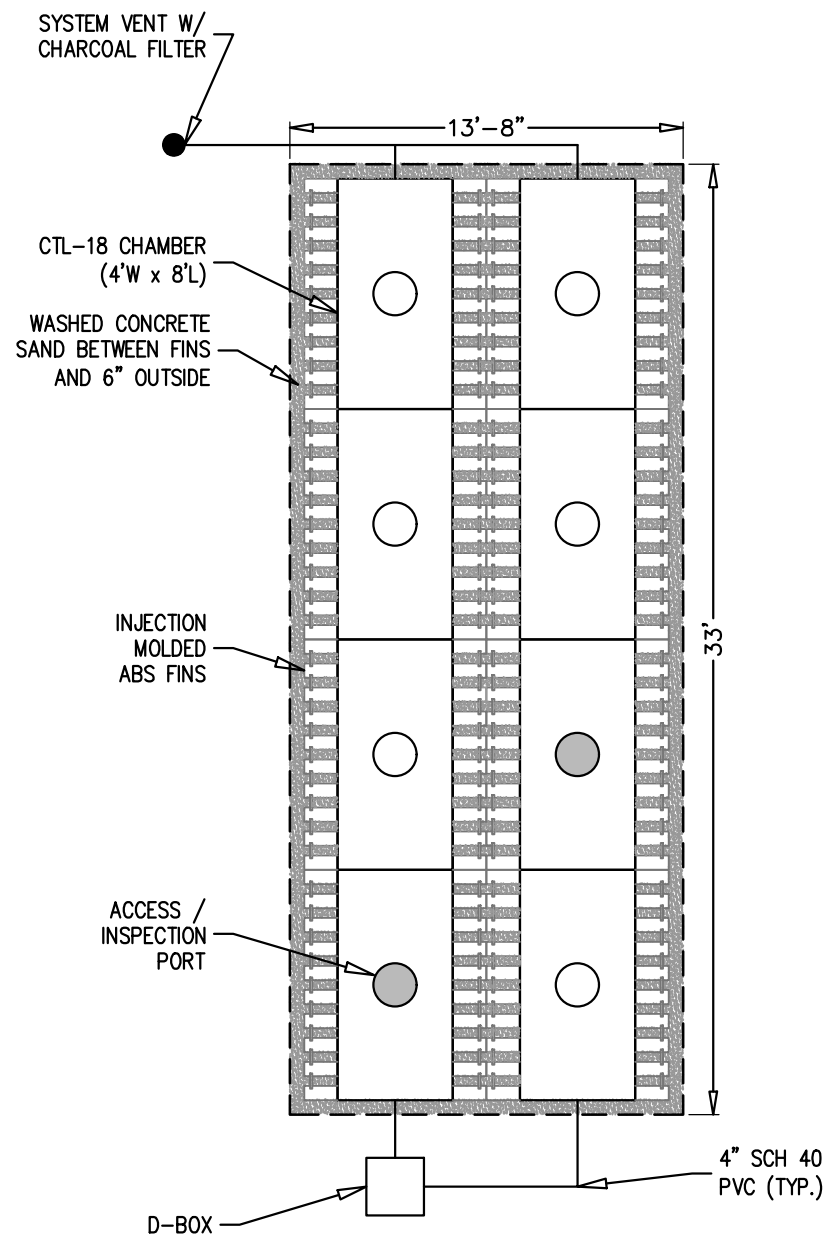
Prepared For:

THE SEVEN STENS TRUST
#435 CIRCUIT AVENUE
MAP 43.3 PARCEL 168

| No. | Date | Revision | Description | By |
|-----|----------------|----------|-------------|---------|
| 1 | APRIL 19, 2024 | | | JPH/BEI |
| 2 | | | | ZLB/AMG |

Drawn: JPH/BEI
Checked: ZLB/AMG
Sheet: 1 of 2

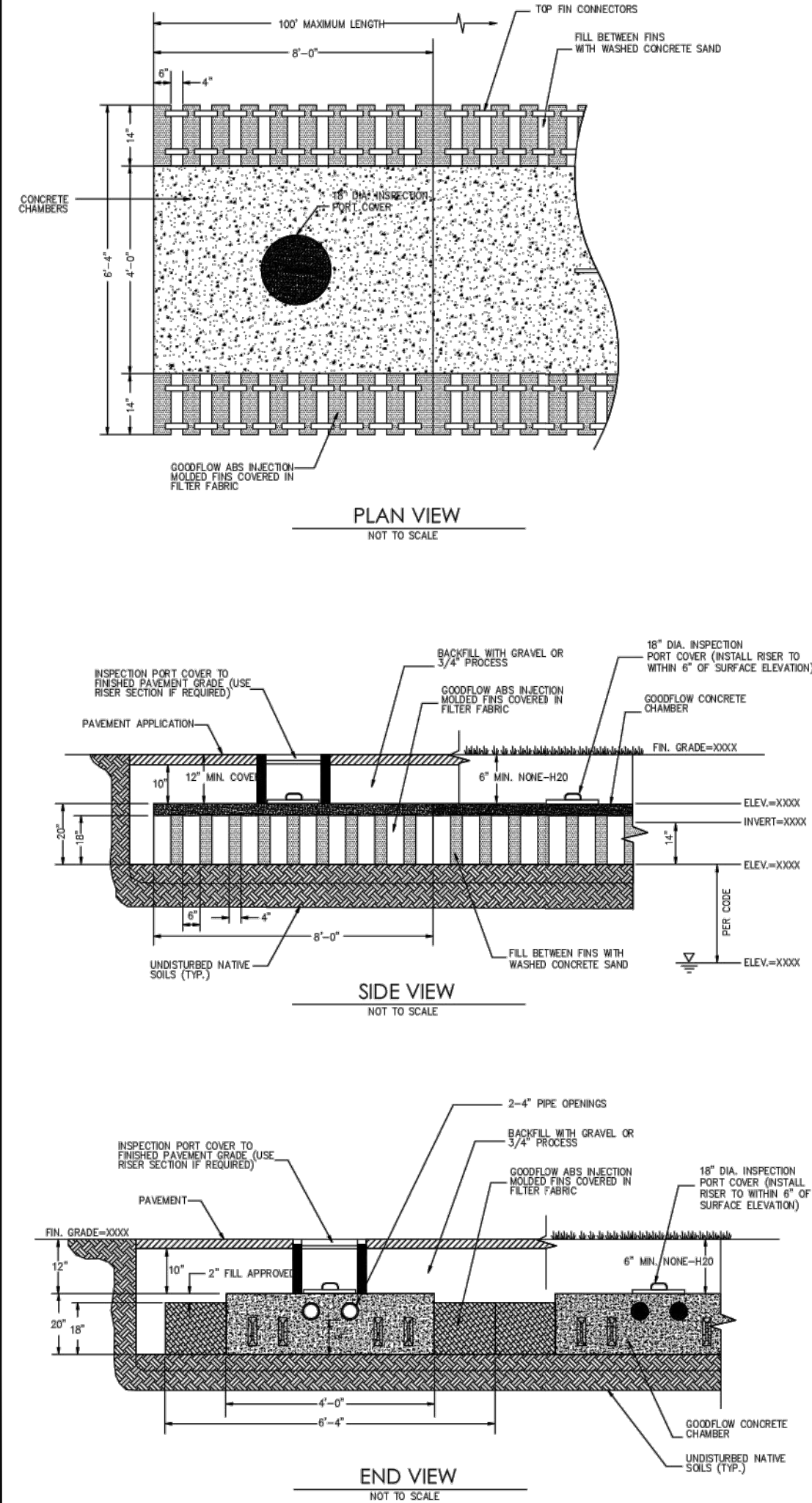
SYSTEM DETAIL



GOODFLOW INSTALLATION NOTES

1. FINS COME PREPARED WITH FILTER FABRIC ON ALL SIDES EXCEPT BOTTOM - THIS IS SEPARATE FROM THE FILTER FABRIC ON TOP OF THE SYSTEM PROVIDED BY THE INSTALLER.
2. MINIMUM OF 2" TITLE 5 SAND FROM THE TOP OF THE FINS TO THE TOP OF THE CHAMBER - CREATING A FLUSH SURFACE.
3. FILTER FABRIC IS PLACED ACROSS THE CONCRETE CHAMBER AND ON TOP OF THE 2" OF TITLE 5 SAND ATOP THE FINS. THE NON-WOVEN SYNTHETIC FILTER FABRIC SHALL HAVE ADEQUATE TENSILE STRENGTH TO PREVENT RIPPING DURING INSTALLATION AND BACKFILLING, ADEQUATE AIR PERMEABILITY TO ALLOW FREE PASSAGE OF GASES, AND ADEQUATE PARTICLE RETENTION TO PREVENT DOWNWARD MIGRATION OF SOIL PARTICLES.
4. MINIMUM OF 10" / MAXIMUM 4' BACKFILL WITH COMPACTED GRAVEL OR 3" PROCESS MATERIAL WITH 2" OF FINISH SURFACE (PAVED) OR 4" OF LOAM & SEED.
5. FOR ORDERING, CONTACT GOODFLOW SOLUTIONS AT 203-869-2969.

GOODFLOW CTL-18 DETAIL

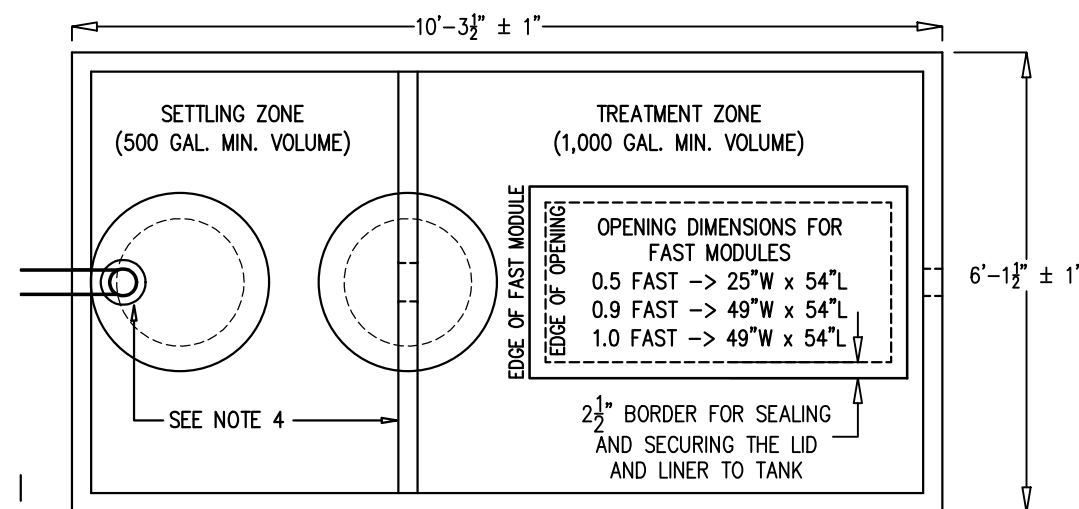


MicroFAST 0.5 FAST UNIT

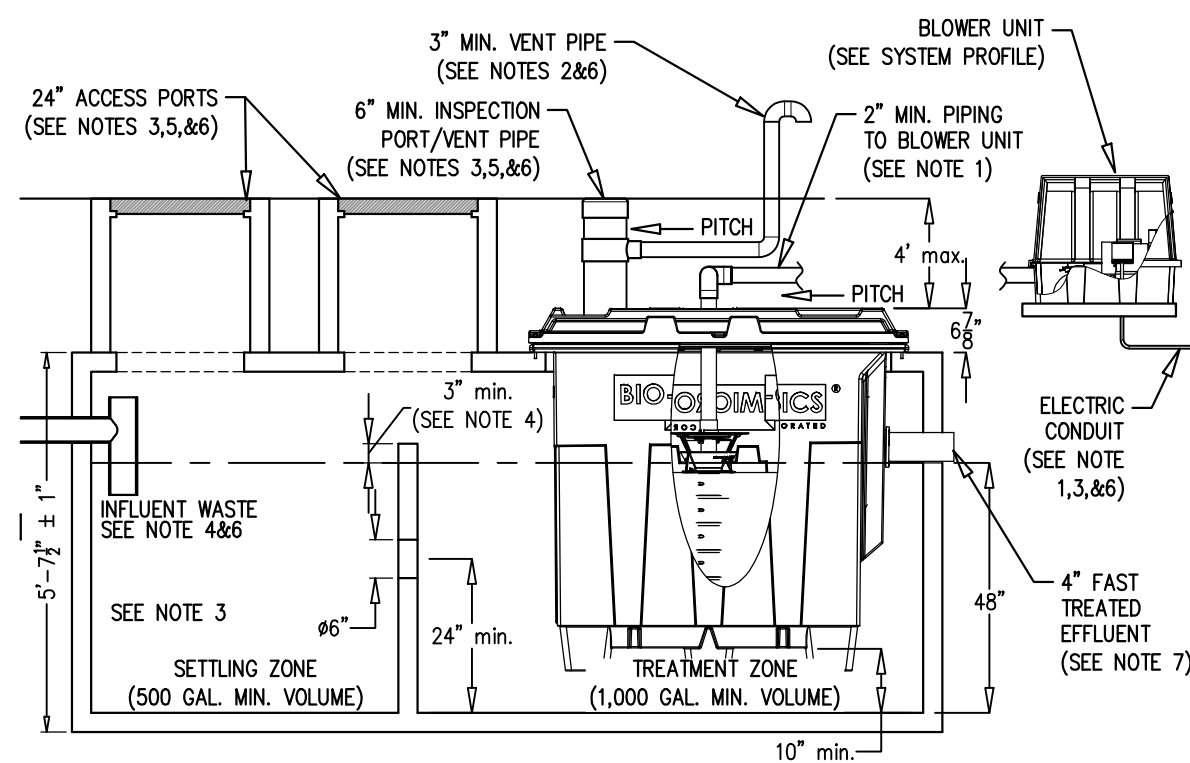


MicroFAST Notes:

1. Blower piping to FAST® may not exceed 100FT total length and use a maximum of 4 elbows. For distances greater than 100FT - consult factory. Blower must be located above flood/standing water levels on a concrete base 24" X 18" X 2" minimum or underground as shown in system profile. Blower and vent piping to pitch back toward tank.
2. Vent to be located above finish grade or higher to avoid infiltration. Cap with vent grate w/at least 7.1 sq. in. open surface area. Secure with stainless steel screws or run vent to desired location and cover opening with vent grate w/at least 7.1sq. in. of open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
3. All apertures to FAST® (e.g. tank pump outs, etc.) must conform to all country, state, province, and local plumbing and electrical codes. The blower control system is provided by Bio-Microbics, Inc.
4. Either the influent pipe tee shall be fitted with a pipe cap or the baffle separating the two zones shall be extended to the top of the tank. If choosing to use the pipe cap, then the baffle shall be at least 3" higher than the water level as shown on the drawing.
5. All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access.
6. Tank, anchors, piping, conduit, blower housing pad and vents are provided by others.
7. All piping and ancillary equipment installed after FAST® must not impede or restrict free flow of effluent.
8. No more than 3 FT of fill may be placed over unit lid. (see system profile for tank depth).

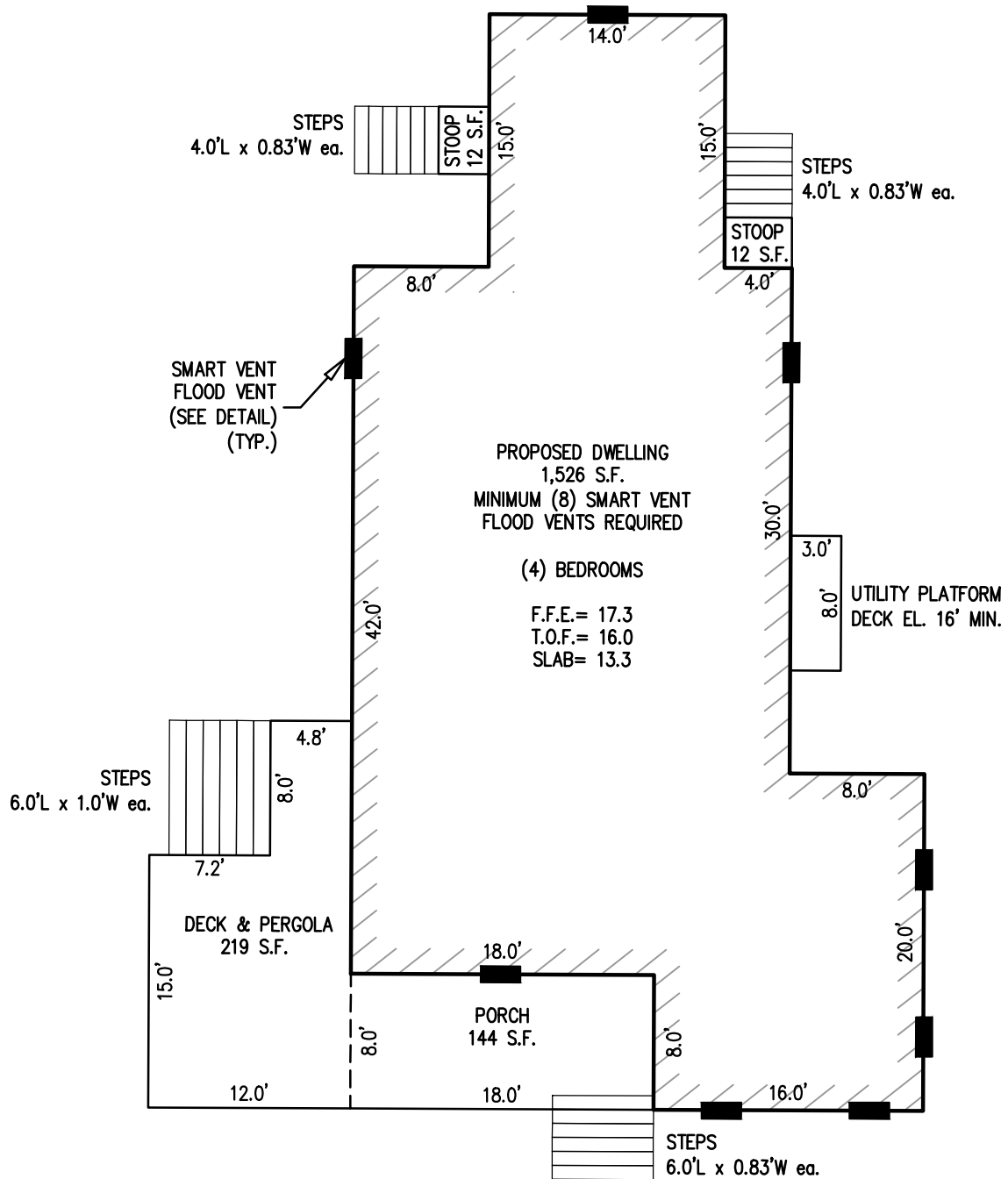


NOTE: ALL TANK PENETRATIONS & JOINTS MUST BE WATERTIGHT

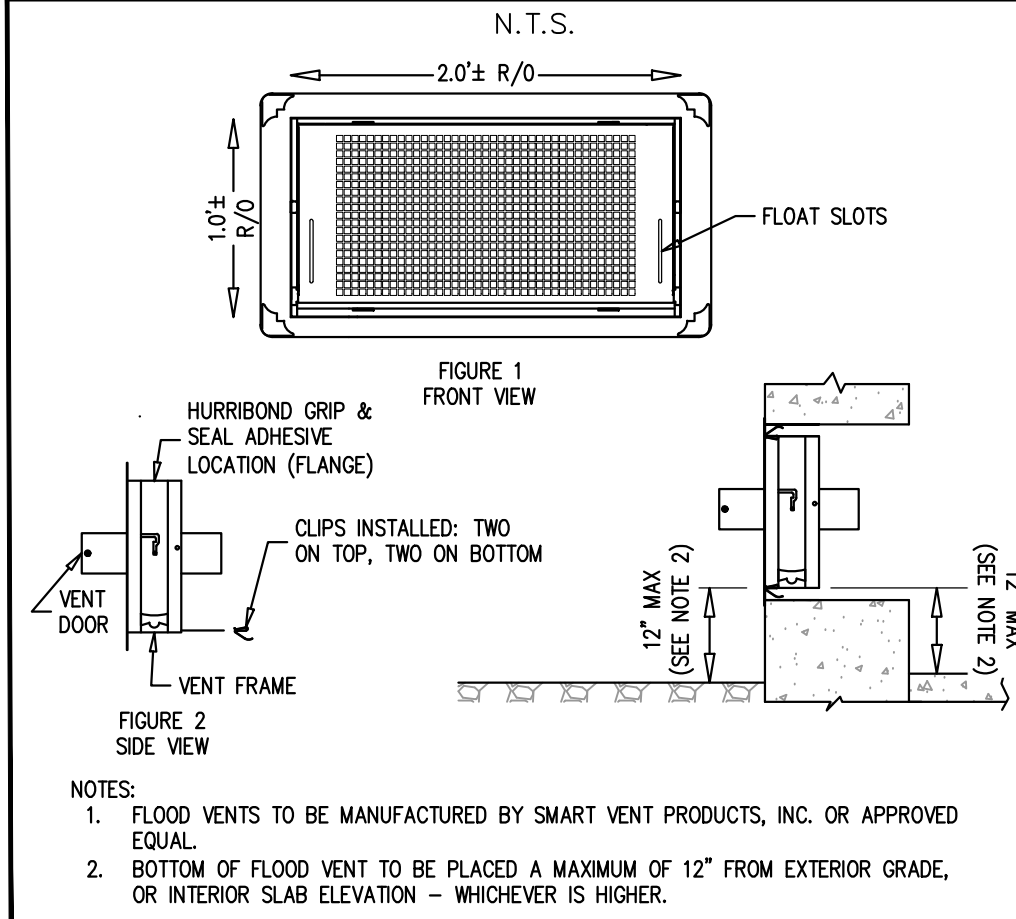


PROPOSED HOUSE DETAIL

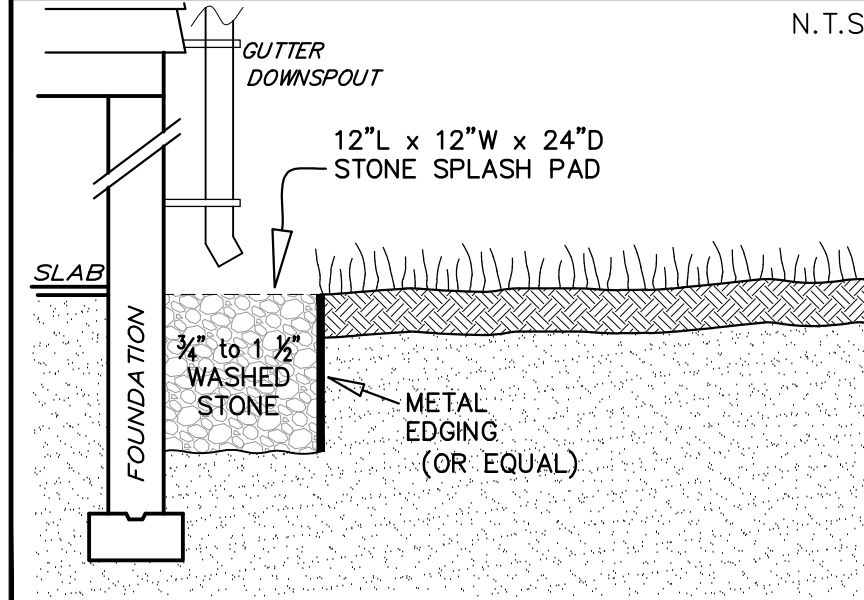
SCALE: 1" = 10'



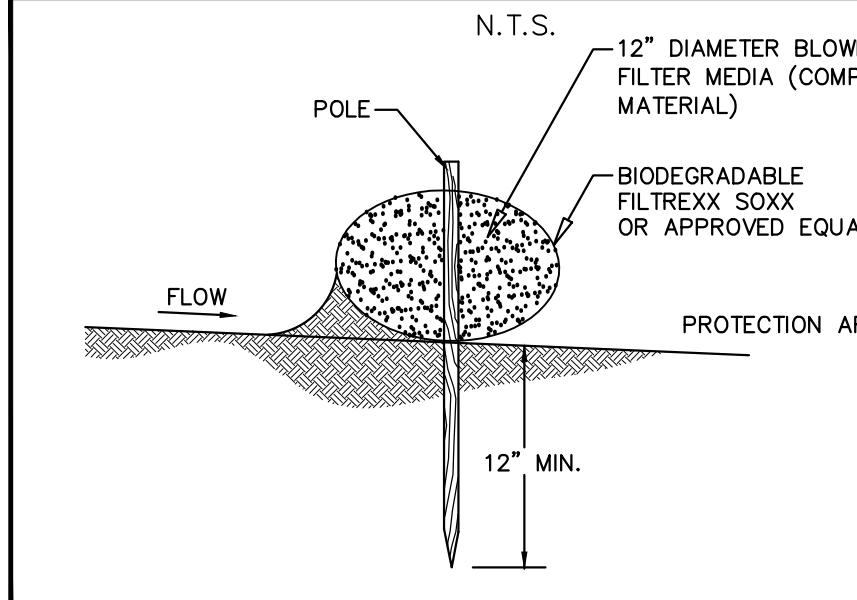
SMARTVENT DUAL FUNCTION FLOOD VENT DETAIL



TYPICAL DOWNSPOUT DISCHARGE



FILTREXX SOXX BARRIER DETAIL



Prepared By:

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