

**LOCATION MAP**  
SCALE: 1" = 1000'

**GENERAL NOTES:**

- THIS PLAN IS FOR 100% REPLACEMENT SEPTIC SYSTEM FOR THE EXISTING RESIDENCE AND THE POSSIBILITY OF FUTURE SUBDIVISION FOR THE PRIMARY AND RESERVE SEPTIC FOR THE SUBDIVIDED LOT. THIS PLAN IS NOT TO BE USED AS A SITE OR CONSTRUCTION PLAN.
- TOPOGRAPHIC INFORMATION AND EXISTING SEPTIC INFORMATION WERE OBTAINED FROM A SURVEY TITLED "PRELIMINARY" SUBDIVISION PREPARED FOR DARIO & MARIA PALLADINO, CONNECTICUT DATED JANUARY 14, 2002 WITH LATEST REVISION DATE OF 3-17-22 PREPARED BY EDWARD J. FRATTAROLI, INC.
- A-2 SURVEY INFORMATION WAS OBTAINED FROM A SURVEY TITLED "PRELIMINARY" SUBDIVISION PREPARED FOR DARIO & MARIA PALLADINO, 18 OPPER ROAD, STAMFORD, CONNECTICUT, DATED JANUARY 14, 2002 WITH LATEST REVISION DATE OF 3-17-22 PREPARED BY EDWARD J. FRATTAROLI, INC.
- PROPERTY DEPICTED HEREON IS LOCATED IN AN R-20 ZONE. LOT AREA EQUALS 0.864 +/- ACRES PER THE STAMFORD TAX ASSESSOR'S OFFICE.
- THE CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE, LOCATION, DEPTH AND INVERTS OF ANY AND ALL EXISTING UTILITIES PRIOR TO COMMENCING OPERATIONS. THE CONTRACTOR SHALL ALSO BE REQUIRED TO CONTACT THE TOLL FREE "CALL-BEFORE-YOU-DIG" PHONE NUMBER AT 1-800-922-4455.
- ON-SITE SEPTIC TESTS WERE CONDUCTED UNDER THE DIRECT SUPERVISION OF JOELVITO N. VILLALUZ, P.E. LEED AP, ON MAY 4, 2022 AND WITNESSED BY JOSH POLUR, RS AND PAMELA SOLIS OF THE STAMFORD DEPARTMENT OF HEALTH.
- ALL WORK PERFORMED BY THE OWNER/DEVELOPER MUST INCLUDE IMPLEMENTATION OF AN APPROVED SOIL EROSION AND SEDIMENTATION PLAN IN ACCORDANCE WITH PUBLIC ACT NO. 83-398 (PASSED BY THE CONNECTICUT GENERAL ASSEMBLY). THE CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH THE CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL PUBLISHED BY THE CONNECTICUT COUNCIL OF SOIL AND WATER CONSERVATION, JANUARY 1985.
- PROPERTY IS SERVED BY CITY WATER.
- ALL EXISTING OR PROPOSED ROOF LEADERS, DRAINAGE OR CURTAIN DRAIN DISCHARGE LINES SHALL HAVE A MINIMUM OF 25 FEET SEPARATION DISTANCE IF LOCATED UPGRADE OF THE SEPTIC SYSTEM DEPICTED HEREON (OR 50 FEET MINIMUM IF LOCATED DOWNGRADE) AND FLOW SHALL BE DIRECTED AWAY FROM THE SEPTIC SYSTEM.
- THERE SHALL BE NO PART OF A SEPTIC SYSTEM LOCATED WITHIN 75 FEET OF ANY WELL ON SUBJECT PARCEL OR ADJACENT PROPERTIES.
- APPROXIMATE LOT LINES AND PROPERTY LINES ARE DEPICTED HEREON. EXACT SETBACK LINES AND PROPERTY LINES ARE TO BE DETERMINED BY A LICENSED LAND SURVEYOR PRIOR TO ACTUAL CONSTRUCTION.
- THIS SYSTEM IS NOT DESIGNED TO ACCEPT THE DISCHARGE FROM A KITCHEN GARBAGE GRINDER, BACKWASH FROM WATER TREATMENT DEVICES OR DISCHARGE FROM LARGE whirlpool type baths. ADDITIONAL ANALYSIS IS REQUIRED FOR THESE.
- SUGGESTED TANK LOCATION ARE DEPICTED HEREON. EXACT TANK LOCATION TO BE DETERMINED BY THE CERTIFYING ENGINEER DURING CONSTRUCTION BASED ON FIELD CONDITIONS.

**LEGEND AND COLOR CODE**

- 15- EXISTING CONTOUR LINES
- 1- DEEP TEST LOCATION IDENT. LETTER OR NO.
- PERC. TEST LOCATION IDENT. NUMBER OR LETTER
- PROPOSED RESERVE LEACHING UNIT
- PROPOSED SEPTIC TANK
- D.B.C. PROPOSED DISTRIBUTION BOX

**CIVIL ENGINEER:**

**JOELVITO N. VILLALUZ, P.E. LEED AP**  
CT PE LIC. NO. 23386  
1 GILBERT STREET  
SHELTON, CONNECTICUT 06484  
TELEFAX: 203.922.8240

SCALE: 1" = 30'

PENDING MUNICIPAL APPROVAL

DRAWING REVISIONS

NO.	DESCRIPTION	DATE

**SEPTIC PRIMARY AND 100% RESERVE FOR 5 BEDROOMS AT 18 OPPER ROAD (LOT 4-B), STAMFORD, CT 06903**

FOR DARIO AND MARIA PALLADINO  
18 OPPER ROAD  
STAMFORD, CT 06903

**SEPTIC PRIMARY & RESERVE PLAN, NOTES, CALCULATION**

JUNE 28, 2022

**C100**

**PRIMARY AND RESERVE SEPTIC FOR PROPOSED LOT 4-B AND RESERVE SEPTIC FOR LOT 4-A**  
SCALE: 1" = 20'

**DEEP TEST RESULTS:**

NOTE: DEEP TESTS WERE CONDUCTED BY JOELVITO N. VILLALUZ, P.E. LEED AP ON MAY 4, 2022 AND WERE WITNESSED BY JOSH POLUR, RS AND PAMELA SOLIS OF THE STAMFORD DEPARTMENT OF HEALTH.

TH 1  
0 - 8" TOP SOIL  
8 - 24" DARK BROWN SILTY LOAM  
24 - 62" ORANGE BROWN SANDY SILTY LOAM  
62 - 79" ORANGE BROWN SILTY SAND WITH ROCKS  
NO MOTTLING  
NO WATER TABLE  
NO LEDGE  
ROOTS TO 67"

TH 2  
0 - 4" TOPSOIL  
4 - 12" GRAY SILTY SAND  
12 - 42" ORANGE BROWN SILTY SANDY LOAM  
42 - 72" LIGHT BROWN SILTY SAND WITH ROCKS  
NO MOTTLING  
NO WATER TABLE  
NO LEDGE  
ROOTS TO 66"

TH 3  
0 - 5" TOPSOIL  
5 - 13" DARK BROWN SILTY LOAM  
13 - 70" LIGHT ORANGE BROWN SILTY SAND WITH ROCKS  
NO MOTTLING  
NO WATER TABLE  
NO LEDGE  
NO ROOTS

TH 4  
0 - 3" TOPSOIL  
3 - 10" DARK BROWN SILTY LOAM  
10 - 25" ORANGE BROWN SANDY SILTY LOAM  
25 - 38" GRAY SILTY SAND  
38 - 75" GRAY SILTY SAND WITH PEBBLES  
NO MOTTLING  
NO WATER TABLE  
NO LEDGE  
ROOTS 46"

**PERCOLATION TESTS:**

NOTE: TESTS CONDUCTED ON MAY 7, 2022  
ALL PERC. TESTS WERE PREPARED:

PERC TEST A

TIME	READING	FALL
9:50AM	2-1/4"	
10:00AM	1-3/8"	2-1/8"
10:10AM	6-1/4"	1-7/8"
10:20AM	8-1/8"	1-7/8"
10:30AM	9-3/4"	1-3/8"
10:40AM	11-1/8"	1-3/8"
10:50AM	12-1/2"	1-3/8"

7.27 MIN/INCH

PERC TEST B

TIME	READING	FALL
9:50AM	1-7/8"	
10:00AM	4-1/2"	2"
10:10AM	6-1/4"	1-3/4"
10:20AM	8-1/8"	1-3/4"
10:30AM	9-3/4"	1-3/8"
10:40AM	11-1/8"	1-1/2"
10:50AM	12-5/8"	1-1/2"

6.6 MIN/INCH

PERC TEST C

TIME	READING	FALL
10:00AM	3"	
10:10AM	5-1/4"	2-1/4"
10:20AM	7-1/4"	2"
10:30AM	8"	1-3/4"
10:40AM	9-1/2"	1-1/2"
10:50AM	10-3/4"	1-1/4"
11:00AM	12"	1-1/4"

8 MIN/INCH

PERC TEST D

TIME	READING	FALL
10:00AM	2-3/4"	
10:10AM	3-1/8"	2-3/8"
10:20AM	7-1/8"	2"
10:30AM	8-7/8"	1-3/4"
10:40AM	10-3/8"	1-1/2"
10:50AM	12-3/8"	1-1/8"

8.8 MIN/INCH

**SEPTIC DESIGN FOR PROPOSED LOT 4-B**

**MINIMUM LEACHING SYSTEM SPREAD COMPUTATIONS (MLSS)**

PER THE JANUARY 2018 STATE HEALTH CODE, THE MLSS COMPUTATIONS FOR THIS DESIGN ARE AS FOLLOWS:

PROPOSED 100% RESERVE SEPTIC SYSTEM  
HYDRAULIC FACTOR [HF] = VALUE BASED ON THE RECEIVING SOIL DEPTH (RS DEPTH TH1, TH2, AND TH3 ARE THE TEST PITS USED IN CALCULATING THE RS DEPTH.

AVE. DEPTH TH1 & TH3 =  $\frac{75 + 75}{2} = 75'$

AVE. DEPTH TH2 & TH7 =  $\frac{(71 + 73)}{2} = 72'$

RS DEPTH =  $\frac{(75 + 73)}{2} = 74'$

RS DEPTH IS MORE THAN 60', THUS NO MLSS REQUIRED

**SEPTIC DESIGN NOTES**

THE PROPOSED PRIMARY AND RESERVE SEPTIC SYSTEM ARE DESIGNED FOR FIVE (5) BEDROOMS RESIDENTIAL BUILDING.

THE RESERVE AREA WILL REQUIRE A SEPTIC TANK THE MINIMUM CAPACITY OF THE SEPTIC TANK SHALL NOT BE LESS THAN 1,250 GALLONS (1,000 + 100(6-5)) THE SPECIFIED MINIMUM CAPACITY OF THE SEPTIC TANK DO NOT CATER FOR A GARBAGE GRINDER NOR A LARGE CAPACITY BATHTUB (100-200 GALLON) IF THE OWNER PLANS TO USE A GARBAGE GRINDER OR A LARGE CAPACITY TUB AN ADDITIONAL 250 GALLONS SHALL BE ADDED FOR EACH GARBAGE GRINDER AND LARGE CAPACITY TUB.

**PRIMARY SEPTIC SYSTEM DESIGN DATA**

PROPOSED POPULATION = FIVE (5) BEDROOMS, SINGLE FAMILY

THE PRIMARY SEPTIC SYSTEM SHOWN HEREON IS BASED ON THE DEEP TEST HOLES TH1, TH2, TH3 AND TH7 WHEREIN THE RECEIVING SOIL DEPTH IS 73 INCHES. A CUR-TECH CTL-48 WITH AN EFFECTIVE AREA OF 21.9 SQUARE FEET PER LINEAR FOOT WAS USED IN THIS DESIGN.

EFFECTIVE LEACHING AREA COMPUTATIONS:  
EFFECTIVE LEACHING AREA REQUIRED BY CODE FOR FIVE (5) BEDROOMS OF A SINGLE RESIDENCE.  
ELA = 495 + (5-3)(82.5) = 660 SQ FT  
EFFECTIVE AREA PROVIDED (PRIMARY) = 32 LF X 21.9 SF/LF = 700.8 SF (UTILIZING 2 ROW OF 16 FEET CUR-TECH CTL-48)  
EFFECTIVE AREA PROVIDED (RESERVE) = 32 LF X 21.9 SF/LF = 700.8 SF (UTILIZING 1 ROW OF 32 LF CUR-TECH CTL-48)

**SEPTIC DESIGN (RESERVE) FOR PROPOSED LOT 4-A**

**MINIMUM LEACHING SYSTEM SPREAD COMPUTATIONS (MLSS)**

PER THE JANUARY 2018 STATE HEALTH CODE, THE MLSS COMPUTATIONS FOR THIS DESIGN ARE AS FOLLOWS:

PROPOSED 100% RESERVE SEPTIC SYSTEM:  
HYDRAULIC FACTOR [HF] = VALUE BASED ON THE RECEIVING SOIL DEPTH (RS DEPTH TH1, TH2, AND TH3 ARE THE TEST PITS USED IN CALCULATING THE RS DEPTH.

AVE. DEPTH TH2 & TH3 =  $\frac{(72 + 70)}{2} = 71'$

RS DEPTH =  $\frac{(79 + 71)}{2} = 75'$

RS DEPTH IS MORE THAN 60', THUS NO MLSS REQUIRED

**100% RESERVE SEPTIC DESIGN NOTES**

THE PROPOSED RESERVE AREA IS DESIGNED FOR SIX (6) BEDROOMS MULTI-FAMILY RESIDENTIAL BUILDING.

THE RESERVE AREA WILL REQUIRE A SEPTIC TANK THE MINIMUM CAPACITY OF THE SEPTIC TANK SHALL NOT BE LESS THAN 2,000 GALLONS (1,250 + 250(6-3)) THE SPECIFIED MINIMUM CAPACITY OF THE SEPTIC TANK DO NOT CATER FOR A GARBAGE GRINDER NOR A LARGE CAPACITY BATHTUB (100-200 GALLON) IF THE OWNER PLANS TO USE A GARBAGE GRINDER OR A LARGE CAPACITY TUB AN ADDITIONAL 250 GALLONS SHALL BE ADDED FOR EACH GARBAGE GRINDER AND LARGE CAPACITY TUB.

**100% RESERVE SEPTIC SYSTEM DESIGN DATA**

EXISTING POPULATION = SIX (6) BEDROOMS, MULTI-FAMILY  
PROPOSED POPULATION = SIX (6) BEDROOMS, MULTI-FAMILY

THE 100% RESERVE SEPTIC SYSTEM SHOWN HEREON IS BASED ON THE DEEP TEST HOLES TH1, TH2, AND TH3 WHEREIN THE RECEIVING SOIL DEPTH IS 75 INCHES. A CUR-TECH CTL-48 WITH AN EFFECTIVE AREA OF 21.9 SQUARE FEET PER LINEAR FOOT WAS USED IN THIS DESIGN.

EFFECTIVE LEACHING AREA COMPUTATIONS:  
EFFECTIVE LEACHING AREA REQUIRED BY CODE FOR SIX (6) BEDROOMS OF A MULTI-FAMILY RESIDENCE.  
ELA = 495 + (6-3)(165) = 990 SQ FT  
EFFECTIVE AREA PROVIDED = 48 LF X 21.9 SF/LF = 1,051.2 SF (UTILIZING 2 ROWS OF 24 FEET CUR-TECH CTL-48)

**SEPTIC DESIGN (RESERVE) FOR PROPOSED LOT 4-A**

**MINIMUM LEACHING SYSTEM SPREAD COMPUTATIONS (MLSS)**

PER THE JANUARY 2018 STATE HEALTH CODE, THE MLSS COMPUTATIONS FOR THIS DESIGN ARE AS FOLLOWS:

PROPOSED 100% RESERVE SEPTIC SYSTEM:  
HYDRAULIC FACTOR [HF] = VALUE BASED ON THE RECEIVING SOIL DEPTH (RS DEPTH TH1, TH2, AND TH3 ARE THE TEST PITS USED IN CALCULATING THE RS DEPTH.

AVE. DEPTH TH2 & TH3 =  $\frac{(72 + 70)}{2} = 71'$

RS DEPTH =  $\frac{(79 + 71)}{2} = 75'$

RS DEPTH IS MORE THAN 60', THUS NO MLSS REQUIRED

**100% RESERVE SEPTIC DESIGN NOTES**

THE PROPOSED RESERVE AREA IS DESIGNED FOR SIX (6) BEDROOMS MULTI-FAMILY RESIDENTIAL BUILDING.

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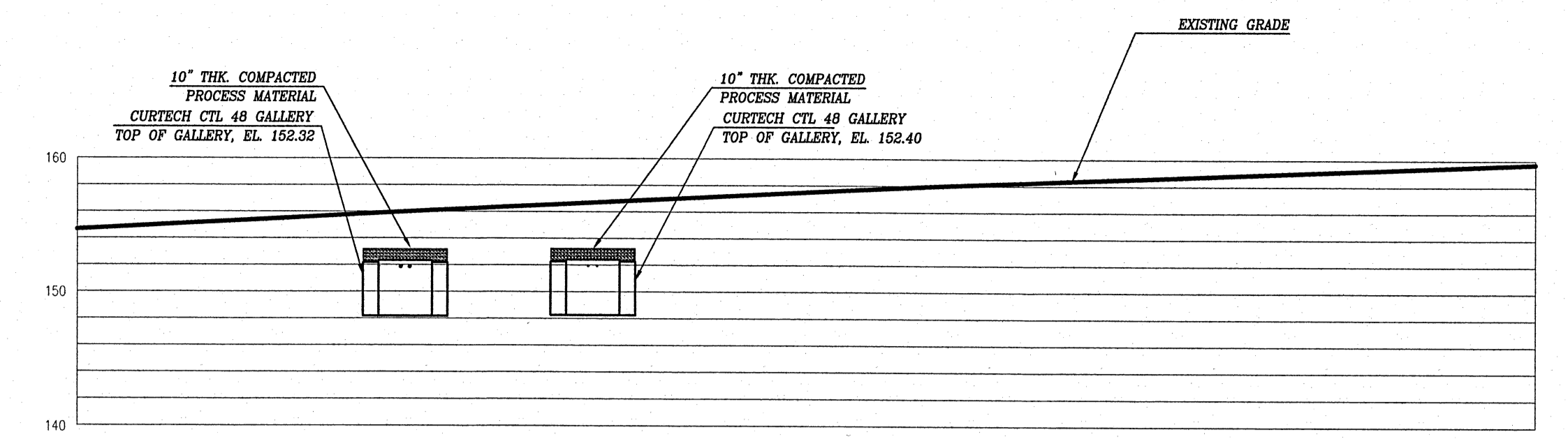
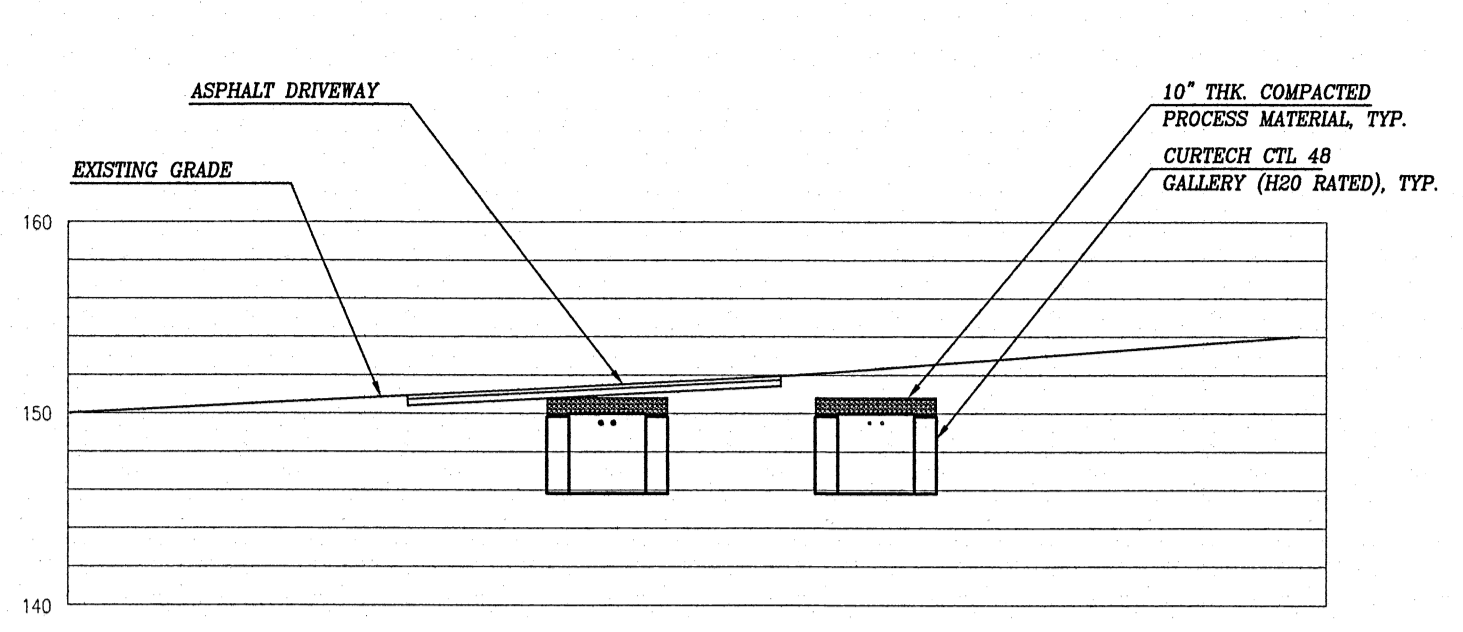
**100% RESERVE SEPTIC SYSTEM DESIGN DATA**

EXISTING POPULATION = SIX (6) BEDROOMS, MULTI-FAMILY  
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THE 100% RESERVE SEPTIC SYSTEM SHOWN HEREON IS BASED ON THE DEEP TEST HOLES TH1, TH2, AND TH3 WHEREIN THE RECEIVING SOIL DEPTH IS 75 INCHES. A CUR-TECH CTL-48 WITH AN EFFECTIVE AREA OF 21.9 SQUARE FEET PER LINEAR FOOT WAS USED IN THIS DESIGN.

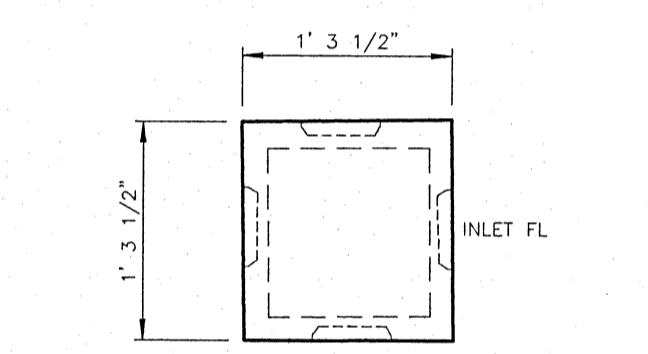
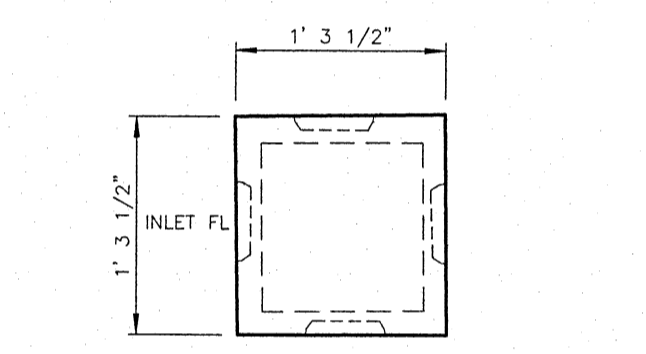
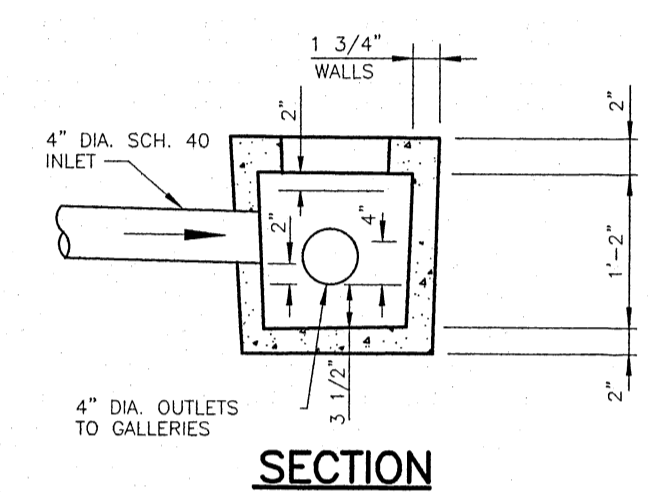
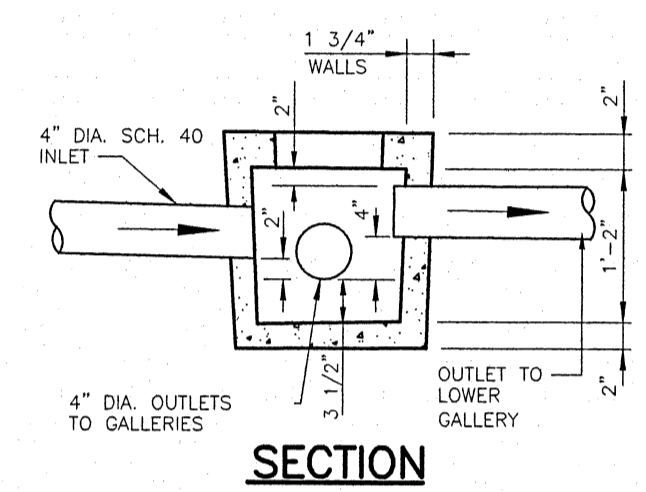
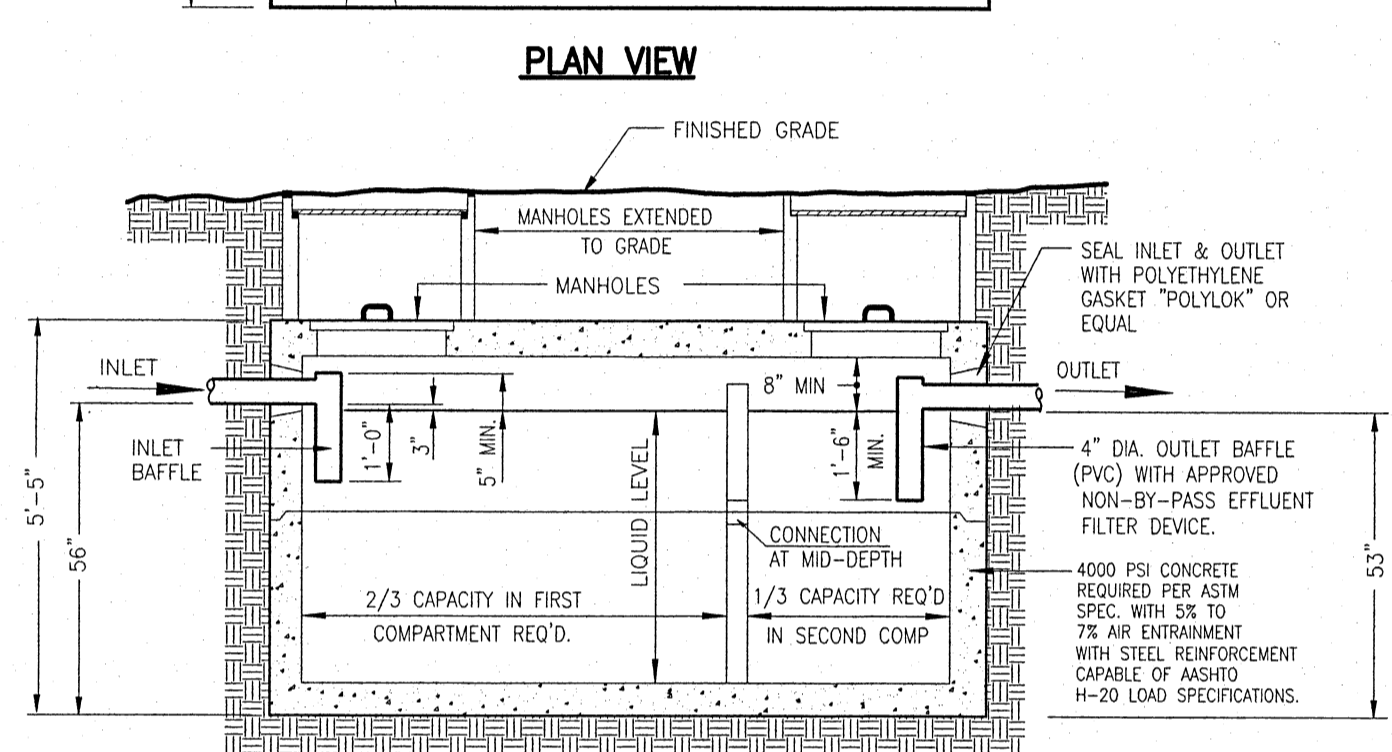
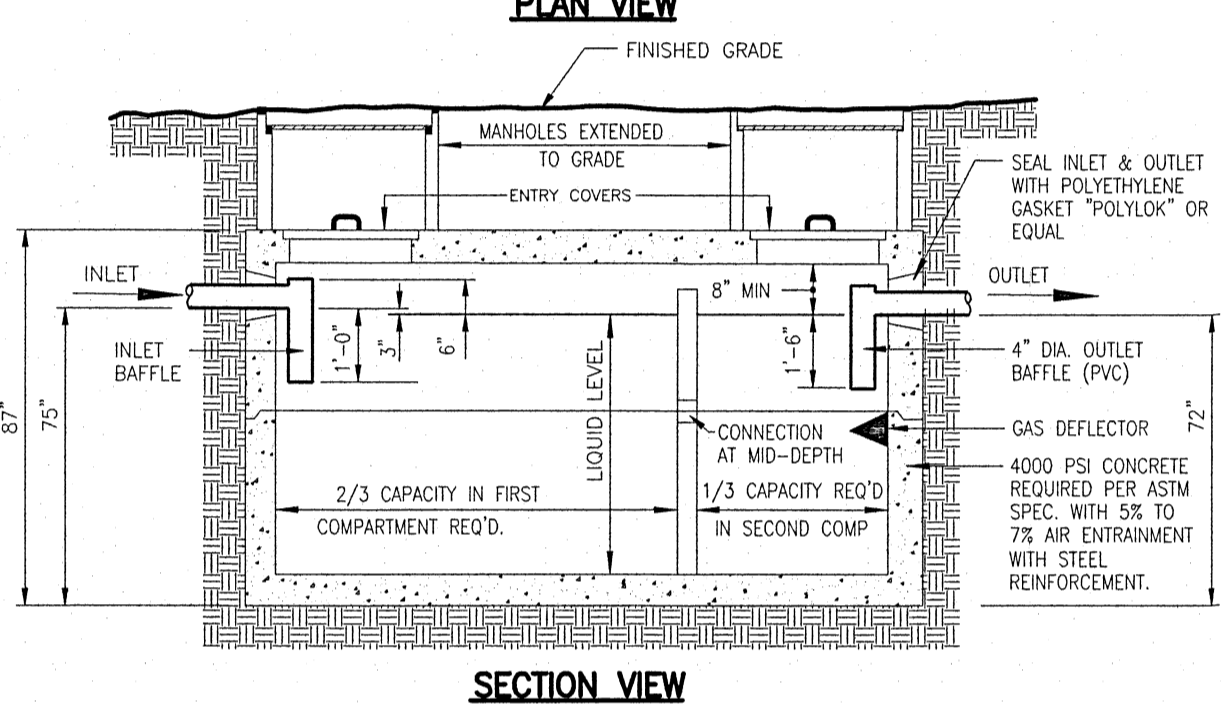
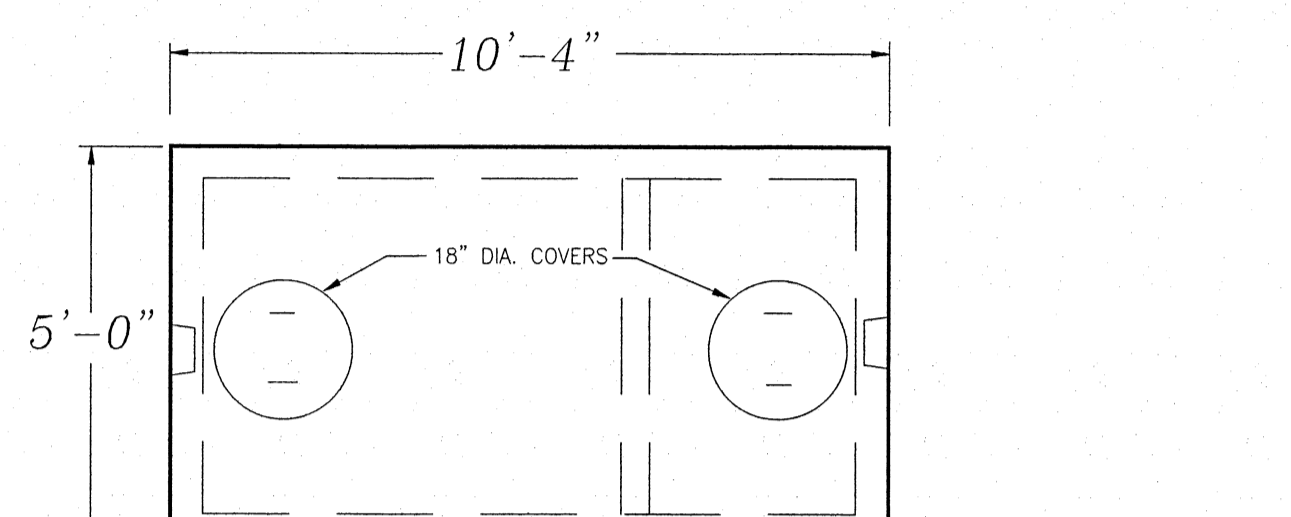
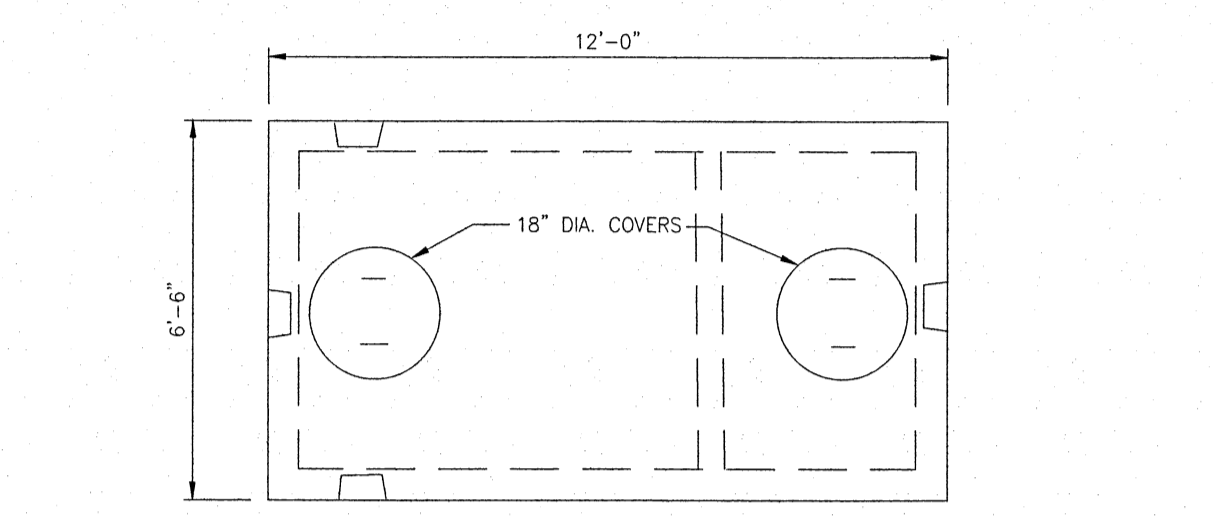
EFFECTIVE LEACHING AREA COMPUTATIONS:  
EFFECTIVE LEACHING AREA REQUIRED BY CODE FOR SIX (6) BEDROOMS OF A MULTI-FAMILY RESIDENCE.  
ELA = 495 + (6-3)(165) = 990 SQ FT  
EFFECTIVE AREA PROVIDED = 48 LF X 21.9 SF/LF = 1,051.2 SF (UTILIZING 2 ROWS OF 24 FEET CUR-TECH CTL-48)

MAP NO. 68  
BLOCK 377  
LOT 4  
AREA = 0.864± Acres  
ZONING: R-20



1 SECTION (SEPTIC RESERVE FOR LOT 4-A)  
SCALE: 1" = 10'

2 SECTION (PRIMARY SEPTIC FOR LOT 4-B)  
SCALE: 1" = 10'

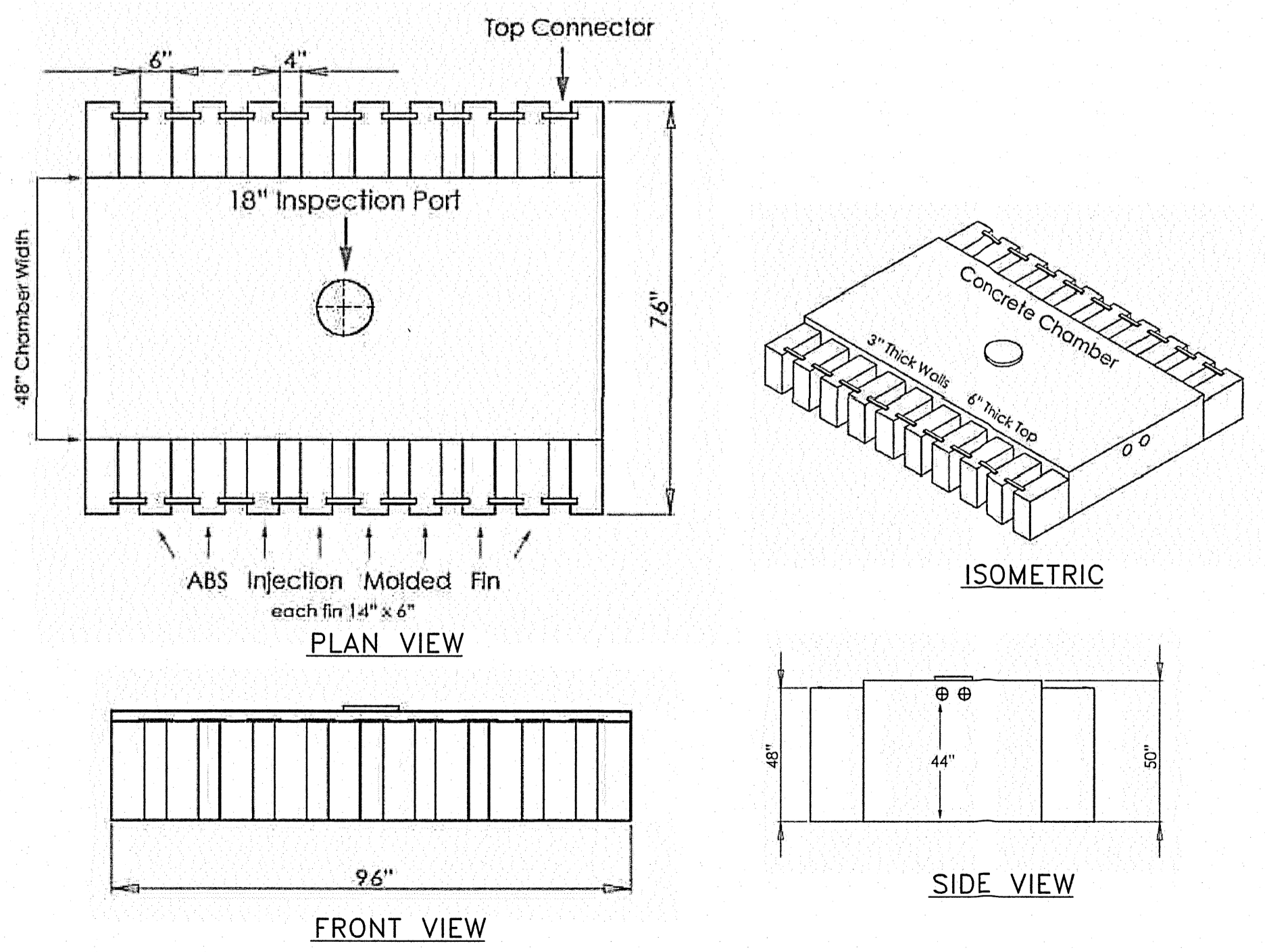


3 2,000 GALLON H-20 SEPTIC TANK (FOR LOT 4-A, RESERVE)  
SCALE: N.T.S.

4 1,250 GALLON SEPTIC TANK (FOR LOT 4-B, PRIMARY SEPTIC)  
SCALE: N.T.S.

5 DISTRIBUTION BOX (DB#1)  
SCALE: N.T.S.

6 DISTRIBUTION BOX (DB#2)  
SCALE: N.T.S.



7 CUR-TECH CTL-48 UNIT  
SCALE: N.T.S.

CIVIL ENGINEER:  
JOELVITO N. VILLALUZ, P.E. LEED AP  
CT PE LIC. NO. 23386  
1 GILBERT STREET  
SHELTON, CONNECTICUT 06484  
TELEFAX: 203.922.8240

SCALE :  
AS SHOWN

PENDING MUNICIPAL APPROVAL

DRAWING REVISIONS

NO.	DESCRIPTION	DATE

SEPTIC PRIMARY AND 100% RESERVE FOR 5 BEDROOMS AT 18 OPPER ROAD (LOT 4-B), STAMFORD, CT 06903

FOR DARIO AND MARIA PALLADINO 18 OPPER ROAD STAMFORD, CT 06903

SEPTIC DETAILS

JUNE 28, 2022

C101

MAP NO. 68  
BLOCK 377  
LOT 4  
AREA = 0.864± Acres  
ZONING: R-20