

**System Layout for Bonnie Brown:  
20 Q-Cells 320W Modules  
Ballasted 4X5-Panel on Fixed-Ground Mount**



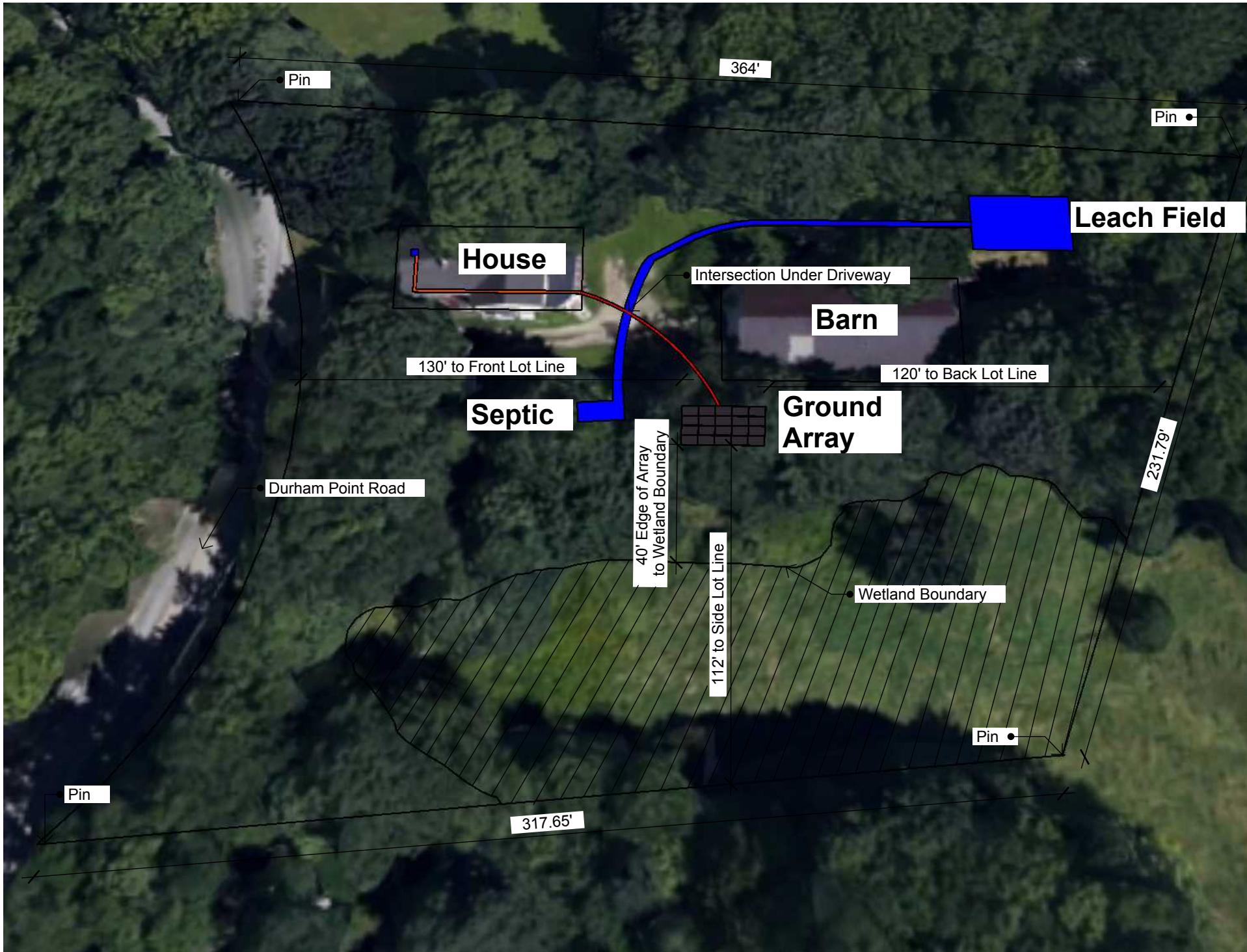
CLIENT  
Bonnie Brown  
258 Durham Point Rd.  
Durham, NH

ISSUE  
12/20/2019  
CONSULTANT  
Marilyn Hilton

PROJECT NO.  
245.170  
PROJECT  
Brown

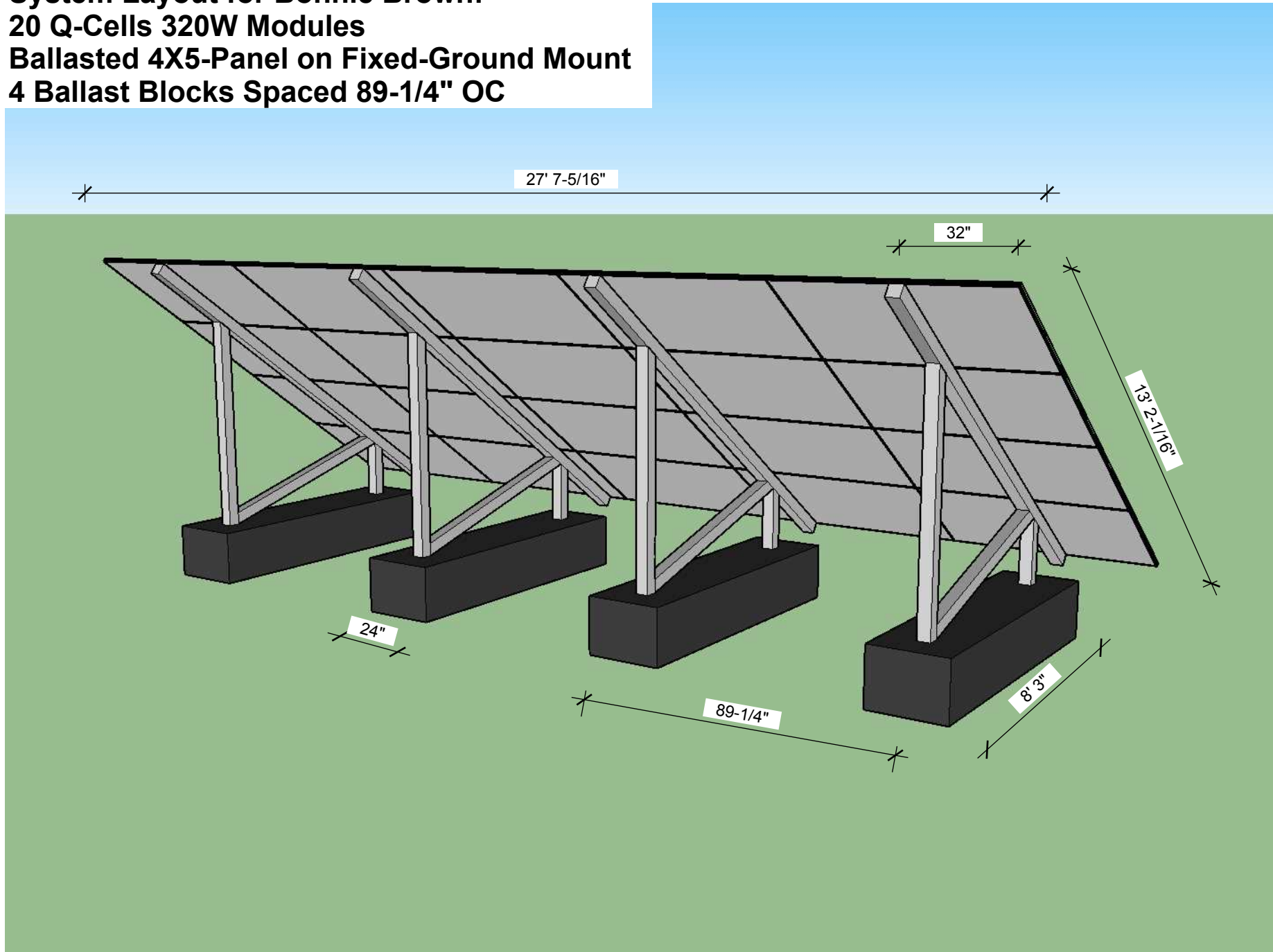
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EP  
DESCRIPTION  
Layout





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ISSUE	12/20/2019
CONSULTANT	Marilyn Hilton
PROJECT NO.	245.170
PROJECT	Brown
DRAWN BY	EP
<b>a</b>	
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**System Layout for Bonnie Brown:  
 20 Q-Cells 320W Modules  
 Ballasted 4X5-Panel on Fixed-Ground Mount  
 4 Ballast Blocks Spaced 89-1/4" OC**



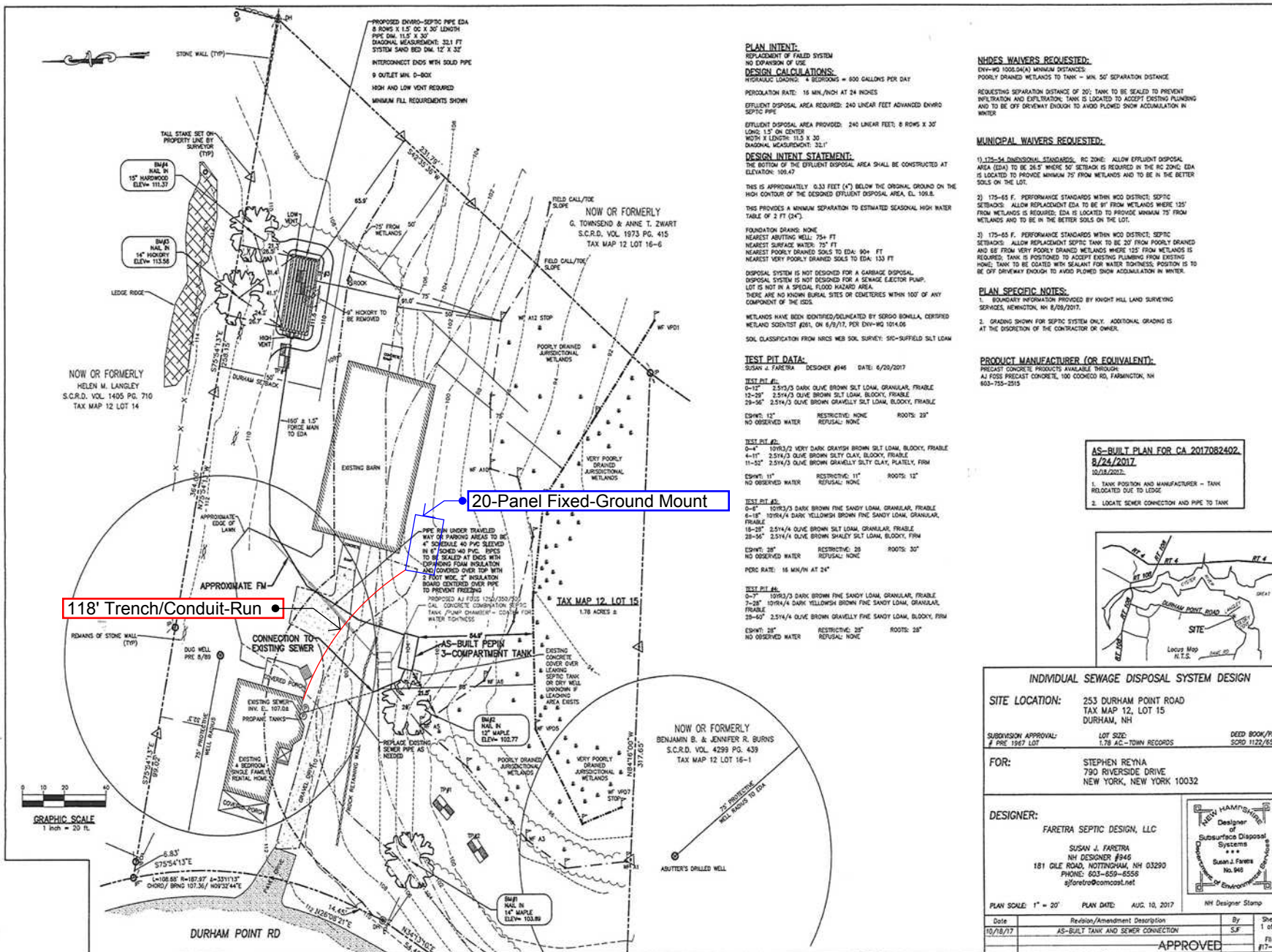
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**PLAN INTENT:**  
 REPLACEMENT OF FAILED SYSTEM  
 NO EXPANSION OF USE

**DESIGN CALCULATIONS:**  
 WREASULT LOADING: 4 BEDROOMS = 800 GALLONS PER DAY  
 PERCOLATION RATE: 15 MIN/IN AT 24 INCHES  
 EFFLUENT DISPOSAL AREA REQUIRED: 240 LINEAR FEET ADVANCED ENVIRO SEPTIC PIPE

**EFFLUENT DISPOSAL AREA PROVIDED:** 240 LINEAR FEET, 8 ROWS X 30' LONG, 1.5" ON CENTER  
 WIDTH X LENGTH: 11.2 X 30'  
 DIAGONAL MEASUREMENT: 32.1'

**DESIGN INTENT STATEMENT:**  
 THE BOTTOM OF THE EFFLUENT DISPOSAL AREA SHALL BE CONSTRUCTED AT ELEVATION: 109.47

THIS IS APPROXIMATELY 0.33 FEET (4") BELOW THE ORIGINAL GROUND ON THE HIGH CONTOUR OF THE RECORD EFFLUENT DISPOSAL AREA (L: 100.4).

THIS PROVIDES A MINIMUM SEPARATION TO ESTIMATED SEASONAL HIGH WATER TABLE OF 2 FT (24").

**FOUNDATION DRAINS:** NONE  
 NEAREST ABUTTING WELL: 75+ FT  
 NEAREST SURFACE WATER: 75' FT  
 NEAREST POORLY DRAINED SOILS TO EDA: 90+ FT  
 NEAREST VERY POORLY DRAINED SOILS TO EDA: 133 FT

**DISPOSAL SYSTEM IS NOT DESIGNED FOR A GARBAGE DISPOSAL SYSTEM. DISPOSAL SYSTEM IS NOT DESIGNED FOR A SEWAGE EJECTOR PUMP.**  
 LOT IS NOT IN A SPECIAL FLOOD HAZARD AREA.  
 THERE ARE NO KNOWN BURIAL SITES OR CEMETERIES WITHIN 100' OF ANY COMPONENT OF THE OSD.

METLANDS HAVE BEEN IDENTIFIED/DELIMITED BY SERGIO BONELLA, CERTIFIED METLAND SCIENTIST #261, DN 8/9/17, PDI-DIV-1014.06  
 SOIL CLASSIFICATION FROM NRCS WEB SOIL SURVEY: SFC-SUFFLED SALT LOAM

**TEST PIT DATA:**  
 TESTAN J. FARETRA DESIGNER #948 DATE: 6/20/2017

**TEST PIT #1:**  
 0-12" 2.519/3 DARK OLIVE BROWN SILT LOAM, GRANULAR, FRABLE  
 12-20" 2.514/3 OLIVE BROWN SILT LOAM, BLOODY, FRABLE  
 20-36" 2.514/3 OLIVE BROWN GRAVELLY SILTY CLAY, PLATEY, FIRM

EDHW: 12" RESTRICTIVE: NONE ROOTS: 23"  
 NO OBSERVED WATER REFUSAL: NONE

**TEST PIT #2:**  
 0-11" 1019/3 VERY DARK GRAYISH BROWN SILT LOAM, BLOODY, FRABLE  
 11-32" 2.514/3 OLIVE BROWN SILTY CLAY, BLOODY, FRABLE  
 32-56" 2.514/3 OLIVE BROWN SILTY CLAY, PLATEY, FIRM

EDHW: 11" RESTRICTIVE: 11" ROOTS: 12"  
 NO OBSERVED WATER REFUSAL: NONE

**TEST PIT #3:**  
 0-4" 1019/3 DARK BROWN FINE SANDY LOAM, GRANULAR, FRABLE  
 4-18" 1019/4 DARK YELLOWISH BROWN FINE SANDY LOAM, GRANULAR, FRABLE  
 18-30" 2.514/4 OLIVE BROWN SILT LOAM, GRANULAR, FRABLE  
 30-56" 2.514/4 OLIVE BROWN SHALEY SILT LOAM, BLOODY, FIRM

EDHW: 28" RESTRICTIVE: 28" ROOTS: 30"  
 NO OBSERVED WATER REFUSAL: NONE

PERC RATE: 15 MIN/IN AT 24"

**TEST PIT #4:**  
 0-7" 1019/3 DARK BROWN FINE SANDY LOAM, GRANULAR, FRABLE  
 7-28" 1019/4 DARK YELLOWISH BROWN FINE SANDY LOAM, GRANULAR, FRABLE  
 28-40" 2.514/4 OLIVE BROWN GRAVELLY FINE SANDY LOAM, BLOODY, FIRM

EDHW: 28" RESTRICTIVE: 28" ROOTS: 25"  
 NO OBSERVED WATER REFUSAL: NONE

**MINOR WAIVERS REQUESTED:**  
 DIV-101 (SD-14) MINIMUM DISTANCES:  
 POORLY DRAINED METLANDS TO TANK = MIN. 50' SEPARATION DISTANCE  
 REQUESTING SEPARATION DISTANCE OF 20'; TANK TO BE SEALED TO PREVENT INFILTRATION AND EXFILTRATION; TANK IS LOCATED TO ACCEPT EXISTING PLUMBING AND TO BE OFF DRIVEWAY ENOUGH TO AVOID PLOWED SNOW ACCUMULATION IN WINTER.

**MUNICIPAL WAIVERS REQUESTED:**

- 1) 175-54 DIMENSIONAL STANDARDS, RC ZONE: ALLOW EFFLUENT DISPOSAL AREA (EDA) TO BE 24.5' WHERE 50' SETBACK IS REQUIRED IN THE RC ZONE. EDA IS LOCATED TO PROVIDE MINIMUM 75' FROM METLANDS AND TO BE IN THE BETTER SOILS ON THE LOT.
- 2) 175-45 F. PERFORMANCE STANDARDS WITH W/O DISTRICT, SEPTIC SETBACKS: ALLOW REPLACEMENT SEPTIC TANK TO BE 20' FROM POORLY DRAINED METLANDS WHERE 125' FROM METLANDS IS REQUIRED; EDA IS LOCATED TO PROVIDE MINIMUM 75' FROM METLANDS AND TO BE IN THE BETTER SOILS ON THE LOT.
- 3) 175-65 F. PERFORMANCE STANDARDS WITH W/O DISTRICT, SEPTIC SETBACKS: ALLOW REPLACEMENT SEPTIC TANK TO BE 20' FROM POORLY DRAINED AND 65' FROM VERY POORLY DRAINED METLANDS WHERE 125' FROM METLANDS IS REQUIRED; TANK IS POSITIONED TO ACCEPT EXISTING PLUMBING FROM EXISTING HOME; TANK TO BE COATED WITH SEALANT FOR WATER TIGHTNESS; POSITION IS TO BE OFF DRIVEWAY ENOUGH TO AVOID PLOWED SNOW ACCUMULATION IN WINTER.

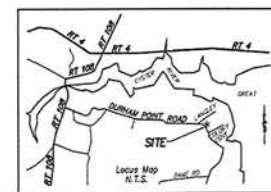
**PLAN SPECIFIC NOTES:**

1. BOUNDARY INFORMATION PROVIDED BY KNIGHT HILL LAND SURVEYING SERVICES, KEENE, NH 8/29/2017.
2. GRADING SHOWN FOR SEPTIC SYSTEM ONLY. ADDITIONAL GRADING IS AT THE DISCRETION OF THE CONTRACTOR OR OWNER.

**PRODUCT MANUFACTURER (OR EQUIVALENT):**  
 PRECAST CONCRETE PRODUCTS AVAILABLE THROUGH:  
 A1 FOSS PRECAST CONCRETE, 100 COOKWOOD RD, FARMINGTON, NH  
 603-755-2515

**AS-BUILT PLAN FOR CA 2017082402**  
**8/24/2017**  
 10/28/2022

1. TANK POSITION AND MANUFACTURER - TANK RELOCATED DUE TO LEUGE
2. LOCATE SEWER CONNECTION AND PIPE TO TANK



**INDIVIDUAL SEWAGE DISPOSAL SYSTEM DESIGN**

**SITE LOCATION:** 253 DURHAM POINT ROAD  
 TAX MAP 12, LOT 15  
 DURHAM, NH

**SUBDIVISION APPROVAL:** LOT SIZE: 1.78 AC - TOWN RECORDS DEED BOOK/PAGE:  
 # PRE 1967 LOT 178 AC - TOWN RECORDS SCRD 1122/854

**FOR:** STEPHEN REYNA  
 790 RIVERSIDE DRIVE  
 NEW YORK, NEW YORK 10032

**DESIGNER:** FARETRA SEPTIC DESIGN, LLC  
 SUSAN J. FARETRA  
 NH DESIGNER #948  
 181 GLE ROAD, NOTTINGHAM, NH 03290  
 PHONE: 603-859-6556  
 sjfaretra@comcast.net

**PLAN SCALE:** 1" = 20' **PLAN DATE:** AUG. 10, 2017 **NH Designer Stamp**

Date	Revision/Amendment Description	By	Sheet
10/18/17	AS-BUILT TANK AND SEWER CONNECTION	SJF	1 of 2
<b>APPROVED</b>			File #17-115

*Susan J. Faretra* DATE 10/19/17



**View From Array Looking South**



**View South of Array Looking NW**



**View of Array Location**



**View of Array Location**



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