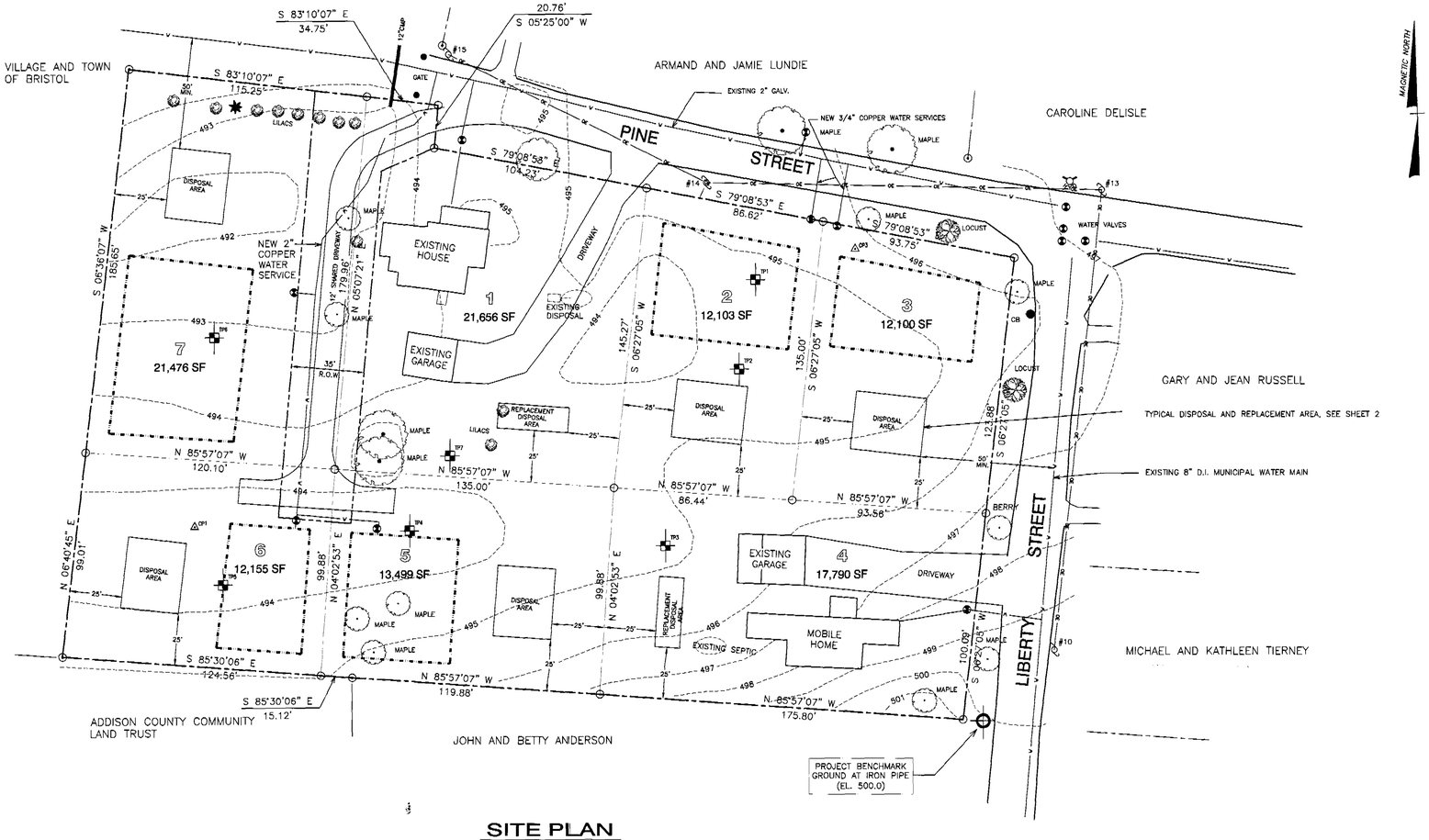


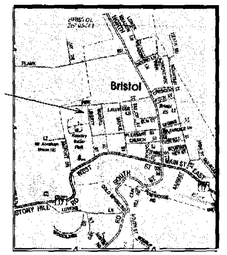
SITE PLAN

-TOPOGRAPHY BY TOTAL STATION-
1 INCH = 30 FEET

30 15 0 30 60 90 FT

TOTAL AREA = 2.54 ACRES

SITE



LOCUS

LEGEND

- TP1 — TEST PIT
- P1 — PERCOLATION TEST
- CP1 — CONTROL POINT (OR POINT BY OTHERS)
- IRON PIPE/ROD
- FIRE HYDRANT
- UTILITY POLE
- DRILLED WELL
- WATER SHUTOFF
- APPROX. LOCATION OF EXISTING SEPTIC TANK AND DISPOSAL FIELD
- EXISTING CONTOURS
- BOUNDARY
- RIGHT-OF-WAY
- BUILDING ENVELOPE
- TREELINE
- WATER LINE
- O/H ELECTRIC LINE
- U/G ELECTRIC LINE

TYPICAL DISPOSAL AND REPLACEMENT AREA, SEE SHEET 2

EXISTING 8" D.I. MUNICIPAL WATER MAIN

I HEREBY CERTIFY THAT IN MY REASONABLE PROFESSIONAL JUDGEMENT, THE DESIGN RELATED INFORMATION SUBMITTED WITH THIS APPLICATION, IS TRUE, CORRECT AND THE DESIGN INCLUDED IN THIS APPLICATION FOR A PERMIT COMPLIES WITH THE VT. WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES AND THE VT. WATER SUPPLY RULES.

JAMES TYLER HART, P. E., L.S.

"APPROVED" Administrant of Drinking Water and Groundwater Protection

Approved By: Patrick J. Humphries

PROPERTY OWNER

LAWSON HAMMOND ESTATE
C/O MAUREEN GAROFANO
476 MAIN STREET
WINOOSKI, VT 05404

Permit # WW-9-0682

DATE: 12/28/04

APPLICANT

BRUCE LADEAU & JEANIE MACDONOUGH
1603 LIME KILN ROAD
CHARLOTTE, VT 05445

BRISTOL ZONING – HDR – HIGH DENSITY RESIDENTIAL

PERMITTED USES – ONE AND TWO FAMILY RESIDENTIAL

MIN. LOT AREA – 12,000 S.F.
MIN. ACRE/DWELLING – 6,000 S.F.
MIN. LOT FRONTAGE – 75 FT.
MIN. LOT DEPTH – 100 FT.
FRONT YARD SETBACK – 40 FT.
REAR YARD SETBACK – NONE
SIDE YARD SETBACK – 10 FT.
LOT COVERAGE – 30 %
BUILDING HEIGHT – 35 FT.

DISPOSAL FIELD ISOLATION DISTANCES

	LEACHFIELD	SEPTIC TANK
MUNICIPAL WATER MAIN –	50 FT.	25 FT.
WATER SERVICE –	25 FT.	25 FT.
ROADS/DRIVEWAYS –	10 FT.	5 FT.
PROPERTY LINES –	25 FT.	10 FT.
TREES –	10 FT.	10 FT.
FOOTING DRAINS –	35 FT.	

REVISIONS	BY

TYLER HART, P.E., L.S.
CONSULTING ENGINEERING AND SURVEYING
P. O. BOX 118
HUNTINGTON - VERMONT 05462
(802) 434-3217

7-LOT SUBDIVISION

APPLICANTS:
BRUCE LADEAU AND
JEANIE MACDONOUGH

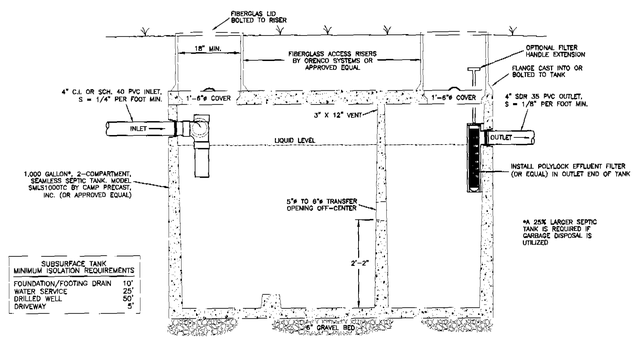
JAMES TYLER HART — REGISTERED PROFESSIONAL ENGINEER

Hammond Property

Pine Street/Liberty Street
Bristol - Vermont

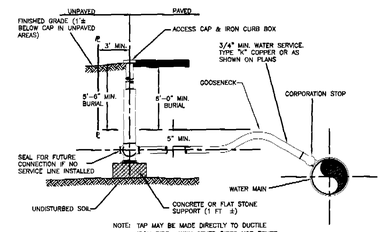
NOV 16 2004

DRAWN	TH
CHECKED	TH
DATE	11/04
SCALE	NOTED
JOB NO.	04-13
SHEET	1



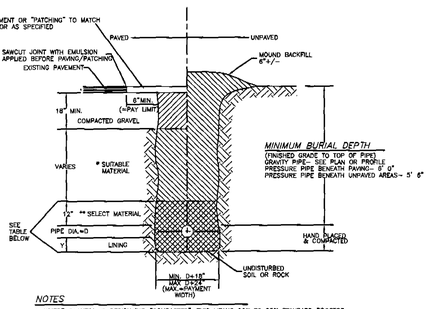
-TYPICAL- SEPTIC TANK

NO SCALE



CURB STOP WITH BOX -TAPPED CONNECTION

NTS



NOTES

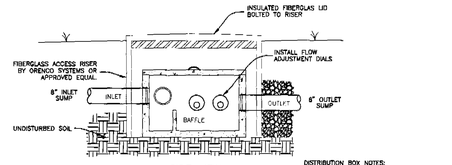
1. WHERE BACKFILL IS DESIGNATED "COMPACTED", THIS MEANS 90% TO 95% STANDARD PROCTOR, AASHTO T-99. ALL FILL PLACED BELOW PIPES AND STRUCTURES MUST MEET THIS REQUIREMENT.
2. FOR ALL TRENCHES WITH A GRADE GREATER THAN 4% AND/OR WHERE GROUNDWATER IS APPARENT, INSTALL CLAY DAMS AROUND PIPE AT 100' INTERVALS.

Y-DIMENSION	CONDITION & PIPE	**SELECT MATERIAL	LINING
0"	DUCTILE IRON PIPE IN "ORDINARY SOIL"	TYPE I,II,OR III	—
3"	RCP PIPE IN "ORDINARY SOIL"	TYPE II OR III	SAND OR TYPE III
6"	ALL PIPE OVER BEDROCK OR LEDGE	TYPE II OR III	SAND OR TYPE III
4"	DUCTILE IRON PIPE IN CLAY OR MUCK	TYPE II OR III	SAND
8"	RCP PIPE IN CLAY	TYPE II OR III	SAND
6"	PLASTIC--ALL	SAND OR TYPE III	SAND OR TYPE III

* SUITABLE MATERIAL SHALL CONTAIN NO STONES GREATER THAN 4" IN DIAMETER, NO FROZEN LUMPS, AND ONLY MINOR AMOUNTS OF CLAY OR ORGANIC MATERIAL. ALL MATERIAL TO BE PLACED IN MAXIMUM OF 12" LIFTS AND COMPACTED BEFORE PLACING NEXT LIFT.
** TYPE I MATERIAL SHALL BE EITHER GRAVEL OR EXCAVATED MATERIAL CONTAINING NO STONES GREATER THAN 1 1/2" IN DIAMETER, NO FROZEN LUMPS, NO CLAY, AND NO ORGANIC MATERIAL.
** TYPE II MATERIAL SHALL BE CLEAN, HARD, CRUSHED OR NATURAL STONE WITH A GRADATION BY WEIGHT OF 100% PASSING A 1 1/2" SQUARE OPENING, NOT MORE THAN 25% PASSING A 3/4" SQUARE OPENING AND NOT MORE THAN 5% PASSING A 1/2" SQUARE OPENING.
** TYPE III MATERIAL SHALL BE CLEAN, HARD, CRUSHED STONE, FREE FROM COATINGS AND THOROUGHLY WASHED WITH A GRADATION BY WEIGHT OF 100% PASSING A 1" SQUARE OPENING AND 0 TO 5% PASSING A 1/4" SQUARE OPENING.

TYPICAL TRENCH DETAIL

NTS



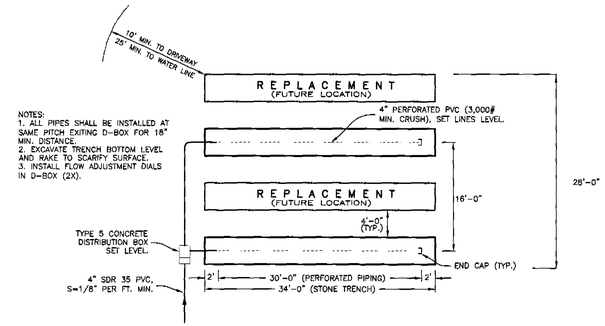
SIDE VIEW

DISTRIBUTION BOX

NO SCALE

DISTRIBUTION BOX NOTES:

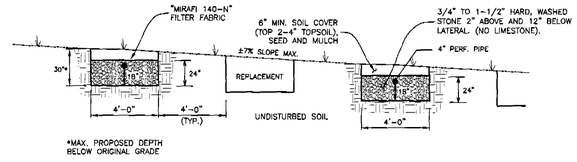
1. TYPE 5 CONCRETE BOX.
2. 4000 PSI CONCRETE, 28-DAY STRENGTH.
3. REINFORCING AS REQUIRED.
4. LOW PRESSURE SEALS DESIGNED TO ACCEPT 4" PVC PIPE.



NOTES:
1. ALL PIPES SHALL BE INSTALLED AT SAME PITCH EXITING D-BOX FOR 18" MIN. DISTANCE.
2. EXCAVATE TRENCH BOTTOM LEVEL AND RAKE TO SCARIFY SURFACE.
3. INSTALL FLOW ADJUSTMENT DIALS IN D-BOX (2X).

ABSORPTION TRENCH PLAN

1" = 10'-0"



*MAX. PROPOSED DEPTH BELOW ORIGINAL GRADE

ABSORPTION TRENCH ELEVATION

1" = 4'-0"

TEST PIT LOG

DATE CONDUCTED: OCTOBER 14, 2004
TEST PITS WITNESSED BY TYLER HART
ALL PITS PROBED TO 82" NO LEDGE FOUND

TEST PIT 1
0-4" TOPSOIL
4-36" LT. BR. FINE SAND
36-82" COARSE BR.SAND
NO LEDGE
NO WT

TEST PIT 2
0-4" TOPSOIL
4-72" LT.BR. SAND
NO LEDGE
NO WT

TEST PIT 3
0-4" TOPSOIL
4-72" LT. BR. SAND
NO LEDGE
NO WT

TEST PIT 4
0-4" TOPSOIL
4-82" LT. BR. SAND
NO LEDGE
NO WT

TEST PIT 5
0-4" TOPSOIL
4-24" FINE BR. SAND
24-36 LT. BR. SAND
36-82" GRAVEL
NO LEDGE
NO WT

TEST PIT 6
0-4" TOPSOIL
4-72" LT. BR. SAND
NO LEDGE
NO WT

TEST PIT 7
0-4" TOPSOIL
4"-72" LT BR. SAND
NO LEDGE
NO WT

PERC. TESTS 1-7 CONDUCTED NEAR CORRESPONDING TP#, ALL AT 24" DEPTH, 7 RUNS, EXTRAPOLATED TO 1440 MINS.

P1- 4 MPI
P2- 4 MPI
P3- 5 MPI
P4- 5 MPI
P5- 4 MPI
P6- 4 MPI
P7- 3 MPI

SOIL TESTING WAS DONE IN A LOCATION AND SPACING TO VERIFY THE UNIFORMITY OF SOILS OVER THE ENTIRE SITE AND ARE CERTIFIED AS SAME IN ACCORDANCE WITH EPR RULES.

GLOBAL POSITIONING DATA

FEATURE	LATITUDE	LONGITUDE
1) EXISTING 3 BEDROOM HOUSE DISPOSAL FIELD	44° 08' 17.2" N	73° 05' 20.9" W
2) EXISTING 3 BEDROOM MOBILE HOME FIELD	44° 08' 16.8" N	73° 05' 19.1" W
4) PROPOSED SUBDIVISION DISPOSAL FIELDS	44° 08' 17.2" N	73° 05' 21.4" W

WGS 84 CRITERIA

BASIS OF DESIGN - PROPOSED 4 BR HOMES

PROPOSED 4 BR HOME @140 GPD/BR + 70GPD= 490 GPD DESIGN FLOWS.
APPLICATION RATE (Q): 3/5.0 = 1.34 GDSF
490 GPD/1.346 GDSF = 366 SF REQUIRED ABSORPTION AREA
CONSTRUCT (2) 4'W X 34'L ABSORPTION TRENCHES = 366 SF

DISPOSAL FIELD REDUCTION FOR 18" OF STONE= 0.71 X 366= 272 S.F.

CONSTRUCTION NOTES

1. CONTACT THE ENGINEER PRIOR TO ANY CONSTRUCTION FOR AN ONSITE MEETING WITH THE CONTRACTOR TO STAKE-OUT THE DISPOSAL SYSTEM AND TO DISCUSS CONSTRUCTION REQUIREMENTS.
2. ALL ELEVATIONS OF FEATURES SUCH AS FLOOR AND SEPTIC TANK TO BE FIELD VERIFIED. REPORT ANY PROPOSED CHANGES IN THE LOCATIONS OF THE HOUSE, SUBSURFACE TANKS, DRIVEWAY, ETC.
3. CONTACT ENGINEER FOLLOWING INSTALLATION OF THE SYSTEM, BUT PRIOR TO BACKFILLING THE ABSORPTION TRENCHES OR SUBSURFACE TANKS.

OPERATION AND MAINTENANCE NOTES -- TYPICAL

1. THE DISPOSAL SYSTEM MAY REQUIRE ADJUSTMENTS OR MODIFICATIONS DURING START-UP AS WELL AS DURING THE LIFETIME OF THE SYSTEM. THESE ADJUSTMENTS INCLUDE RE-LEVELING THE PUMP STATION OR SEPTIC TANK DUE TO FROST ACTION OR SETTLEMENT. FILL MAY BE ADDED TO REPAIR EROSION OR LEVEL SETTLED AREAS.
2. REGULAR INSPECTION AND MAINTENANCE: THE SEPTIC TANK MUST BE PUMPED EVERY THREE YEARS OR MORE FREQUENTLY DEPENDING UPON USAGE. THE PUMP STATION SHOULD BE PUMPED AND INSPECTED AT THIS TIME AS WELL. ALL PLUMBING AND ELECTRICAL COMPONENTS ASSOCIATED WITH THE PUMP STATION MUST BE CHECKED REGULARLY FOR OPERATION AND LEAKS. THE EFFLUENT FILTER INSTALLED IN THE SEPTIC TANK OUTLET BAFFLE SHOULD ALSO BE CLEANED (HOSED-OFF) WHENEVER THE SEPTIC TANK IS PUMPED (OR MORE FREQUENTLY IF NEEDED). CONTACT A SEPTIC SERVICE IF SEWAGE BEGINS TO DRAIN SLOWLY FROM THE HOUSE. THE FILTER MAY BE PLUGGED AND THE SEPTIC TANK MAY REQUIRE PUMPING.
3. IMPROPER MAINTENANCE OF THE PRE-TREATMENT UNIT (SEPTIC TANK) AND RELATED COMPONENTS MAY RESULT IN PLUGGING WITHIN THE DISTRIBUTION NETWORK. THE LIFE OF THE DISPOSAL SYSTEM CANNOT BE ESTIMATED DUE TO A VARIETY OF OPERATIONAL AND ENVIRONMENTAL FACTORS. INTRODUCTION OF MATERIAL OTHER THAN HUMAN WASTES (USE OF NON-BIODEGRADABLE DETERGENTS, CHEMICALS AND USE OF GARBAGE DISPOSALS), EXCESSIVE SEWAGE FLOWS, OR RAINFALL WILL ADVERSELY AFFECT THE OPERATION OF THE DISPOSAL SYSTEM. SOIL SETTLEMENT, FREEZING OF COMPONENTS AND CLOGGING DUE TO ORGANIC SOLIDS ACCUMULATION WILL REQUIRE REPAIRS. USE OF A GARBAGE DISPOSAL IS PROHIBITED UNLESS SPECIFIED OTHERWISE.
4. THE TECHNICIAN ASSUMES NO RESPONSIBILITY FOR THE CONTINUED PROPER USE AND MAINTENANCE OF THE SYSTEM.

"APPROVED"
Department
of
Environmental Conservation
Approved By: Patrick J. Vaughan
Permit # WW-9-0682
Date: 12/28/04

REVISIONS	BY

TYLER HART, P.E., L.S.
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(802) 434-3217

7 LOT SUBDIVISION

BRUCE LADEAU AND JEANIE MACDONOUGH

STATE OF VERMONT — JAMES TYLER HART — 3072 — REGISTERED PROFESSIONAL ENGINEER

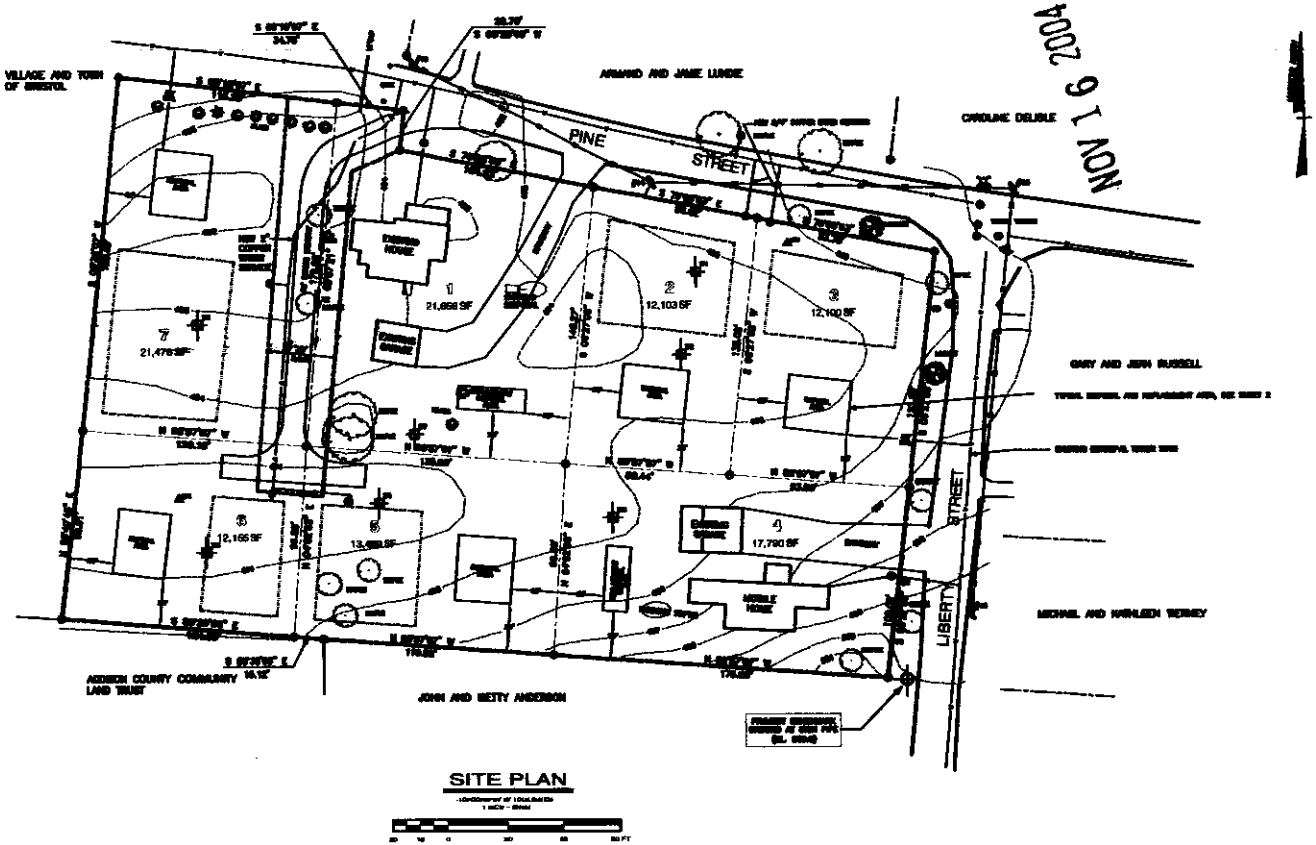
Hammond Property

Pine Street/Liberty Street

Bristol - Vermont

WW-9-0682

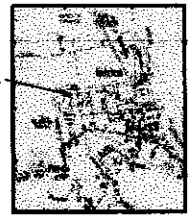
DRAWN	TH
CHECKED	TH
DATE	11/04
SCALE	NOTED
JOB NO.	04-13
SHEET	2



SITE PLAN

TOTAL AREA = 2.54 ACRES

NOV 16 2004



LOCUS

LEGEND

WW-9-0682

7-LOT SUBDIVISION

BRUCE LADEAU AND JEANIE MACDONOUGH

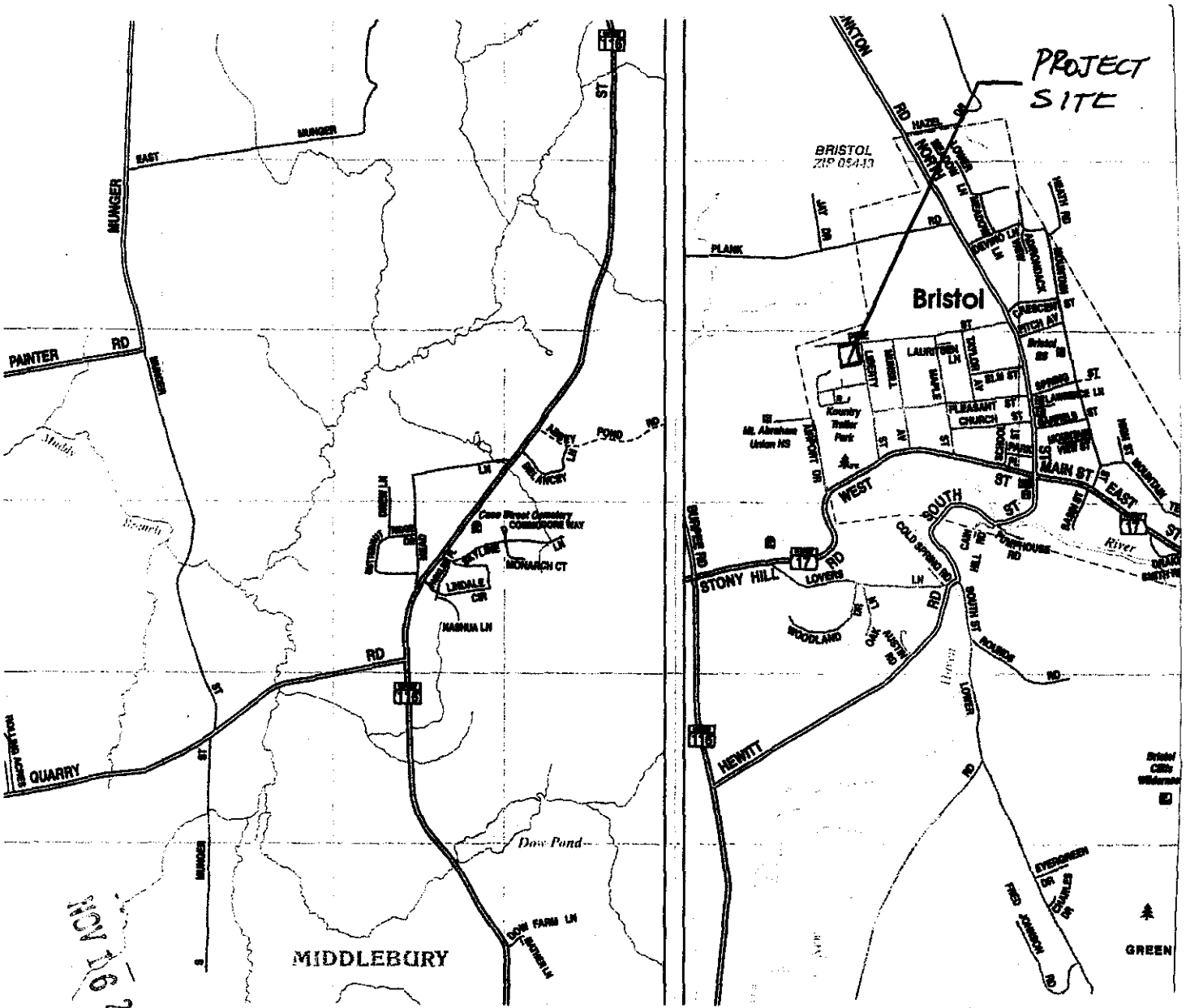
Hammond Property

Pine Street/Liberty Street

Bristol - Vermont

1

E890-6-MM



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