

**PROPOSED SITE PLAN
OF LAND AT
23 SOUTH RIVER STREET
HAVERHILL, MASSACHUSETTS**

AUGUST 23, 2016

**APPLICANT:
DANA FIELDS
23 SO. RIVER ST.
HAVERHILL, MA. 01830**

RECEIVED

SEP 01 2016

Conservation
Department

ASSESSOR'S PLAN
BLOCK
LOT
AREA
DEED BOOK 34143
ZONE

701
630
160
0.123 AC.
PAGE 573
IG

GENERAL NOTES:

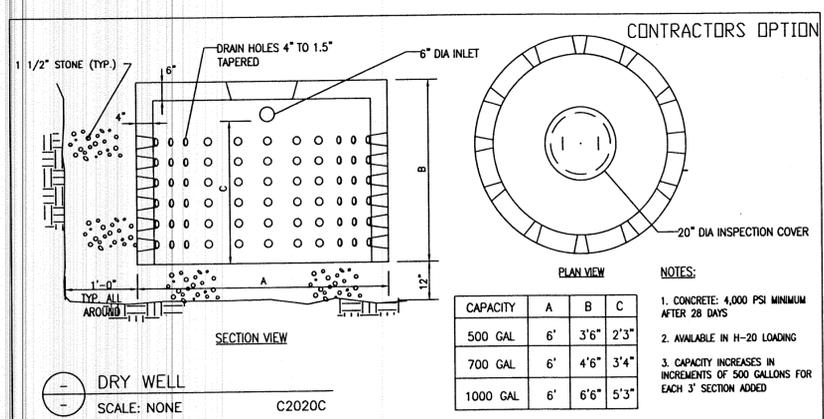
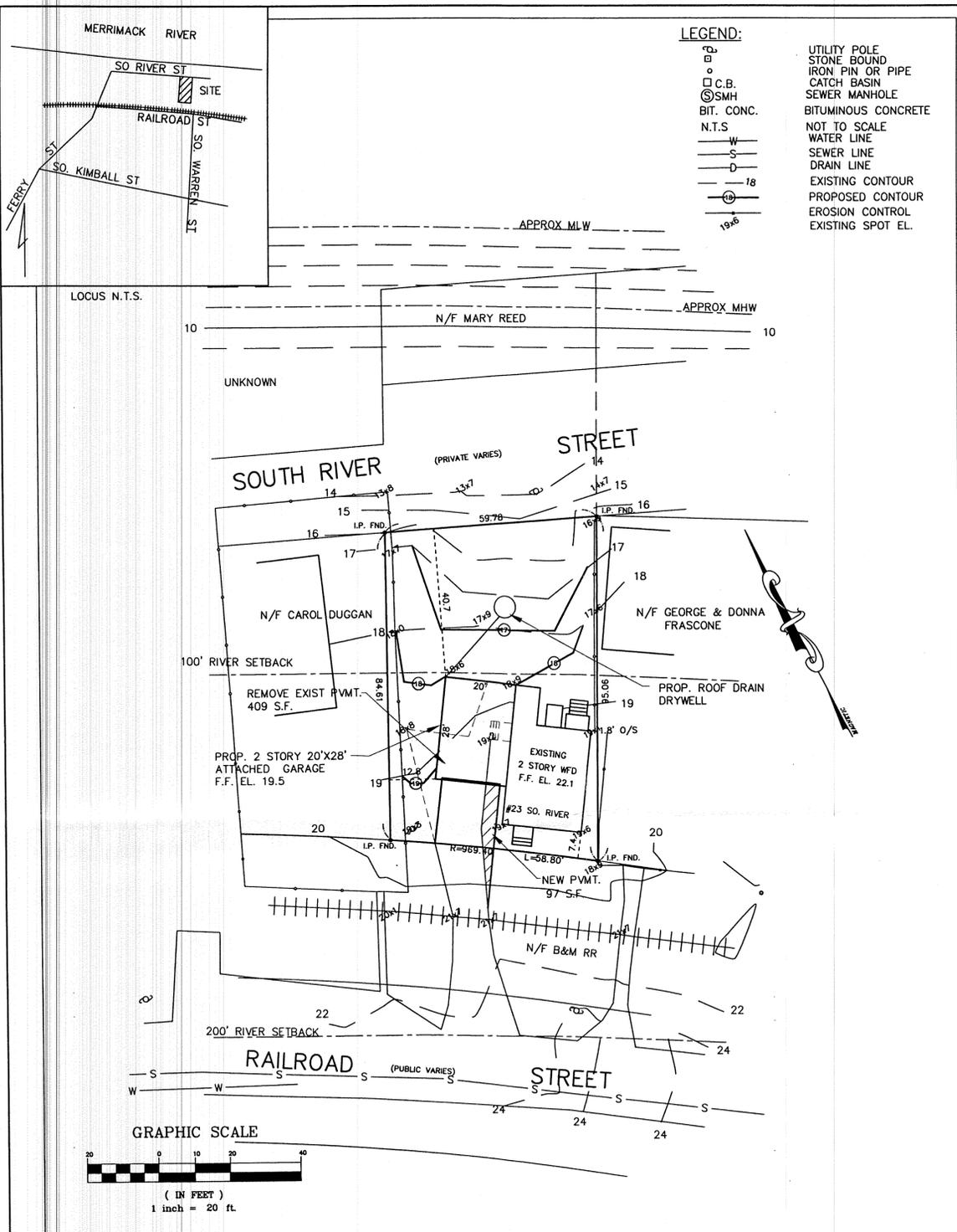
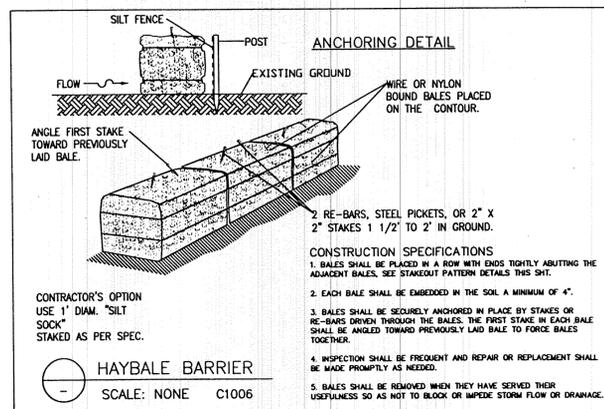
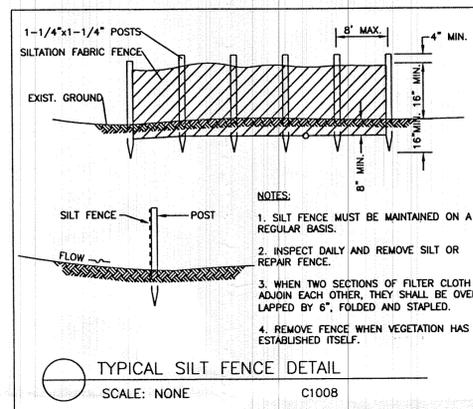
- Boundary information based upon deeds and field monumentation. Topographic and additional information was compiled from onsite survey performed by RAM Engineering, Haverhill, MA.
- The Contractor shall be responsible for verifying and determining the location, size and elevation of all existing utilities, shown or not shown on these plans prior to the start of any construction. The engineer shall be notified in writing of any utilities found interfering with the proposed construction and appropriate remedial action shall be agreed to by the Engineer before proceeding with the work. The Contractor shall be responsible to contact "DIGSAFE" (888) 344-7233 at least 72 hours before digging.
- The contractor shall contact all utility companies owning utilities, either overhead or underground, within the construction area and shall coordinate with the utility companies. The protection or relocation of utilities is the responsibility of the contractor.
- The contractor is responsible for the means and methods of construction and for conditions of the site. These plans prepared by RAM Engineering, do not extend to or include systems pertaining to the safety of the Construction Contractor or the Employees, Agents of Representatives in performance of the work. The seal of the architect or engineer hereon does not extend to any such safety systems that may now or hereafter be incorporated into these plans. The Construction Contractor shall prepare or obtain the appropriate safety systems that may be required by the US Occupational Safety and Health Administration (OSHA) and/or local regulations.
- This project is to be constructed to the typical sections and details shown on the plans, and shall meet the standards of the City of Haverhill and the requirements of the latest Massachusetts Standard Specification for Highway and Bridges unless otherwise noted.
- The Contractor is responsible of all permits, fees, temporary utilities and coordination with all agencies in obtaining access to the site and performing all work required for this project.
- All disturbed areas not otherwise shown to be treated shall be loamed and seeded to a depth of six inches.
- The contractor shall coordinate any necessary frontage tree removal with the City of Haverhill Highway Department and Tree Warden prior to driveway and utility service construction.
- Contractor shall protect and maintain existing benchmarks and bounds. All benchmarks and bounds disturbed by the Contractor shall be re-established by a Massachusetts registered land surveyor at no expense to the Owner.
- Water mains shall have a minimum of 5.5 feet cover. Where water mains cross sewer lines a minimum of 18" vertical separation between the outside pipe walls shall be observed. Horizontal separation between water and sewer lines shall be 10 feet minimum.
- All proposed grades shall be less than 2 to 1.
- Vertical datum based upon NVD 88.

LEGEND:

- UTILITY POLE
 - STONE BOUND
 - IRON PIN OR PIPE
 - C.B.
 - SMH
 - BIT. CONC.
 - N.T.S.
 - W
 - S
 - D
 - 18
 - 19.8
- UTILITY POLE
STONE BOUND
IRON PIN OR PIPE
CATCH BASIN
SEWER MANHOLE
BITUMINOUS CONCRETE
NOT TO SCALE
WATER LINE
SEWER LINE
DRAIN LINE
EXISTING CONTOUR
PROPOSED CONTOUR
EROSION CONTROL
EXISTING SPOT EL.

TYPICAL SECTIONS OF SURFACE TREATMENTS

SECTION REFERENCE	DESCRIPTION	SECTION
1	NEW DRIVEWAY PAVEMENT	2 1/2" BIT. CONC. PAVEMENT 1" WEARING COURSE 1-1/2" BRIDGER COURSE 6" GRAVEL BASE COMPACTED SUBGRADE
2	LOAMING AND SEEDING	6" PREPARED LOAM WITH SEED COMPACTED SUBGRADE



VOLUME TO BE OCCUPIED

ELEVATION	VOLUME
18 - 19	2.07 CU. YD.
19 - 20	9.74 CU. YD.
20 - 21	1.82 CU. YD.
21 - 21.7	0.64 CU. YD.
TOTAL	14.27 CU. YD.

VOLUME TO BE EXCAVATED

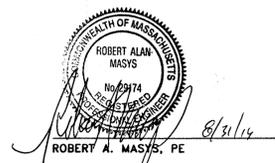
ELEVATION	VOLUME
17 - 18	9.63 CU. YD.
18 - 19	8.66 CU. YD.
TOTAL	18.29 CU. YD.

ROOF RUNOFF CALCULATIONS

ROOF AREA = 560 S.F.
560 X 1/2" RAIN = 22.4 C.F.
22.4 C.F. X 7.48 GAL/C.F. = 168 GAL.
USE 500 GAL. DRYWELL

COVERAGE

EXISTING PAVEMENT AND HOUSE 1,521 S.F.
PROPOSED PAVEMENT AND HOUSE 1,576 S.F.



R.A.M. ENGINEERING
160 Main Street
Haverhill, Massachusetts 01830
TEL: (978) 372-0449 FAX: (978) 372-7183