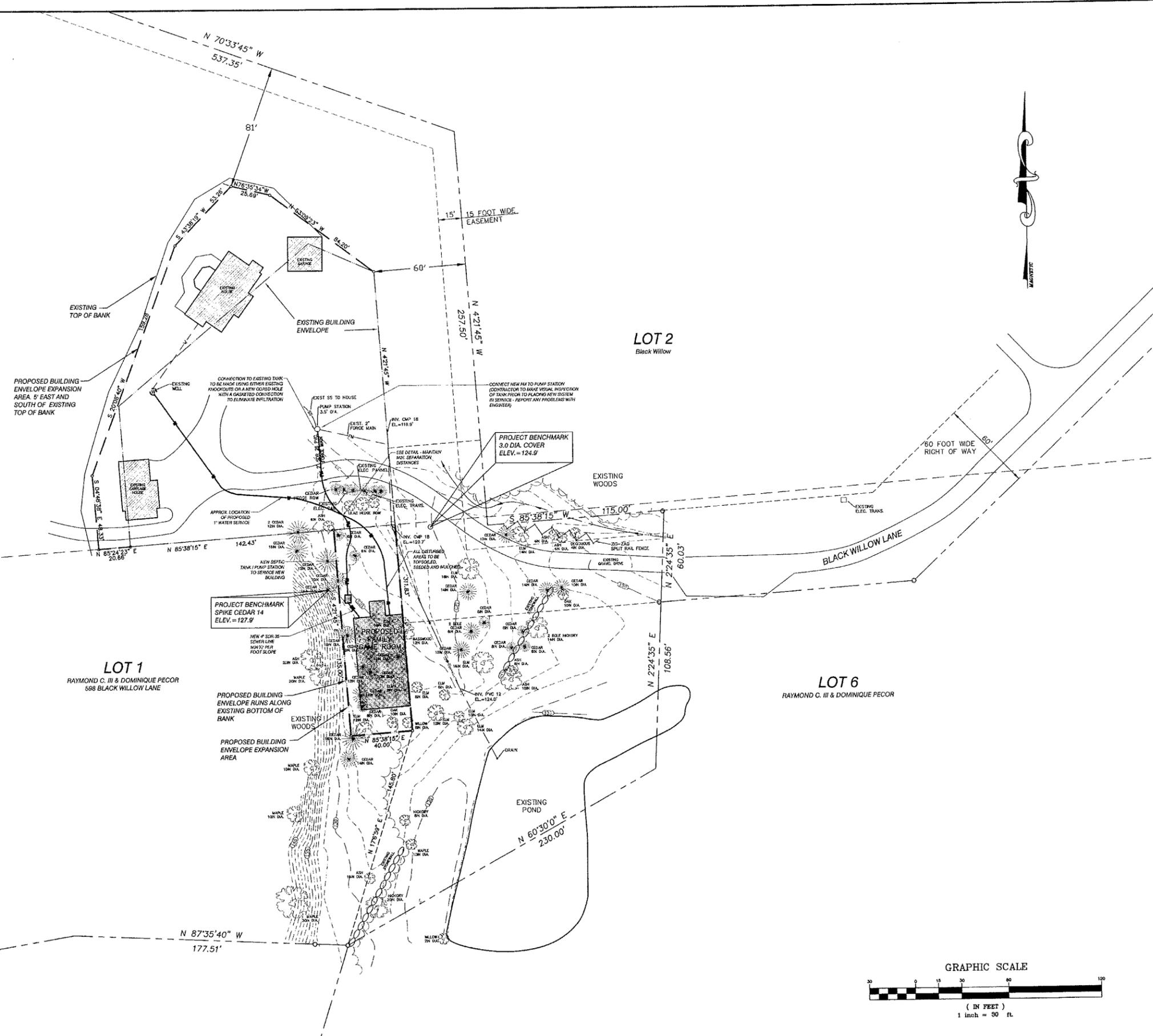


LEGEND

- 1:36 --- EXISTING CONTOUR
- --- APPROXIMATE PROPERTY LINE
- --- TIE LINE
- --- EXISTING SETBACK LINE
- --- PROPOSED SETBACK LINE
- IRON ROD/PIPE FOUND
- CALCULATED POINT
- UE --- UNDERGROUND ELECTRIC
- ST --- STORM DRAINAGE LINE
- ⊙ SEWER MANHOLE
- ⊙ DECIDUOUS TREE
- ⊙ CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- FENCE
- DRAINAGE SWALE



NOTES

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall field verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (888-344-7233) prior to any construction.
2. Project benchmark is an assumed elevation of 130.0' based on USGS Quad Willsboro, NY-VT 1999.
3. This plan is not a boundary survey and is not intended to be used as one.
4. Property line information was abstracted from the Town of Charlotte Land Records and is based on Plat entitled "BLACK WILLOW III - WEST", pertinent deeds and plans of record. Monumentation recovered was consistent with the recorded documents.

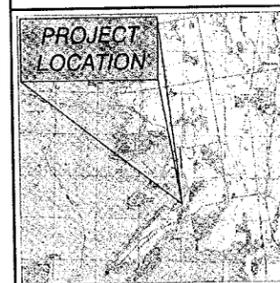
SITE ENGINEER:

 CIVIL ENGINEERING ASSOCIATES, INC.
 10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
 802-864-2723 FAX: 802-864-2271 web: www.cca-vt.com
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DRAWN
 JLM/GAC
 CHECKED
 JLM
 APPROVED
 XXX

OWNER:
RAYMOND C. III & DOMINIQUE PECOR
 598 BLACK WILLOW LANE
 CHARLOTTE VERMONT

PROJECT:
PROPOSED FAMILY GAME ROOM AND BUILDING ENVELOPE MODIFICATION
 598 BLACK WILLOW LANE
 CHARLOTTE VERMONT



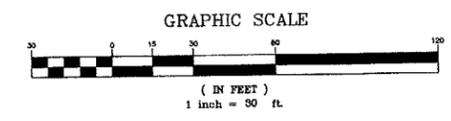
LOCATION MAP
 1" = 2000'

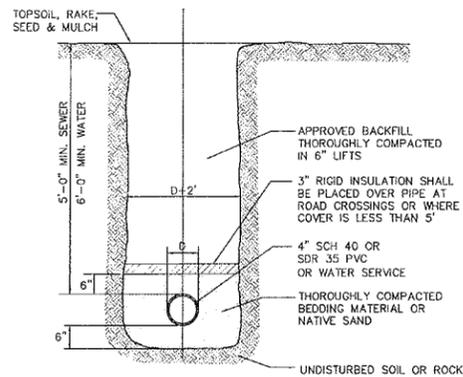
DATE	CHECKED	REVISION
7/12	JLM	Revised per Tom Marzetti's Comments 7/10/12.
9/12	JLM	Revised Building Envelope per request of Charlotte Civil
2/13	CJG	Permit Plans

EXISTING CONDITIONS SITE PLAN

DATE
 FEB. 28, 2012
 SCALE
 1" = 30'
 PROJ. NO.
 12127

DRAWING NUMBER
C1

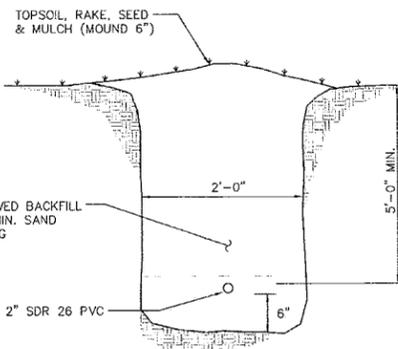




TYPICAL TRENCH DETAIL
N.T.S.

NOTES:

1. Compaction of backfill and bedding shall be a minimum of 90% (95% under roadway surfaces) of maximum dry density determined in the standard proctor test (ASTM D698).
2. Bedding material shall consist of crushed stone, gravel or sand with a maximum size of 3/4". Submit a sample to the Engineer for approval.
3. In trenches with unstable materials, trench bottom shall first be stabilized by placement of filter fabric then crushed stone (3/4" maximum).
4. Where 5 ft. of cover cannot be maintained the sewer pipe shall be protected against freezing by installation of a minimum of 3 inch thick styfoam insulating sheets.
5. Approved backfill shall not contain any stones more than 12" in largest dimension (6" in roadways, 2" maximum diameter within 2' of the outside of the pipe), or contain any frozen, wet, or organic material.
6. Use 3 inch styfoam sheets at all road crossings or areas that are to be plowed during the winter.
7. The sides of trenches 4' or more in depth entered by personnel shall be sheeted or sloped to the angle of repose as defined by O.S.H.A. standards.



FM TRENCH SECTION
N.T.S.

FORCE MAINS INSTALLATION

PART 1 - GENERAL

1.01 Summary

- A. Section Includes:
2. Force Main Materials

1.02 References

- A. All work shall be done in accordance with the State of Vermont Environmental Protection Rules.

PART 2 - PRODUCTS

2.01 General

- A. Force Mains: PVC pipe shall conform in all respects to the latest revisions of ASTM Specifications D-2241. All pipe fittings shall be SDR 26 (or SCH 40) clearly marked as follows:
- Manufacturer's Name and Trademark
 - Nominal Pipe Size (as shown on plans)
 - Material Designation
- Joints shall be push-on type using elastomeric gaskets factory installed conforming to ASTM Specification D-3212.

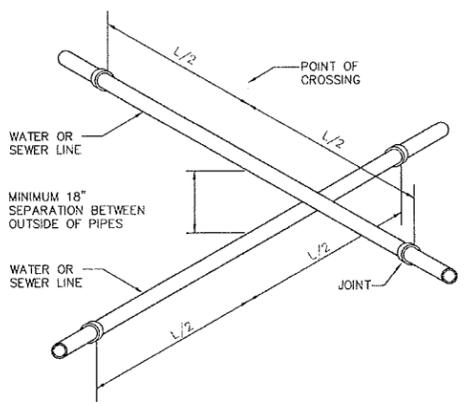
PART 3 - EXECUTION

3.07 PRESSURE PIPE TESTING

- A. General: The proposed force main shall pass the hydrostatic pressure test and leakage test described herein. Prior to testing, all anchors and braces shall be installed. All concrete thrust blocks and restraints shall be in place and cured at least seven days. All buried pipe shall be backfilled. Suitable test plugs shall be installed and air release valves shall be installed at the high points.
- B. Hydrostatic Test: The following procedure shall be used:
1. All air release valves shall be opened and the pipe shall be filled with water at a rate not to exceed the venting capacity of the air release valves.
 2. The water pressure shall be raised to 150 percent of the designed operating pressure or 60 psi minimum at the highest point.
 3. Failure to hold the designated pressure within 5 psi of the specified test pressure for the two hour period constitutes a failure of the section tested.
- C. Leakage Test: The following procedure shall be used:
1. Leakage shall be defined as the quantity of water that must be supplied into the pipe being tested to maintain pressure within 5 psi of the specified test pressure.
 2. No pipe installation shall be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND(P)0.5}{7,400}$$

$$L = \frac{SD(P)0.5}{133,100}$$
 Whichever is less
 S = Length of Pipe Testing
 L = Allowable Leakage in Gal/Hr
 D = Nominal Diameter of Pipe (")
 P = Average Test Pressure (psi)
 N = Number of Joints in the Pipeline Tested
 All testing shall be conducted in accordance with AWWA C600-B7 or latest revision.
 3. Failure to hold the designated pressure within 5 psi of the specified test pressure for the two hour period constitutes a failure of the section tested.
- D. Prior to use of the system, the qualified consultant shall submit a written report to the Town of Shelburne stating that the system has been installed according to the approved plans and permit.

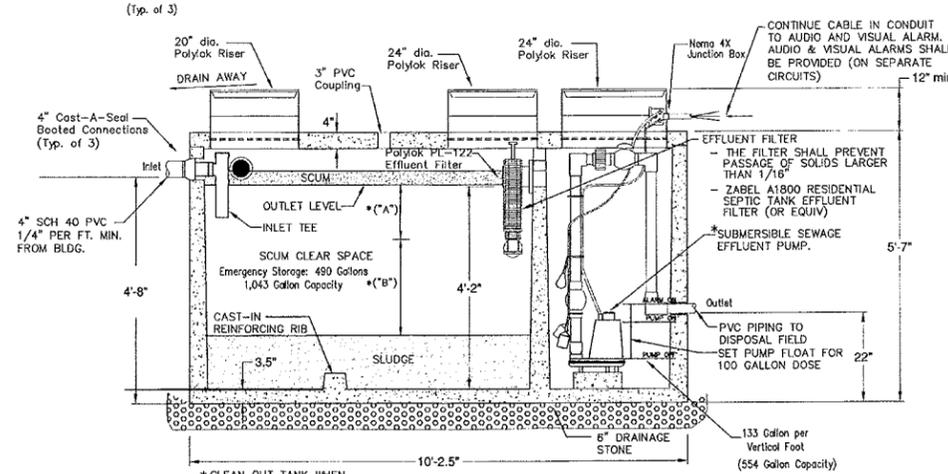
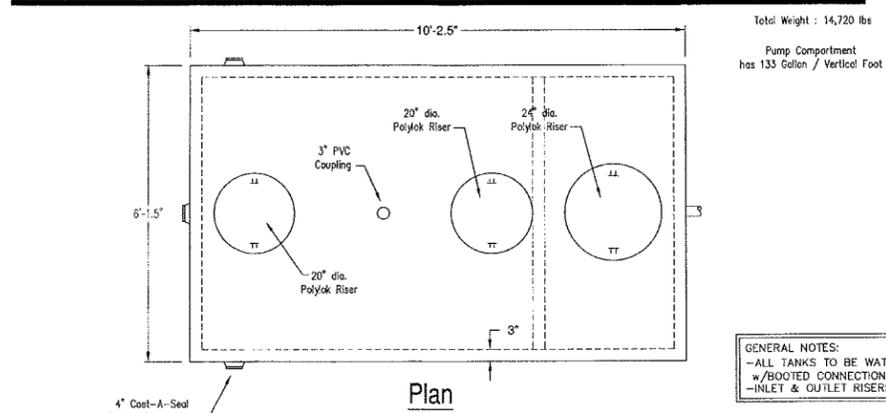


NOTES:

1. AT CROSSINGS, ONE FULL LENGTH OF WATER/SEWER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER/SEWER AS POSSIBLE.
2. IF THE SEWER MAIN IS OVER THE WATER MAIN, THE FIRST SEWER PIPE JOINTS ON EACH SIDE OF THE WATER MAIN MUST BE CONCRETE ENCASED, SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.
3. WHERE IT IS IMPOSSIBLE TO MAINTAIN THE 18" SEPARATION, THE SEWER MATERIALS SHALL BE WATER MAIN PIPE OR EQUIVALENT AND SHALL BE PRESSURE TESTED TO WATER MAIN STANDARDS.
4. WATER MAINS AND SEWER LINES OR MANHOLES SHALL HAVE AT LEAST 10' HORIZONTAL SEPARATION. THIS DISTANCE SHALL BE MEASURED EDGE TO EDGE.

WATER/SEWER CROSSING DETAIL
N.T.S.

Precast Pumpstation
1500 Gallon Simplified STEP



- SPECIFICATIONS:**
- Concrete Minimum Strength 5000psi @ 28 days
 - Steel Reinforcement Grade 60
 - 4" Cast-A-Seal Booted Connections
 - Top Seam Construction
 - Weights Subject to Variation

CAMP Precast Concrete Products www.CAMPRECAST.com (OR EQUIVELANT)

Total Weight : 14,720 lbs
Pump Compartment has 133 Gallon / Vertical Foot

GENERAL NOTES:
-ALL TANKS TO BE WATER-PROOF w/BOOTED CONNECTIONS
-INLET & OUTLET RISERS REQUIRED

*VERIFY PUMP REQUIREMENTS WITH THE ENGINEER IF FINAL SITE SELECTED IS OTHER THAN SHOWN ON PLAN

SEPTIC TANK VOLUME

$$V = \frac{10' \times 5' \times (32' / 12)}{0.1337} = \pm 1000 \text{ GALLONS}$$

EMERGENCY STORAGE

$$S = \frac{10' \times 5' \times 9'}{0.1337} = \pm 280 \text{ GALLONS}$$

* IT IS THE OWNERS OPTION TO SUBSTITUTE THE 1500 GAL. SEPTIC TANK / PUMPING STATION WITH A 1000 GAL. SEPTIC TANK AND A 1000 GAL. PUMPING STATION.

DESIGN DATA

Pump Requirements:
(2" Force Main) - Cleansing Velocity = 2.5 fps
Discharge Rate = 25 gpm

-Friction Loss 5'
-Elevation Head 5'
TOTAL DYNAMIC HEAD 10'

ALL NEW WASTEWATER INSTALLATION / CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION - ENVIRONMENTAL PROTECTION RULES

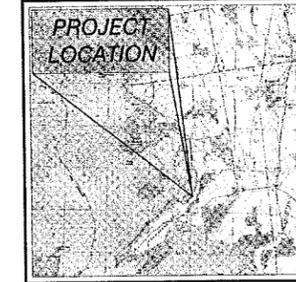
SITE ENGINEER:

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CHECKED: CJG
APPROVED: SAV

OWNER:
RAYMOND C. III & DOMINIQUE PECOR
598 BLACK WILLOW LANE
CHARLOTTE VERMONT

PROJECT:
PROPOSED FAMILY GAME ROOM AND BUILDING ENVELOPE MODIFICATION
598 BLACK WILLOW LANE
CHARLOTTE VERMONT



LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
7/12	JLM	Revised per Tom Mansfield's Comments 7/10/12.
9/12	JLM	Revised Bidding Knowledge per request of Charles King.
2/13	CJG	Permit Plans

DETAILS

DATE: SEPT. 25, 2012
SCALE: AS SHOWN
PROJ. NO. 12127
DRAWING NUMBER: **C2**