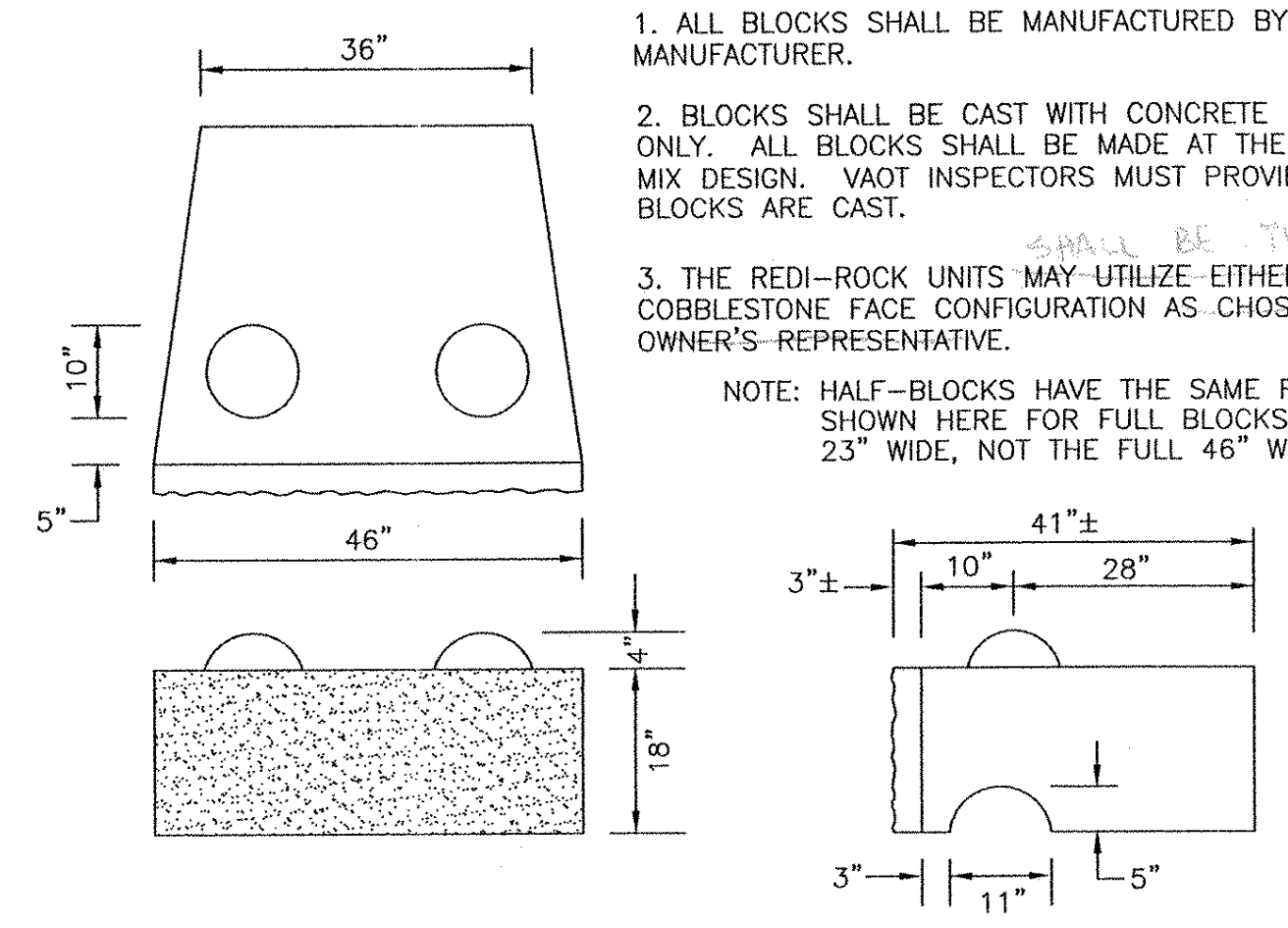


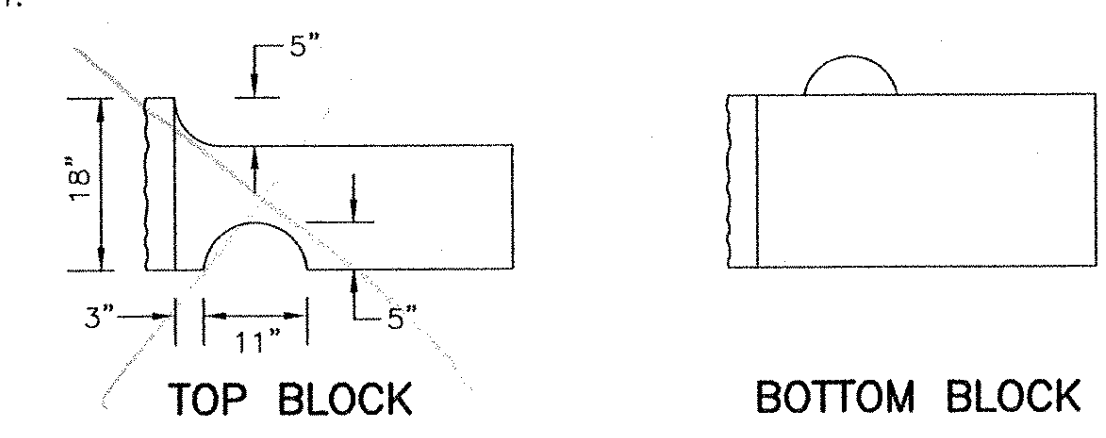
**TYPICAL SECTION - REDI ROCK WALL - GRAVITY WALL SECTIONS**  
 (TYPICAL DETAIL ONLY - SEE WALL FACE DRAWING FOR SPECIFIC BLOCK CONFIGURATIONS)  
 "REDIROCK" SEGMENTAL RETAINING WALL (NOT TO SCALE)

**GENERAL NOTES:**

1. STRIP ALL VEGETATION, ORGANIC SOILS AND UNSUITABLE FILL SOILS FROM THE WALL ALIGNMENT AREA.
2. BENCH CUT ALL EXCAVATED SLOPES.
3. DO NOT OVER EXCAVATE UNLESS DIRECTED TO DO SO BY THE OWNER'S SITE REPRESENTATIVE IN ORDER TO REMOVE UNSUITABLE SOIL.
4. THE OWNER'S SITE REPRESENTATIVE SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS.
5. LEVELING PAD SHALL CONSIST OF COMPACTED, 3/4" CRUSHED GRAVEL, 12" THICK AND EXTENDING AT LEAST 12" TO EITHER SIDE OF THE BASE BLOCK. A SMOOTHING SURFACE LAYER OF 3/8" CRUSHED STONE MAY BE UTILIZED.
6. MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE AS INDICATED ON THE WALL FACE DRAWING.
7. FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS, ESPECIALLY WITH REGARDS TO LEVELING OF BLOCKS AND BASE.
8. DRAINAGE FILL SHALL CONSIST OF 3/4" TO 3/8" SIZE CRUSHED STONE, LESS THAN 5% MINUS #200 SIEVE, PLACED BEHIND THE WALL FOR A DEPTH OF AT LEAST 12" BEHIND THE WALL. A FILTER FABRIC SHALL BE PLACED OVER THE CUT OR FILL FACE BEHIND THE WALL AREA TO PREVENT SOIL MIGRATION INTO THE DRAINAGE MATERIAL. 3/4" CONCRETE AGGREGATE IS AN ACCEPTABLE MATERIAL FOR THIS USE.
9. WHERE PERFORATED HDPE DRAINS ARE USED, PROVIDE OUTLETS AT THE ENDS OF THE WALL OR AT A LOW COLLECTION POINT ALONG THE WALL. (ALTERNATE OUTLET METHODS MAY BE APPROVED BY THE DESIGN ENGINEER.) *NOT REQUIRED*
10. BACKFILL AND COMPACT THE FILL MATERIAL BEHIND THE WALL AS THE WALL IS INSTALLED.
11. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE OWNER'S SITE REPRESENTATIVE.
12. PLACE A FILTER FABRIC (MIRAFI 140N, OR EQUAL) OVER THE DRAINAGE MATERIAL TO MINIMIZE SOIL MIGRATION FROM THE SURFACE MATERIAL INTO THE DRAINAGE MATERIAL.
13. COMPACTION SHALL BE TO 92% (MODIFIED PROCTOR) OR 95% (STANDARD PROCTOR).
14. PROVIDE LATERAL DRAINAGE SWALES TO DIRECT FLOWS AROUND THE ENDS OF THE WALL AND AWAY FROM THE WALL DURING CONSTRUCTION. DO NOT CONSTRUCT A SWALE BEHIND THE WALL AS PART OF THE FINISHED WALL. GRADE ABOVE THE WALL SO THAT WATER FLOWS OVER THE WALL FACE OR TO A POINT AT LEAST AS FAR BEHIND THE WALL AS THE WALL HEIGHT.
15. TURF, OR SOME ACCEPTABLE FORM OF SOIL EROSION PROTECTION, SHOULD BE ESTABLISHED AT THE TOP OF THE WALL (WHERE REQUIRED) BY THE LANDSCAPE CONTRACTOR AS SOON AS THE WALL IS COMPLETED.
16. FINAL WALL ALIGNMENT SHALL BE LOCATED IN THE FIELD BY THE OWNER'S SITE REPRESENTATIVE.
17. RECOMMENDED COMPACTION EQUIPMENT WITHIN 15 FEET OF THE BACK OF THE WALL IS AS FOLLOWS:  
 0 - 4 FEET HAND TAMP OR VIBRATORY PLATE COMPACTOR  
 4 - 15 FEET NOTHING LARGER THAN TWO-DRUM, WALK-BEHIND VIBRATORY ROLLER (LARGER ROLLERS CAN BE USED STATICALLY, PROVIDED LIFT SIZE DOES NOT COMPROMISE ACHIEVEMENT OF NECESSARY COMPACTION RATES.)
18. THESE WALLS HAVE BEEN DESIGNED WITH CONSIDERATION OF SEISMIC LOADINGS.



**TYPICAL UNIT-MIDDLE BLOCK**  
 UNIT DIMENSIONS (NOT TO SCALE)



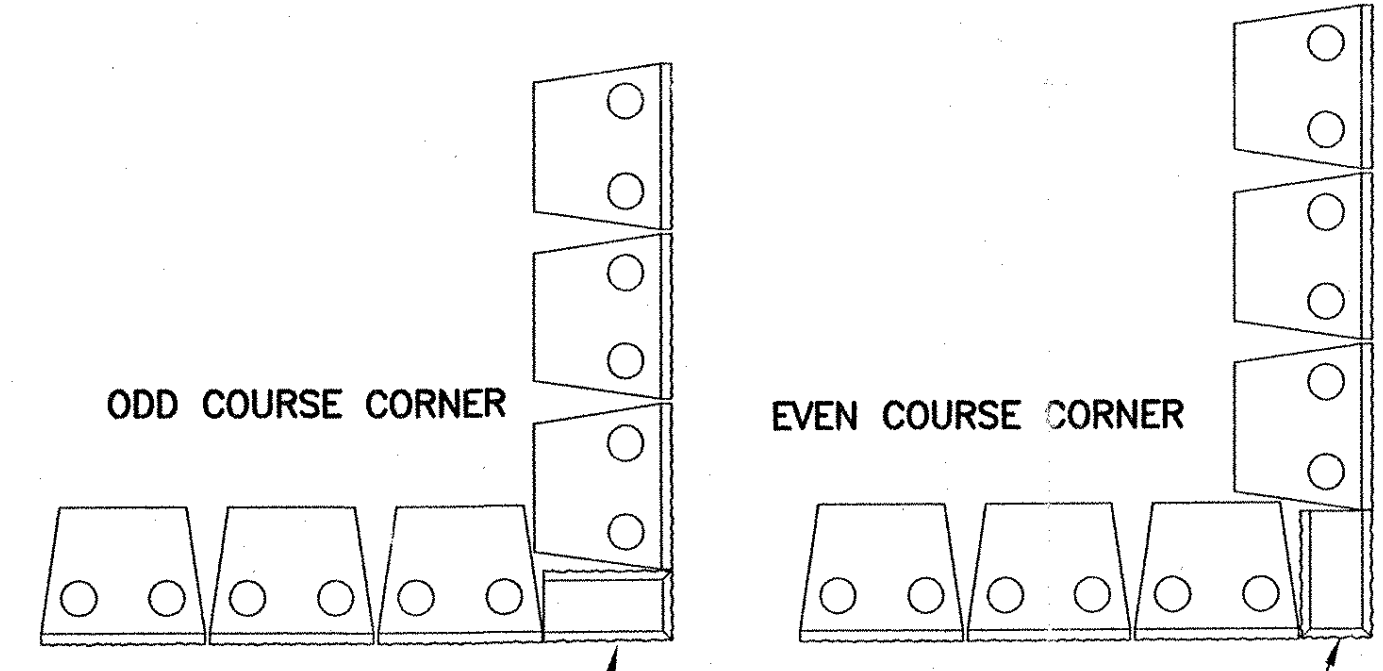
**TOP BLOCK**      **BOTTOM BLOCK**

*DO NOT USE AS TOP BLOCK (WALL FLOWING IS CONSTANT WHILE FINISH GRADE IS CHANGING)*  
*SHOW NEW TOP BLOCK DETAIL (FRONT STANDING BLOCK)*

- BLOCK SPECIFICATION NOTES:**
1. ALL BLOCKS SHALL BE MANUFACTURED BY A LICENSED REDI-ROCK (TM) MANUFACTURER.
  2. BLOCKS SHALL BE CAST WITH CONCRETE MEETING HPC-B REQUIREMENTS ONLY. ALL BLOCKS SHALL BE MADE AT THE SAME PLANT WITH THE SAME MIX DESIGN. VAOT INSPECTORS MUST PROVIDE OVERSIGHT WHEN THE BLOCKS ARE CAST.
  3. THE REDI-ROCK UNITS SHALL BE THE SPLIT Limestone OR COBBLESTONE FACE CONFIGURATION AS CHOSEN BY THE OWNER OR OWNER'S REPRESENTATIVE.
- NOTE: HALF-BLOCKS HAVE THE SAME FEATURES AS SHOWN HERE FOR FULL BLOCKS BUT THEY ARE 23" WIDE, NOT THE FULL 46" WIDE.

IF CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.

**COMPACTION NOTE:** WHERE THE RETAINING WALL PASSES OVER ANY UTILITY LINES, COMPACTION OF THE SOIL WITHIN THE UTILITY TRENCH IS CRITICAL IN ORDER TO PREVENT SETTLEMENT OF THE WALL. COMPACTION OF ALL FILL MATERIAL IN UTILITY TRENCHES WHICH PASS UNDER THIS RETAINING WALL MUST BE AT LEAST 95% OF THE MAXIMUM DENSITY OF THE FILL MATERIAL.



**TYPICAL CORNER INSTALLATION**  
 (NOT TO SCALE)

RECEIVED  
 JUN 19 2007  
 APPROVED  
 DATE 6/20/07

**IMPERVIOUS MATERIAL GENERAL REQUIREMENTS**

SIEVE SIZE	% PASSING
3"	100%
#4	80-100%
#40	50-90%
#100	40-80%
#200	30-80%

8" OF TOPSOIL IS AN ACCEPTABLE ALTERNATE FOR IMPERVIOUS FILL ALONG THE TOP OF THE WALL.

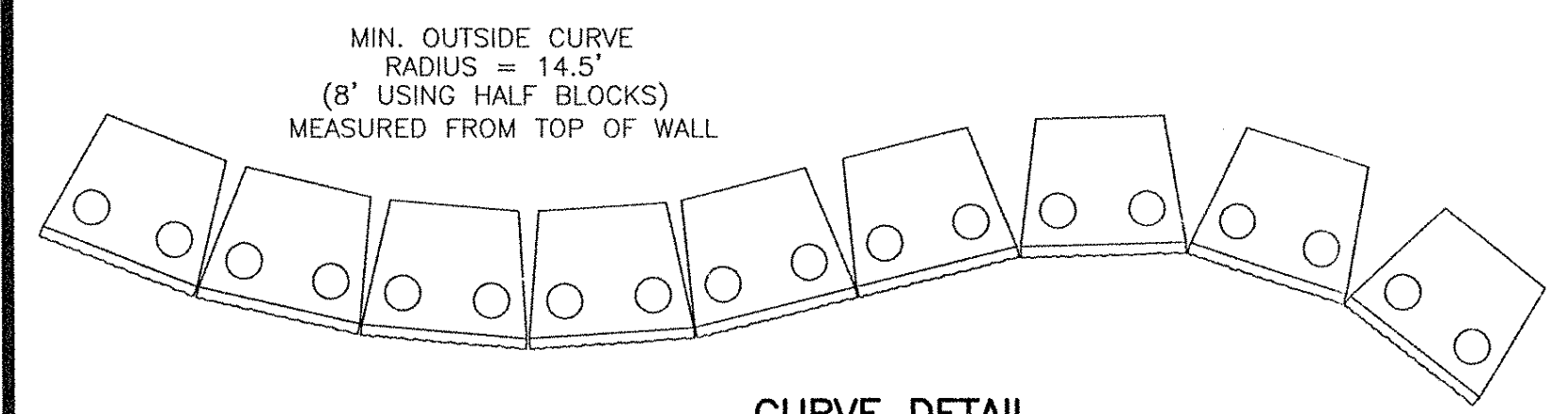
**DESIGN ASSUMPTIONS**

SOIL	SOIL UNIT WEIGHT	φ
SELECT FILL/BACKFILL	140	34
RETAINED EARTH	140	34
FOUNDATION SOIL	120	30

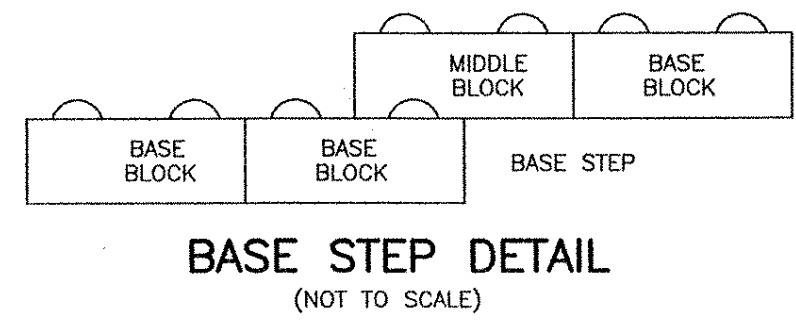
APPLIED SURCHARGE LOADING: NONE  
 SEISMIC ACCELERATION = 0.06

**MINIMUM FACTORS OF SAFETY**

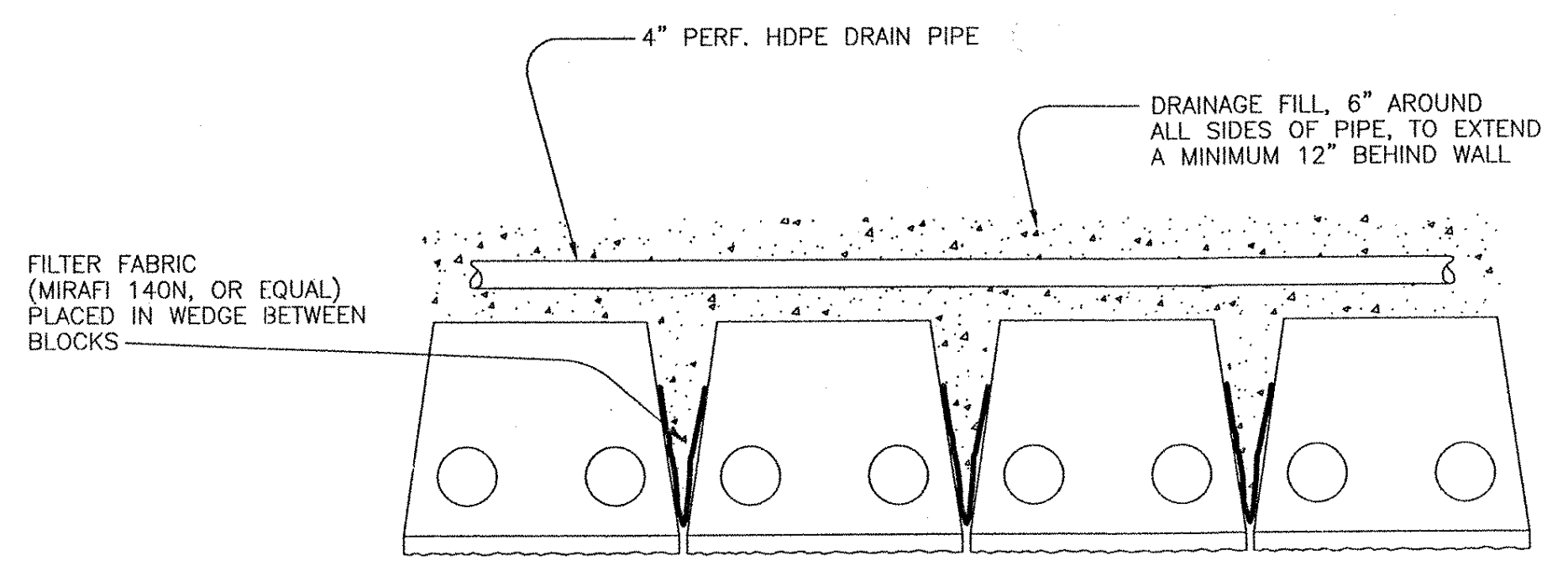
OVERTURNING	2.0
SLIDING	1.5
BEARING CAPACITY	2.5



**CURVE DETAIL**  
 TYPICAL CURVES (NOT TO SCALE)

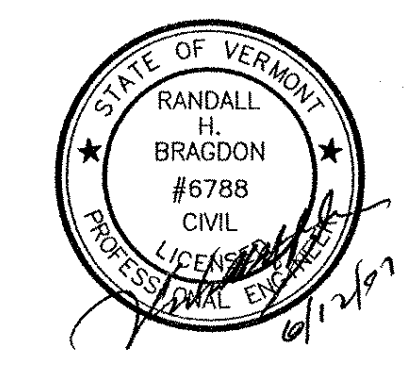


**BASE STEP DETAIL**  
 (NOT TO SCALE)



1. SLOPE DRAIN TO WALL ENDS, MIN. 1/8" PER FOOT, OR SLOPE TO LOW POINT AND DROP THE DRAIN UNDER THE WALL.
2. WALL DRAIN MAY TIE TO NEARBY CLOSED DRAINAGE SYSTEM, IF AVAILABLE.

**DRAIN & FABRIC DETAIL**  
 (NOT TO SCALE)



NOTE: THIS DRAWING WAS PREPARED FOR USE WITH REDI-ROCK (TM) RETAINING WALL SYSTEMS. CONTACT REDI-ROCK WALLS OF NEW ENGLAND AT (603) 863-1000

**SOUHEGAN VALLEY ENGINEERING, INC.**  
 CIVIL ENGINEERING CONSULTANTS      SITE DESIGN SPECIALISTS  
 434 LEAR HILL ROAD      NEWPORT (UNITY), NEW HAMPSHIRE 03773  
 TEL: (603) 863-5454      FAX: (603) 863-3629  
 Est. 1990      Available On The Web At www.SVEngineering.com

CLIENT: **REDI-ROCK WALLS OF NEW ENGLAND**  
 8 REEDS MILL ROAD, NEWPORT, NH 03773

PROJECT: **BARTON BRIDGE - BRO 1449 (29)**  
 BARTON, VT

SHEET TITLE: **RETAINING WALL DESIGN SHEET 1**

DATE: **JUNE 6, 2007**      SCALE: **AS SHOWN**      PROJECT No.: **07-332**

SHEET 1 OF 2

085 RW