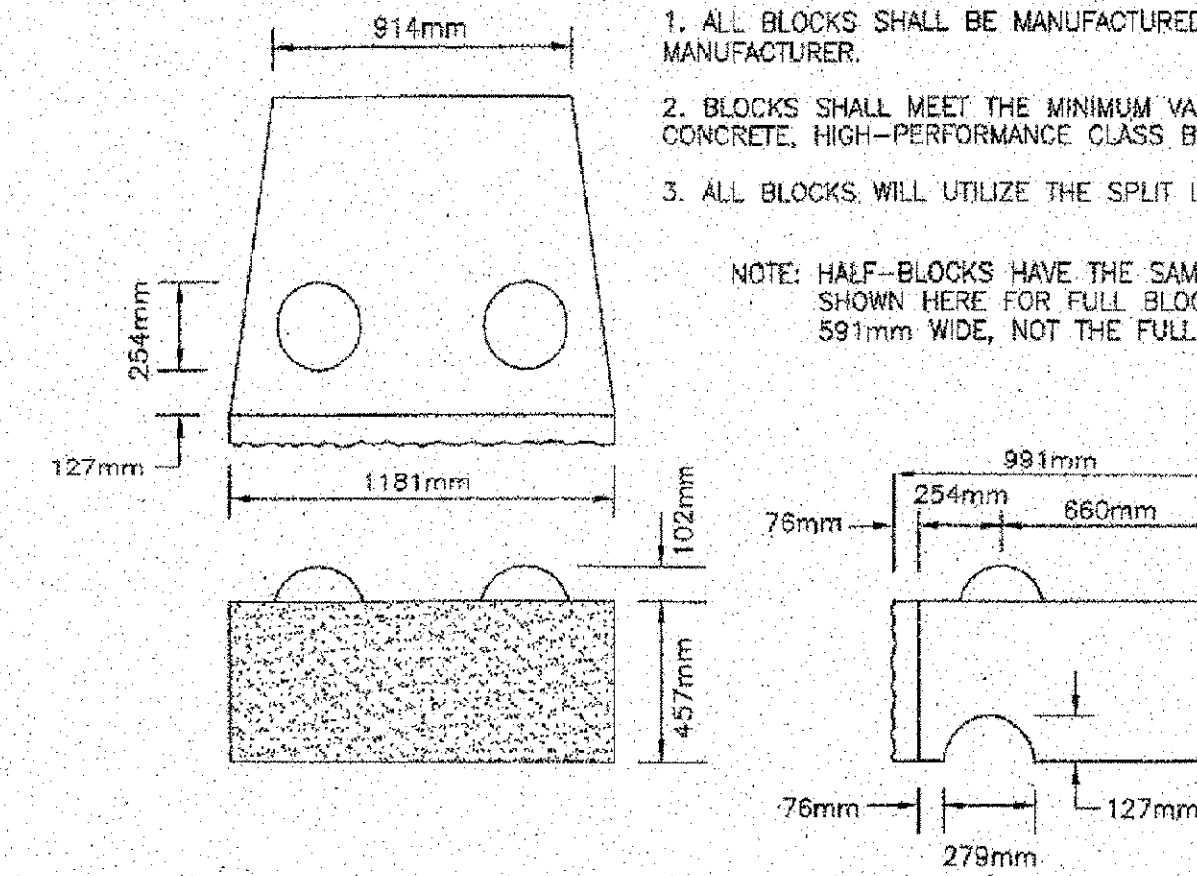


TYPICAL SECTION - REDI ROCK WALL - REINFORCED
(TYPICAL DETAIL ONLY - SEE WALL FACE DRAWING FOR SPECIFIC BLOCK CONFIGURATIONS)
 "REDIROCK" SEGMENTAL RETAINING WALL
 (NOT TO SCALE)

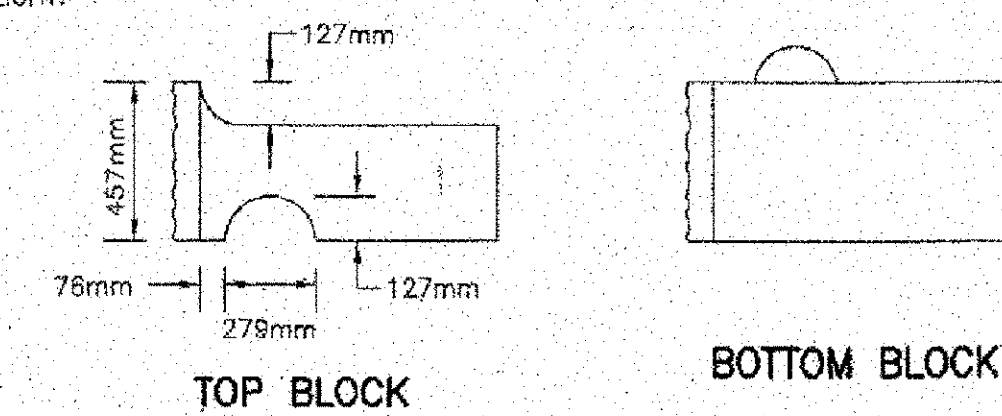
GENERAL NOTES:

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 CONTRACTOR SHALL REMOVE ANY UNSUITABLE MATERIAL AS DIRECTED BY THE SITE ENGINEER. THE OVEREXCAVATED MATERIAL SHALL BE REPLACED WITH SELECT GRANULAR BACKFILL.
5. LEVELING PAD SHALL CONSIST OF A REINFORCED CONCRETE PAD FOUNDED ON LEDGE. SEE VITRANS PLANS.
6. FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS, ESPECIALLY WITH REGARDS TO LEVELING OF BLOCKS AND BASE.
7. DRAINAGE FILL SHALL BE 19mm STONE MEETING THE REQUIREMENTS OF VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION SECTION 704.02 EXTENDING A MINIMUM 600mm (24") BEHIND THE WALL BLOCK. A NON-WOVEN GEOTEXTILE FABRIC MEETING THE REQUIREMENTS OF VAOT ITEM 649.41 SHALL BE USED TO SEPARATE THE DRAINAGE MATERIAL FROM THE REINFORCED BACKFILL MATERIAL AND ALSO TO SEPARATE THE REINFORCED MATERIAL FROM THE CUT OR FILL FACE OF THE EXCAVATION.
8. 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.)
9. BACKFILL AND COMPACT THE FILL MATERIAL BEHIND THE WALL AS THE WALL IS INSTALLED.
10. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE SITE ENGINEER.
11. PLACE A GEOTEXTILE FABRIC OVER THE DRAINAGE MATERIAL TO MINIMIZE SOIL MIGRATION FROM THE SURFACE MATERIAL INTO THE DRAINAGE MATERIAL.
12. 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.
13. 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.
14. FINAL WALL ALIGNMENT SHALL BE LOCATED IN THE FIELD.
15. RECOMMENDED COMPACTION EQUIPMENT WITHIN 4.5 METERS OF THE BACK OF THE WALL IS AS FOLLOWS:
 0 - 1.2 METERS HAND TAMP OR VIBRATORY PLATE COMPACTOR
 1.2 - 4.5 METERS 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.)
16. THESE WALLS HAVE BEEN DESIGNED WITH CONSIDERATION OF SEISMIC LOADINGS.



TYPICAL UNIT-MIDDLE BLOCK

UNIT DIMENSIONS
(NOT TO SCALE)



GEOTEXTILE FABRIC NOTE: A GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE REINFORCED FILL AND THE DRAINAGE MATERIAL FOR THE ENTIRE HEIGHT OF THE WALL.

SITE SPECIFIC NOTE: THE WALL HEIGHTS AT THIS SITE VARY AND ARE SHOWN ON THE WALL FACE DRAWING ON SHEET 2 OF 2. THE GEGRID SHALL BE SYNTEN PRODUCTS AS DETAILED ON THE WALL FACE DRAWING. THE CUT LENGTHS OF THE GEGRID LAYERS, AND THE PLACEMENT ELEVATIONS OF THE GEGRID LAYERS ARE SHOWN ON THE WALL FACE DRAWING. THE GEGRID SHALL PROVIDE 100% COVERAGE. THE CONTRACTOR SHOULD CONTACT THE DESIGN ENGINEER WITH ANY QUESTIONS.

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.

IMPERVIOUS MATERIAL GENERAL REQUIREMENTS

SIEVE SIZE	% PASSING
75 mm	100%
4.76 mm	80-100%
0.425 mm	50-90%
0.15 mm	40-80%
.075 mm	30-80%

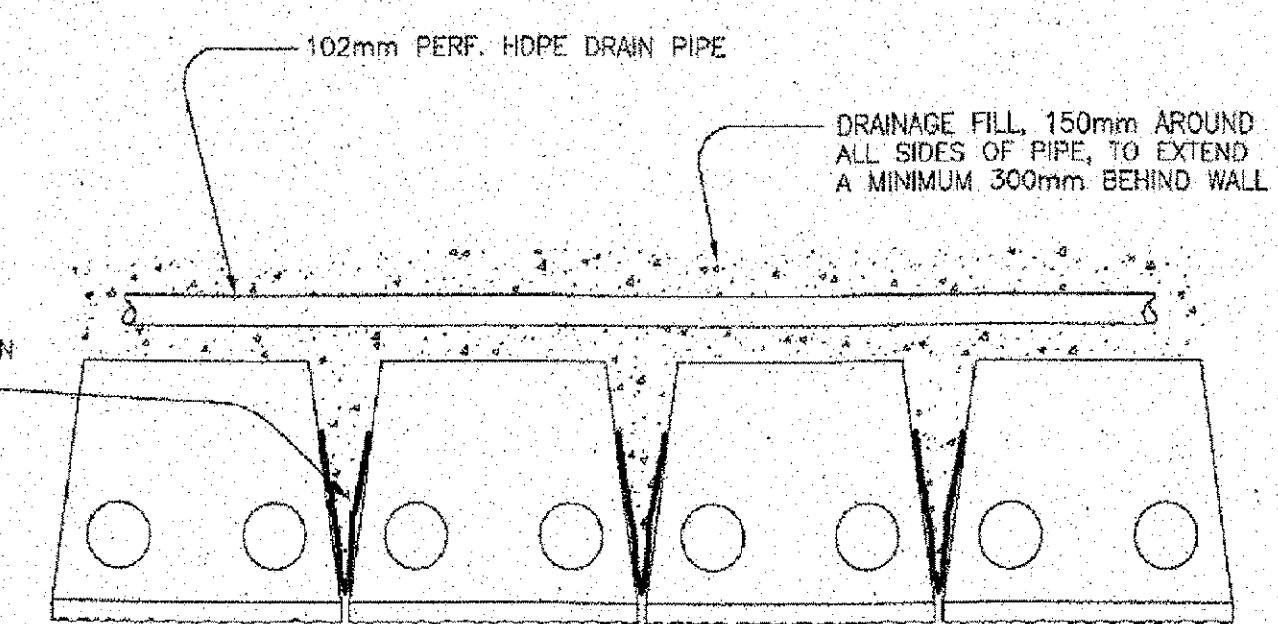
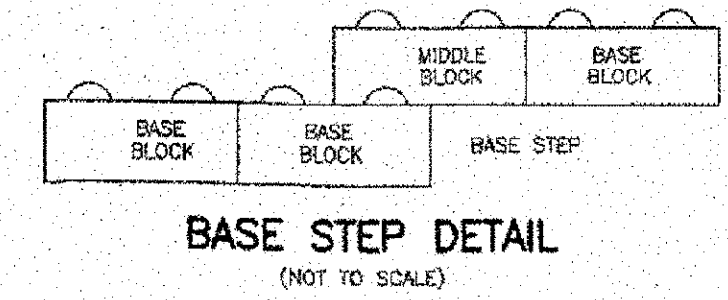
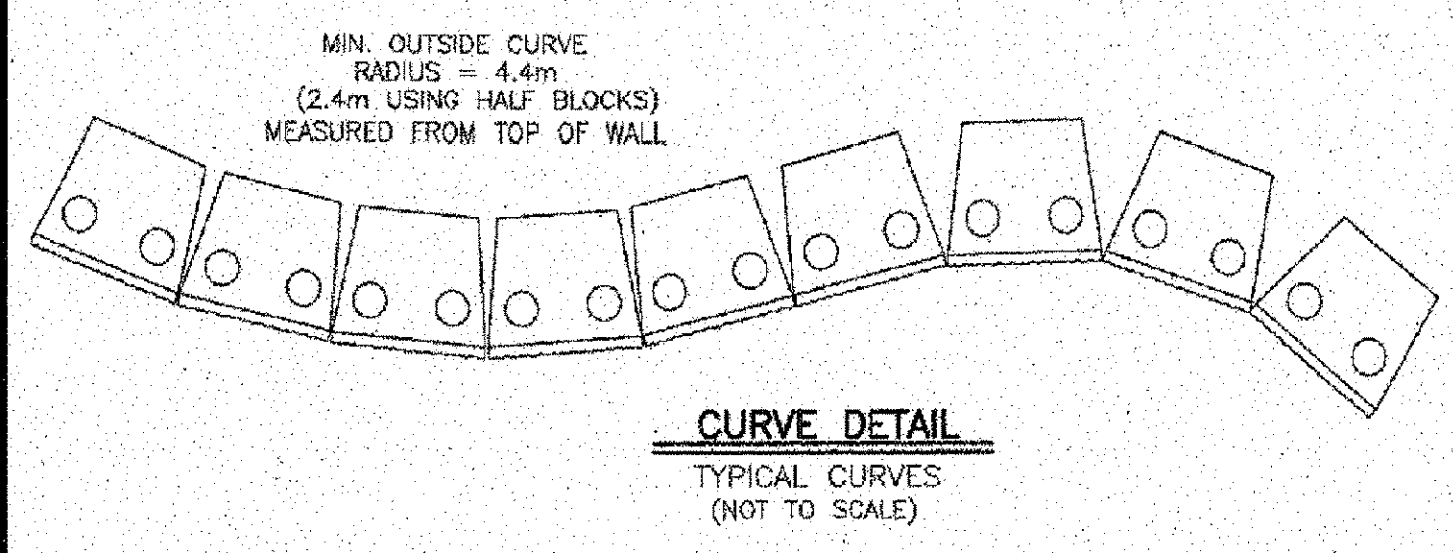
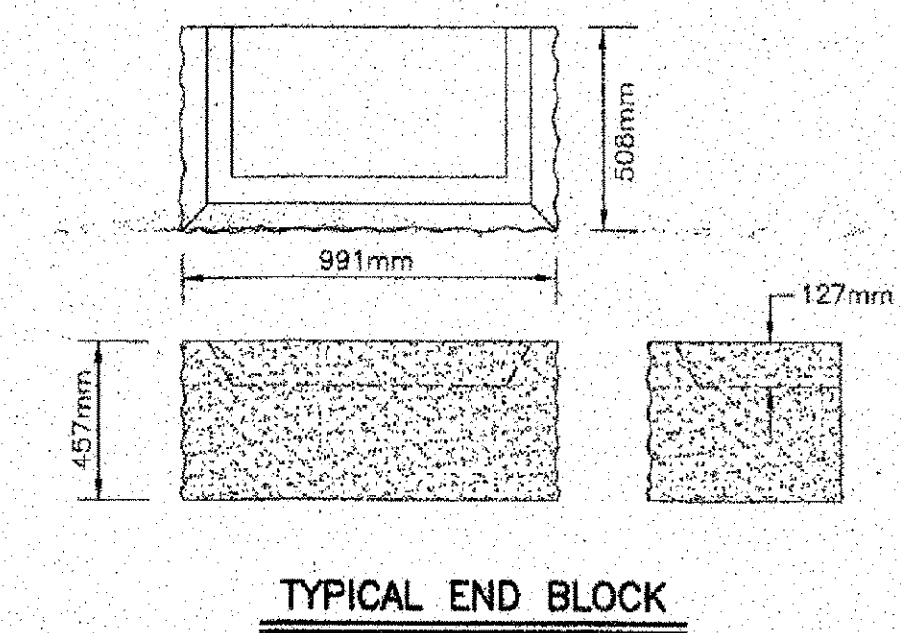
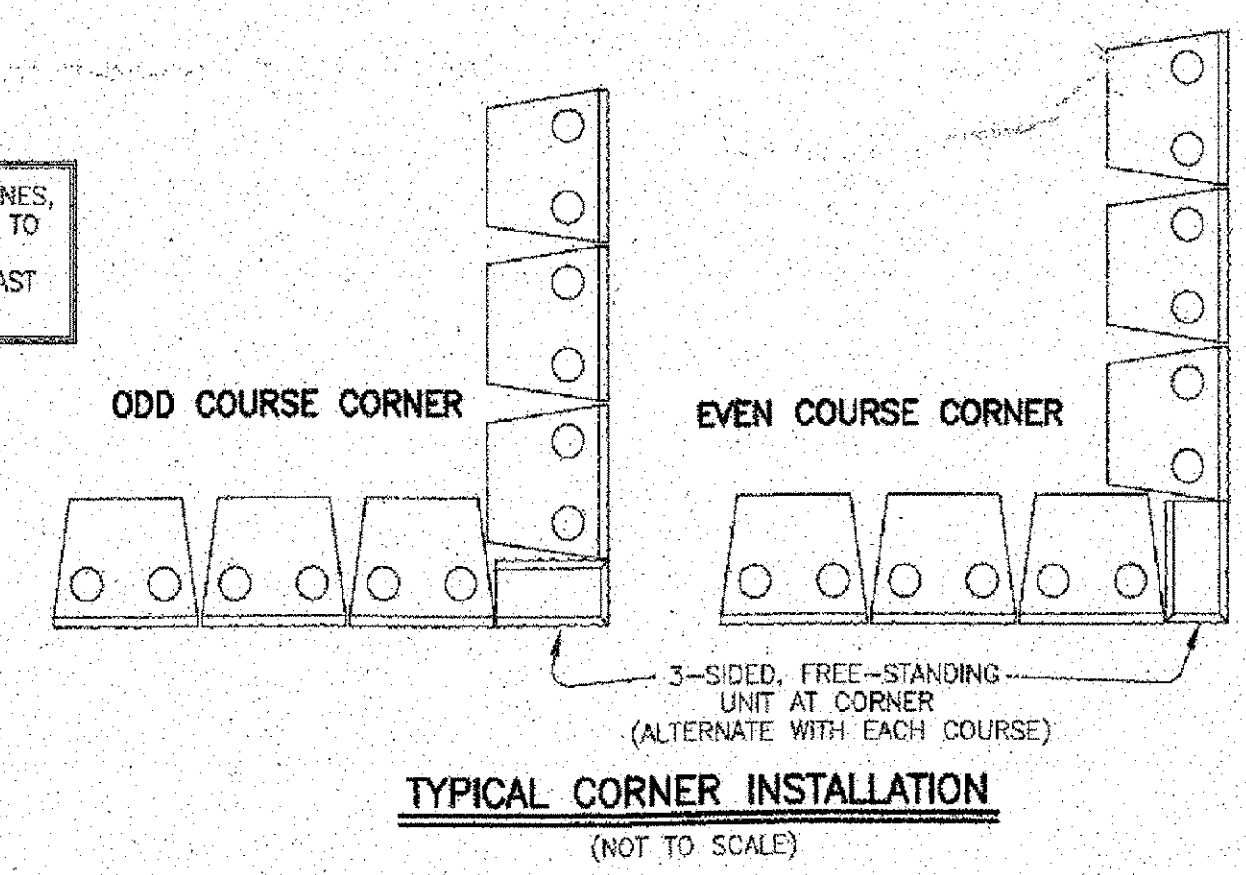
MINIMUM FACTORS OF SAFETY

OVERTURNING	2.0
SLIDING	1.5
BEARING CAPACITY	2.0
GEGRID PULLOUT	1.5

DESIGN ASSUMPTIONS

SOIL	SOIL UNIT WEIGHT	ϕ
SELECT FILL/BACKFILL	22.0 kN/m ³	34
RETAINED EARTH	22.0 kN/m ³	30
FOUNDATION SOIL	ROCK	

APPLIED SURCHARGE LOADING = NONE
 SEISMIC ACCELERATION = 0.0g
 MAX. SLOPE ABOVE WALL = 2.5H:1V



1. SLOPE DRAIN TO WALL ENDS, MIN. 1% SLOPE, OR SLOPE TO LOW POINT AND DROP THE DRAIN UNDER THE WALL.
2. WALL DRAIN MAY TIE TO NEARBY CLOSED DRAINAGE SYSTEM, IF AVAILABLE, OR INTO THE DRAIN OF THE EXISTING, NEIGHBORING WALL.

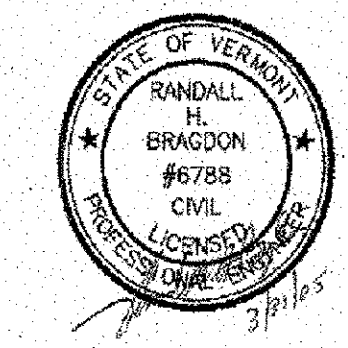
DRAIN & FABRIC DETAIL

(NOT TO SCALE) REFERENCE SHEET 129 OF 130 REVISION SET NUMBER

REVISION #2 1/18/05 - ADDED GEGRID TO TYP. SECTION JWH

REVISION #1 3/28/05 MINOR TEXT REVISIONS FOR VAOT REVIEW RWS

1



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.

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 434 LEAR HILL ROAD NEWPORT (UNIV.), 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**
 2 FREEDS MILL ROAD, NEWPORT, NH 03773

PROJECT: **PROPOSED BRIDGE IMPROVEMENT PROJECT**
 BETHEL, VT

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

DATE: **MARCH 7, 2005** SCALE: **AS SHOWN** PROJECT No.: **05-169**

SHEET 1 OF 2