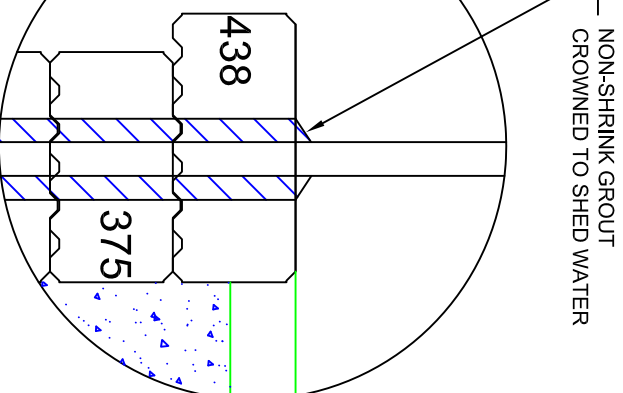


STEEL HANDRAIL OR CHAIN-LINK FENCE (DESIGNED BY OTHERS) CORE DRILLED (DEPTH DETERMINED BY SITE SPECIFIC DESIGN) AND GROUTED WITH NON-SHRINK GROUT CROWNED TO SHED WATER - MAXIMUM DIAMETER OF CORE IS 75 mm (3") AND TO BE MINIMUM 125 mm (5") FROM ANY EDGE OF THE BLOCK

GRANDE 438 COPING UNIT
 GRANDE 375 STANDARD UNITS (COURSES VARIES WITH SITE SPECIFIC DESIGN)
 MIRAFI GEOGRID - STRENGTH, LENGTH AND ELEVATION OF GEOGRID TO BE DETERMINED AS PER SITE SPECIFIC DESIGN
 FREE-DRAINING SAND AND GRAVEL MATERIAL COMPACTED TO 95% S.P.M.D.D. MINIMUM BACKFILL TO EXTEND LENGTH OF GEOGRID MATERIAL TO HAVE LESS THAN 8% PASSING NO. 200 SIEVE

STEEL HANDRAIL OR CHAIN-LINK FENCE (DESIGNED BY OTHERS) CORE DRILLED (DEPTH DETERMINED BY SITE SPECIFIC DESIGN) AND GROUTED WITH NON-SHRINK GROUT CROWNED TO SHED WATER - MAXIMUM DIAMETER OF CORE IS 75 mm (3") AND TO BE MINIMUM 125 mm (5") FROM ANY EDGE OF THE BLOCK
 GRANDE 438 COPING UNIT
 GRANDE 375 STANDARD UNITS (COURSES VARIES WITH SITE SPECIFIC DESIGN)
 GRANDE 750 STANDARD UNIT WITH GRANULAR 'B' UNDER UNIT TO BE LEVELED AND COMPACTED TO MINIMUM 98% S.P.M.D.D. DURING CONSTRUCTION OF THE RETAINING WALL
 FREE-DRAINING SAND AND GRAVEL MATERIAL COMPACTED TO 95% S.P.M.D.D. MINIMUM BACKFILL TO EXTEND LENGTH OF GEOGRID MATERIAL TO HAVE LESS THAN 8% PASSING NO. 200 SIEVE



GENERAL NOTES:

1. HANDRAIL OR FENCE LOADING TO BE DESIGNED ACCORDING TO LOCAL BUILDING CODE REQUIREMENTS UNLESS OTHERWISE SPECIFIED.
2. HANDRAIL OR FENCE ATTACHMENTS TO BE DESIGNED ON A SITE SPECIFIC BASIS BY A PROFESSIONAL ENGINEER.
3. WALLS TO BE BUILT ACCORDING TO SITE SPECIFIC DETAILS AND NOTES PROVIDED ON SITE SPECIFIC DRAWINGS.
4. BACKFILL THE WALL WITH FREE-DRAINING SAND AND GRAVEL MATERIAL AS THE HEIGHT INCREASES. IDEALLY EVERY ONE OR TWO COURSES. AT NO TIME SHOULD THE HEIGHT EXCEED 2 COURSES WITHOUT BACKFILLING UNLESS OTHERWISE DIRECTED BY THE ENGINEER. BACKFILL MUST BE COMPACTED TO 95% S.P.M.D.D. BACKFILL MATERIAL TO HAVE LESS THAN 8% PASSING NO. 200 SIEVE.
5. PLACE THE GEOGRID LAYERS AS THE BACKFILLING PROCEEDS, AT THE LOCATIONS SPECIFIED. COMPACT BACKFILL AS THE GEOGRIDS IS PLACED.
6. THE GEOGRID SHOULD BE CUT TO EXTEND BETWEEN THE UNITS PLUS THE SPECIFIED DISTANCE BEHIND THE WALL AS SHOWN. NO SPLICES PARALLEL TO THE WALL FACE ARE ALLOWED WITHOUT THE PERMISSION FROM THE ENGINEER.
7. ORIENTATION OF THE GEOGRIDS IS OF EXTREME IMPORTANCE. THE STRONGER STRAND OF THE GEOGRID SHOULD BE PERPENDICULAR TO THE WALL FACE. ENSURE THAT THE GEOGRID EXTENDS BETWEEN THE UNITS TO THE FRONT FACE OF THE WALL.
8. AFTER BEING ROLLED OUT, THE GEOGRID SHOULD BE TENSIONED BY HAND UNTIL IT IS TIGHT, FREE OF WRINKLES, AND LYING FLAT. THE GEOGRID SHOULD BE HELD FLAT WHILE BACKFILLING. CARE SHOULD BE TAKEN TO AVOID DAMAGING THE GEOGRID DURING BACKFILLING.
9. ADJACENT ROLL WIDTHS SHALL BE BUTT TIGHT TOGETHER.
10. ALL CONSTRUCTION OPERATIONS INCLUDING GEOGRID PLACEMENT, BACKFILLING AND COMPACTION TO BE COMPLETED UNDER GEOTECHNICAL SUPERVISION.
11. POOR SOIL CONDITIONS AND EXCESSIVE MOISTURE MAY REQUIRE ALTERNATE DRAINAGE REQUIREMENTS AND DESIGN MODIFICATIONS.
12. BATTER TO BE DETERMINED ON A SITE SPECIFIC BASIS.
13. THE TOP MUST BE LANDSCAPED TO PROMOTE SURFACE RUNOFF OVER THE TOP OF THE WALL. NO UNUSUAL SURCHARGE LOADING SHOULD BE ADJACENT TO THE TOP OF THE WALL.
14. IF THERE IS NOT SUFFICIENT ROOM BEHIND THE WALL FOR GEOGRID, THE WALL CAN BE DESIGNED FOR HANDRAIL USING LARGER BLOCK SIZES.
15. ALL PRODUCT NAMES AND STYLIZED REPRESENTATIONS ARE TRADEMARKS OF PERMACON PRODUCTS. OR APPROVED FOR USE BY PERMACON PRODUCTS' COMPANIES.
16. THE APPLICABILITY OF THIS RETAINING WALL DETAIL MUST BE REVIEWED ON A SITE SPECIFIC BASIS BY A QUALIFIED PROFESSIONAL ENGINEER.

DESIGN ENGINEER:



DRAWN BY: DPS
 CHD BY:

DATE: NOVEMBER 9, 2007

SCALE: NOT TO SCALE

FILE NAME: GRANDE Standard Handrail.DWG

DRAWING No.

GRANDE HANDRAIL DETAIL 1

DRAWING:

**GRANDE Wall
 TYPICAL PEDESTRIAN
 GUARD DETAIL**

PROJECT:
 GRANDE WALL
 STANDARD DETAILS

REV.	DATE	DESCRIPTION	BY
0	JAN 1 2008	ISSUED FOR CONSTRUCTION	DPS



NAVASCAPE
 BY PERMACON