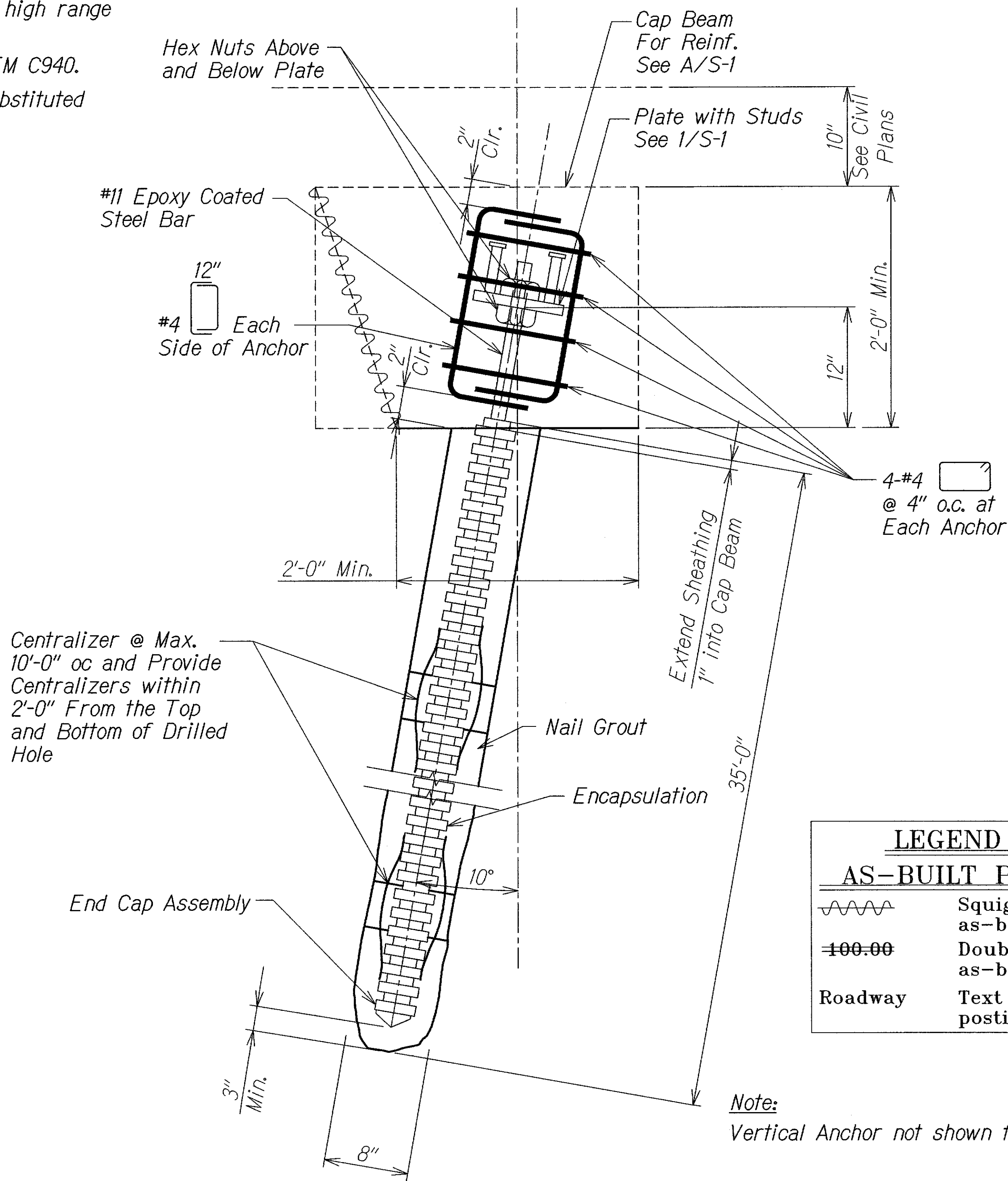**Notes:**

Soil Nail Grout shall be: ~~f'(c) = 4000 psi.~~

(1) Use 94 lbs. of TYPE I/II Cement, 4 gallons of water, 3-6 lbs. of Flowcable Admixture or approved equal and 1 oz. of Cortec MCI 2005NS Corrosion Inhibitor or approved equal.

(2) Glenium 3030 or approved equal may be used as a high range water reducer for workability as needed.

(3) Grout shall be stable (bleed less than 2%) per ASTM C940.

(4) A standard 3000 psi 3/8" coarse grout may be substituted for the above at the discretion of the Engineer.

4-#4
@ 4" o.c. at
Each Anchor

See Civil Plans — 10"

Cap Beam
For Reinf.
See A/S-1

#11 Epoxy Coated Steel Bar

2'-0"
12"
2" Clr.
2" Clr.

12"
#4 Each Side of Anchor

12" Min.   12" Min.

Nail Grout

Encapsulation

Extend Sheathing 1" into Cap Beam

L = 35'-0"

Centralizer @ Max. 10'-0" oc and Provide Centralizers within 2'-0" From the Top and Bottom of Drilled Hole

End Cap Assembly

3" Min.   8"
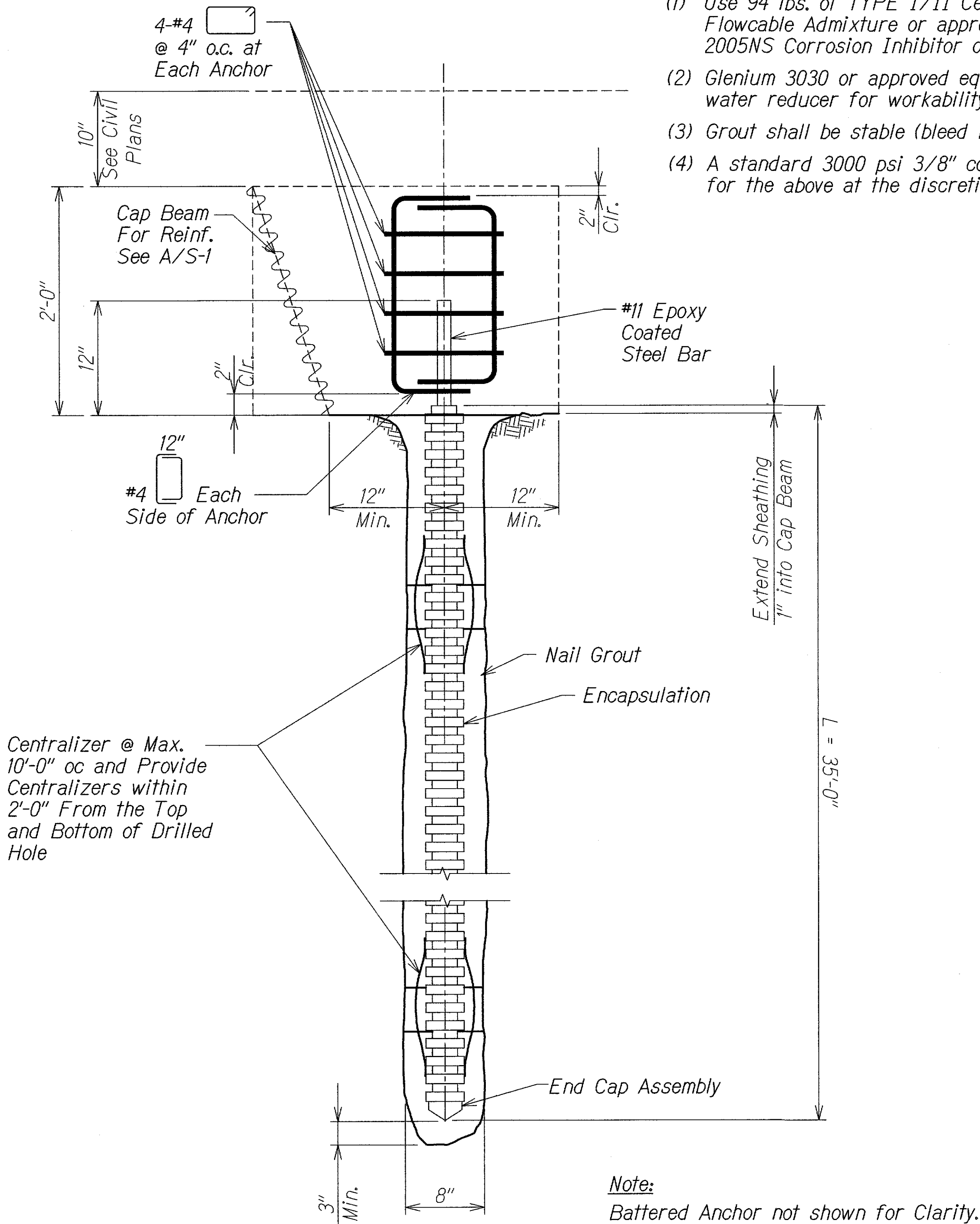
ENCAPSULATED VERTICAL SOIL NAIL DETAIL
Not to Scale
A
S-2 S-2

Note:
Battered Anchor not shown for Clarity.

Hex Nuts Above and Below Plate

Cap Beam For Reinf. See A/S-1

Plate with Studs See 1/S-1

#11 Epoxy Coated Steel Bar

See Civil Plans — 10"

2" Clr.

12"
#4 Each Side of Anchor

2'-0" Min.
12"
2" Clr.

4-#4
@ 4" o.c. at
Each Anchor

2'-0" Min.

Centralizer @ Max. 10'-0" oc and Provide Centralizers within 2'-0" From the Top and Bottom of Drilled Hole

Nail Grout

Encapsulation

Extend Sheathing 1" into Cap Beam

35'-0"

End Cap Assembly

10°

3" Min.   8"

ENCAPSULATED BATTERED SOIL NAIL DETAIL
Not to Scale
B
S-2 S-2

Note:
Vertical Anchor not shown for Clarity.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SOIL NAIL ANCHOR DETAILS

KUHIO HIGHWAY (ROUTE 560) EMERGENCY
SLOPE STABILIZATION IN HANALEI AT M.P. 1
Federal Aid Proj. No. ER-16(004)

Scale: As Shown   Date: April 2, 2012

SHEET No. S-2 OF 2 SHEETS