GENERAL NOTES

DESIGN CRITERIA

1. The design details are based on the assumptions that the material within the reinforced soil volume, except for construction and quality control, meets the governing agencies specification for mechanically stabilized earth structures.

2. MINIMUM DESIGN PARAMETERS
   - Reference wall control drawings for soil characteristics of foundation material to be used in the design of the wall system. The contractor shall provide soil design parameters for backfill material based on actual soil angle, phi, cohesion, c, and the unit weight, gamma, shall be provided in the shop drawings.

   EXTERNAL STABILITY
   - overturning = 2.0
   - sliding = 1.5
   - bearing pressure = 2.5
   - overall stability = 1.5

   INTERNAL STABILITY
   - pullout = 1.5
   - deep soil stress = 0.44k
   - live load surcharge = 250 psf

3. The maximum applied bearing pressure at the interface of the foundation and select backfill material is shown on the plans. The bearing pressure shown is the maximum for the given backfill length. It is the responsibility of others to determine that the bearing pressure is allowable for that location.

4. Any unsuitable foundation material below the reinforced volume as determined by the engineer shall be excavated and replaced with suitable material as directed by the engineer.

5. The design contained in these drawings are based on information provided by others. On the basis of this information, the engineer is responsible for the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of others.

WALL CONSTRUCTION

1. Walls founded on curver shall have their panels dimensioned as a series of short corss (as dimensioned) in order to match the required wall radius. These details are dimensioned on the shop drawings.

2. For location and alignment of the MSE structures, refer to the retaining wall control plans.

3. If manhole and drop inlets are required, they shall be located as shown on the retaining wall elevation drawings.

4. If piles are located within the reinforced volume, they shall be driven prior to construction of the wall unless an alternate method is used to isolate the column from the reinforced volume as approved by the engineer.

5. Backfill material shall be compacted in accordance with Section 54B to a level 2' above the elevation of the soil reinforcing element. No soil reinforcing shall be attached to any panel before the backfill is placed at the required elevation and is compacted.

6. Structures greater than 20 feet tall shall have the finished grade placed and compacted at the front face of the structure before the structure height exceeds 20 feet. The finished grade shall be compacted to 95% of AASHTO T-180 unless directed otherwise by the engineer.

7. It is the responsibility of the contractor to locate any structural posts prior to placing the top row of soil reinforcement. The post spacing shall be adjusted to conform with the longitudinal soil reinforcing wire. Cutting of the longitudinal wire shall be allowed only as directed by the engineer.

8. In existing or future structures are to be placed in the reinforced volume that interfere with the proper placement of the soil reinforcement, the contractor shall notify the engineer immediately for a course of action.

9. The cap mat shall be placed as close to the top of wall location as possible. The retaining face panels above the cap mat may be cut free.

10. For other information pertaining to the construction of the Hilfiker MSE wall, please refer to the Hilfiker MSE wire wall construction guide.

11. It is the responsibility of the contractor to deflect the top cap mat of the soil reinforcement downward so as to not conflict with roadway mixing operations and/or roadway construction operations. Any soil reinforcing material that is damaged shall be replaced at the contractor's expense.

CONSTRUCTION NOTES

1. Nominal soil reinforcing mat length
   - The welded wire mesh is manufactured in lengths corresponding to the dimension 90' as given in the retaining wall elevations. The foundation shall be excavated to an extend of 90' plus 6' minimum.

2. The following materials are supplied by Hilfiker Retaining Walls:
   - Welded wire facing panels
   - Soil reinforcement mats
   - Cap mats
   - Grouting or hardening cloth as required

   Other material required to build the MSE structures according to the governing specifications shall be supplied by the contractor.

3. Hilfiker retaining wall supplies the welded wire wall for the structures detailed herein. The Hilfiker welded wire wall construction guide is a general guideline for construction of the Hilfiker welded wire wall. All quality control procedures, staging procedures, material handling, and safety for the project shall be adhered to as required by the project plans and specifications and all laws of the governing state.

HILFIKER RETAINING WALLS
3800 BROADWAY
EUREKA, CA 95503-3707
800-792-9892

DATE: 07/01/95

INTERIM STANDARD

INDEX NO. 5401 SHEET 1 OF 5 1/5 TO 5/5 TO THE ENGLISH DESIGN STANDARDS BOOKLET, DATED JANUARY 2002.
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAILING WALL SYSTEMS
HILFiker TEMPORARY WIRE WALL

DATE: 07-01-05

INTERNATIONAL STANDARDS IN ENGLISH UNITS
APPLICABLE TO DESIGN STANDARDS
BOOKLET PUBLISHED IN ENGLISH UNITS.
**Step 1**

a) Place the first course of standard soil reinforcement mats on prepared foundation.

b) Place backfill compacted into the footings of the building lifts, leaving a void at the face of the wall as shown.

**Step 2**

c) Insert the face panel with the lower prong in front of the lower transverse wire in the face of the standard mat. Rotate the face panel to vertical. Insert the connection pin between the prong at the face panel, and the face mat, locking them together.

d) Install the continuous filter fabric or hardware cloth, and hook rings to the top wire on the face panel.

**Step 3**

a) Place and compact backfill into the void at the face of the standard mat. Control the face panel alignment and batter carefully.

b) Continue the compacted backfill to the elevation of the base of the next standard mat, leaving a void at the face.

c) Place the next course of standard soil reinforcement mats.

**Step 4**

c) Fill the void at the face of the wall in the lift below control. The face panel alignment and batter carefully.

d) Insert the prongs on the face panel in front of the longitudinal wire on the standard mat while grasping the bottom longitudinal wire on the upper face panel as shown. Rotate the face panel to vertical and insert the connection pin between the prong at the face panel and the face mat, locking them together.

e) Repeat steps 3 & 4 to the top lift.

**Step 5: Top Lift**

a) Fill the void at the face of the top lift as shown in step 4.

b) Install the cap mat, catch the transverse wire on the top of the face mat with the hook on the cap mat. Pull the cap mat and face mat to the required batter.

c) Place and compact the required fill over the cap mat.

**Construction Sequence**

Not to scale.

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