

DESIGN NOTES

- Design is based on the assumption that backfill within the reinforced soil mass, methods of construction and quality of materials conform to the requirements of Hilfiker Retaining Walls.
- Assumed Soil Characteristics:
 Wall Backfill:
 Unit Weight: 120 pcf
 Internal Friction Angle: 34°
 Cohesion = 0 psf
 Retained Backfill:
 Unit Weight: 100 pcf
 Internal Friction Angle: 32°
 Cohesion = 0 psf
 Foundation Soils:
 Unit Weight: 100 pcf
 Friction Angle for Sliding: 32°
 Cohesion = 0 psf

Applied Bearing Pressure - applied (per Myerhof) at 16' Height - 2200 psf.
 Factor Bearing Load - 3,100 psf.

If actual characteristics, grades or dimensions of soil materials differ from those listed above or shown on the plans, Hilfiker Retaining walls shall be notified to evaluate the need to redesign.

- If during construction, the wall location, structure location or loads are different than that proposed in this plan set and calculation package, HRW shall be notified to evaluate the need for a redesign.

- The design requires a non-saturated backfill. Surface and sub-surface drainage control may be required to prevent saturation of the backfill or relieve hydrostatic pressures.

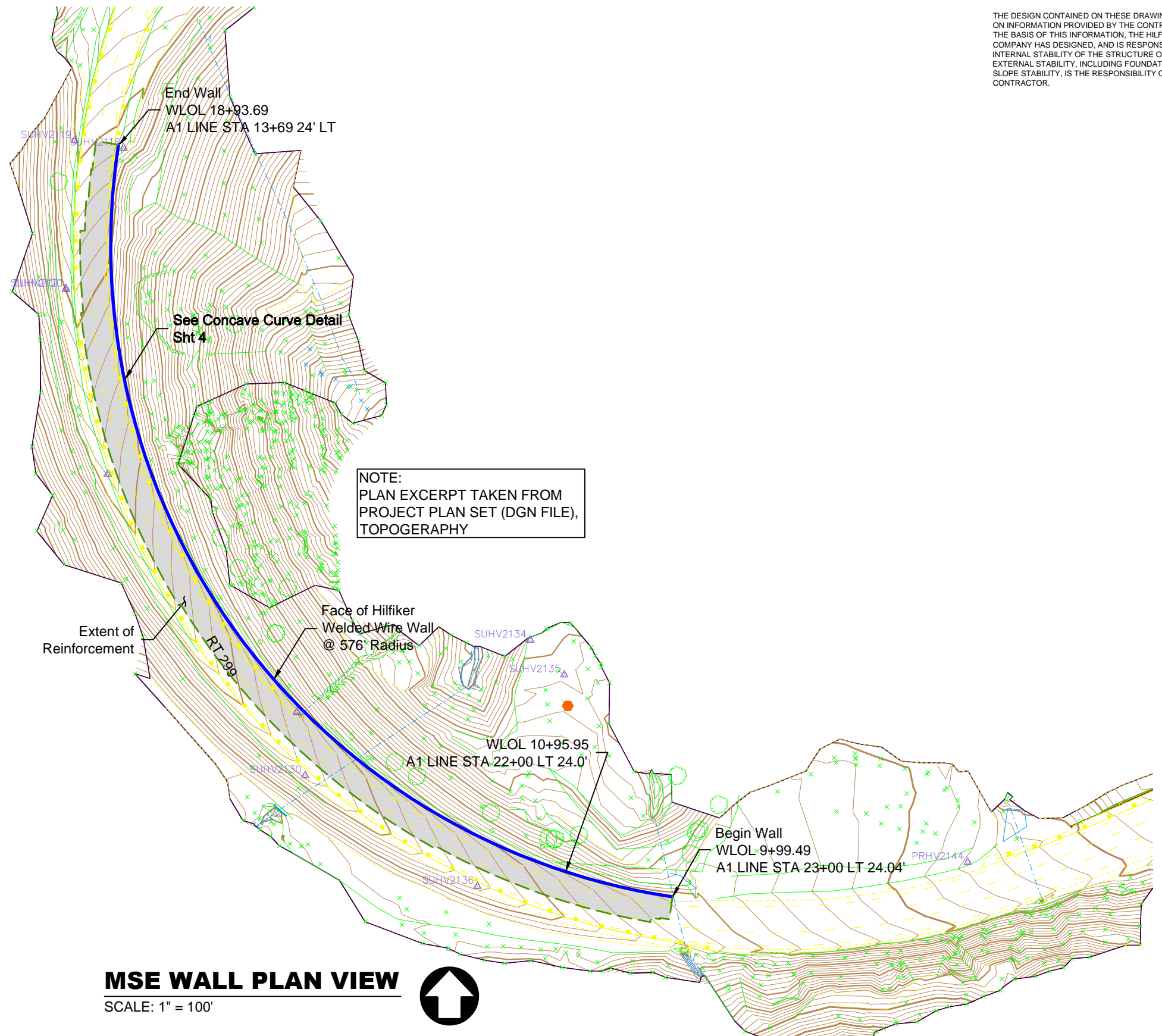
Drainage control shall be as specified in the project plans and specifications or as directed by the engineer.

- Design Procedure:
 Mechanically Stabilized Earth walls and Reinforced Soil Slopes, FHWA report No. FHWA-NHI-00-043.

- All information hereon is derived from the reference drawings, and is subject to geometric and geotechnical confirmation. The applicable Hilfiker construction guide and specifications are an integral part of this submittal.

- Hilfiker Retaining Walls shall be responsible only for the internal stability of the retaining wall, and not for global stability or foundation bearing capacity. The Contractor shall be global stability and foundation competence. The Contractor is responsible for all job site drainage, safety and fall protection provisions for workers in compliance with OSHA and any other applicable requirements.

Note: If Foundation Soils are soft and/or yielding, removal of this material and replacing with acceptable engineered fill is required.



MSE WALL PLAN VIEW

SCALE: 1" = 100'



INSTALLED QUANTITIES:

MSE WALL AREA: 12,464 SF



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REV.NO.	DATE	BY	DESCRIPTION
	9 / 16 / 15	KLC	Intial Soft .pdf Release
	10 / 1 / 15	KLC	Modified the Foundation Soils Parameters
	6 / 3 / 16	KLC	Modified WLOL Radius and WLOL is now TOW

HILFIKER RETAINING WALLS

1902 Hilfiker Lane
 Eureka, CA 95503-5711
 TOLL-FREE 800.762.8962
 PH 707.443.5093 FAX 707.443.2891
 WEB SITE www.hilfiker.com E-MAIL info@hilfiker.com

CESARETTI
 Engineered Solutions
 CIVIL ENGINEERING SPECIALISTS

P.O. Box 132
 Fortuna, CA 95540
 Phone (707) 725-CESR
 (707) 498-7193
 CesarettiEngineered.com
 KCesaretti@att.net

MSE WELDED WIRE WALL

CALTRANS 01-0A5204
 PLAN VIEW & GENERAL NOTES




HW 150601DF

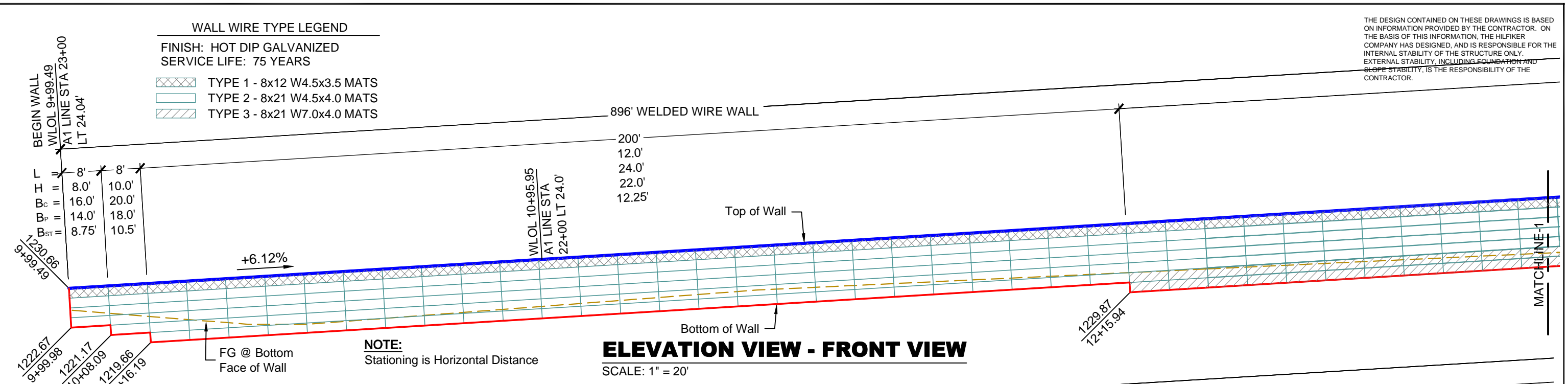
PROJECT	CES15-020
DATE	9-16-15
DESIGN	KLC
DRAWN	KLC

SHT 1 OF 5

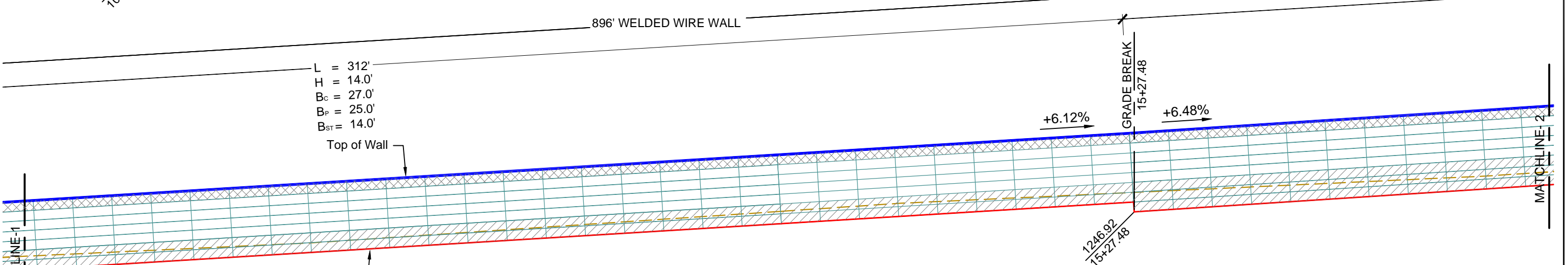
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WALL WIRE TYPE LEGEND

- FINISH: HOT DIP GALVANIZED
SERVICE LIFE: 75 YEARS
-  TYPE 1 - 8x12 W4.5x3.5 MATS
 -  TYPE 2 - 8x21 W4.5x4.0 MATS
 -  TYPE 3 - 8x21 W7.0x4.0 MATS



ELEVATION VIEW - FRONT VIEW
SCALE: 1" = 20'



ELEVATION VIEW - FRONT VIEW (CONT'D)
SCALE: 1" = 20'

WELDED WIRE WALL PARAMETERS			
Height of Wall (H)	Length of Cap Mats (B _C)	Length of Prongless Mats (B _P)	Length of Standard Mats (B _{ST})
6'	15'	13'	8.75'
8'	16'	14'	8.75'
10'	20'	18'	10.5'
12'	24'	22'	12.25'
14'	27'	25'	14.0'
16'	29'	27'	15.75'

Cap & Prongless Mats are: 8x12 W4.5x3.5 WWR (Type 1)
Standard Mats are: 8x21 W4.5x4.0 WWR (Type 2)
8x21 W7.0x4.0 WWR (Type 3)
Finish: HOT DIP Galvanized - 75 Year Service Life



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Eureka, CA 95503-5711
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CesarettiEngineered.com
KCesaretti@att.net

MSE WELDED WIRE WALL

CALTRANS 01-0A5204
ELEVATION VIEW

HW 150601DF




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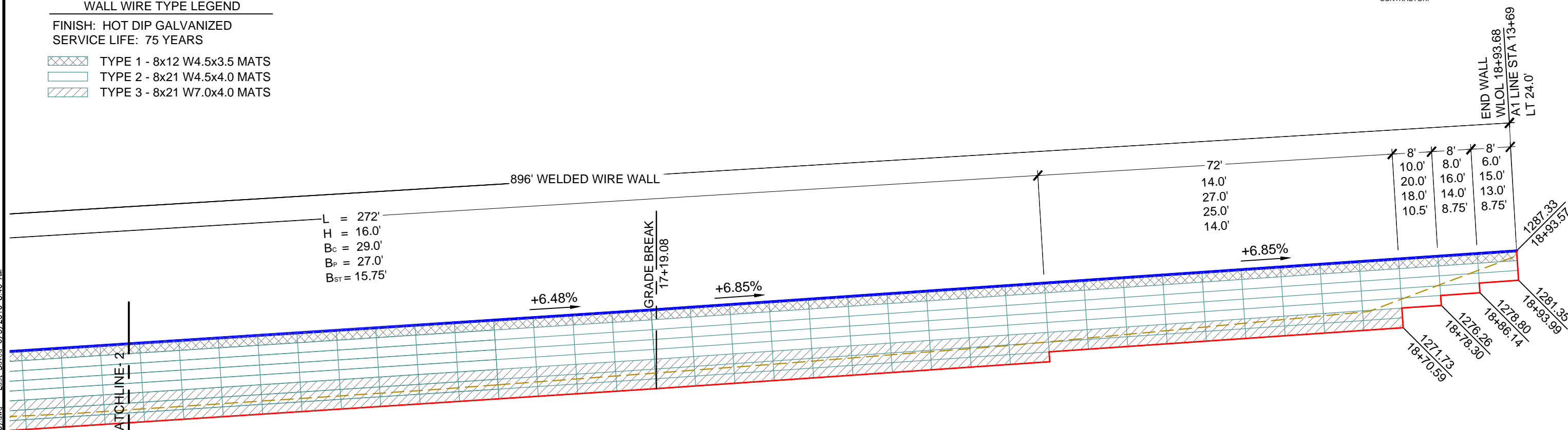
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SCALE: 1" = 20'

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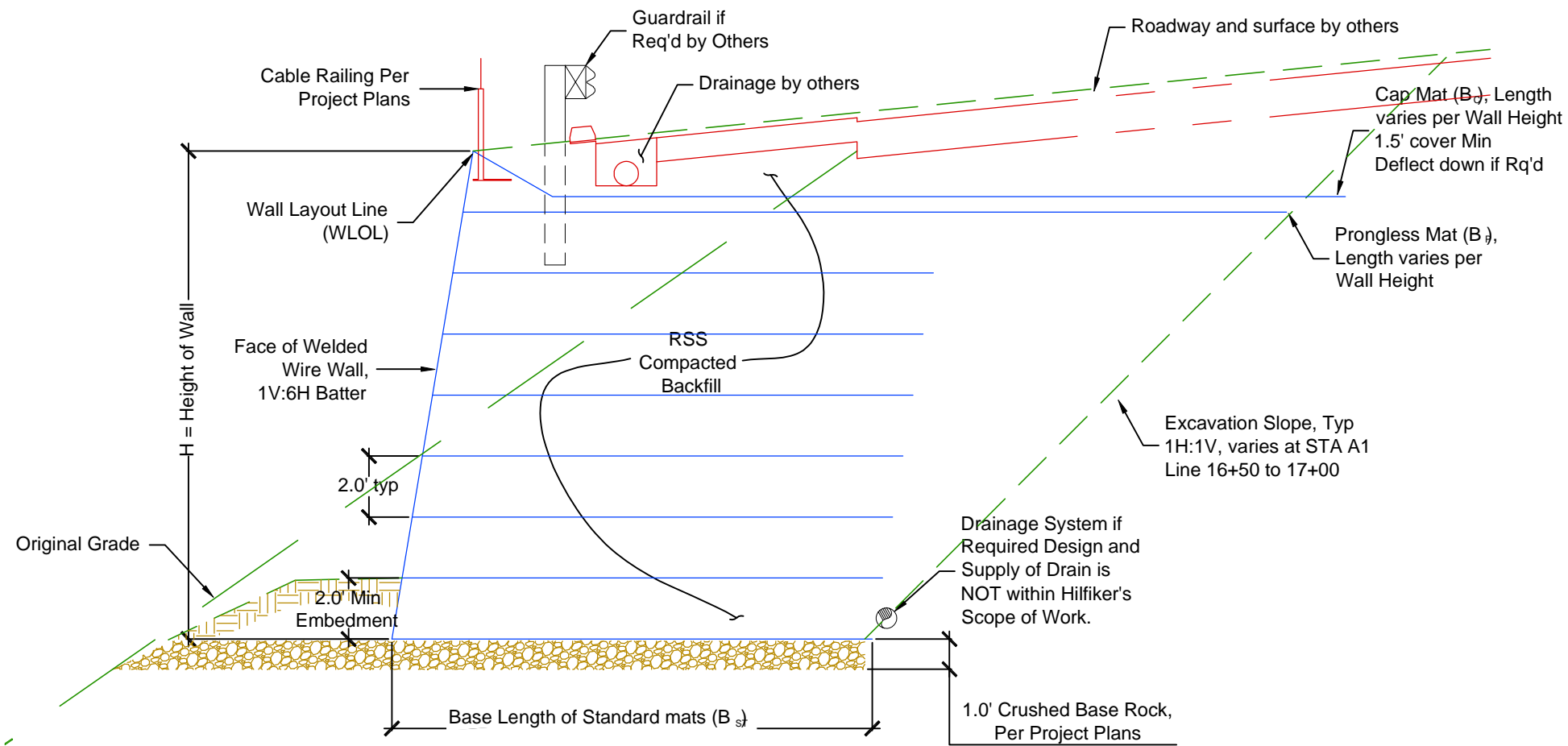
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ELEVATION VIEW (CONT'D)

HW 150601DF

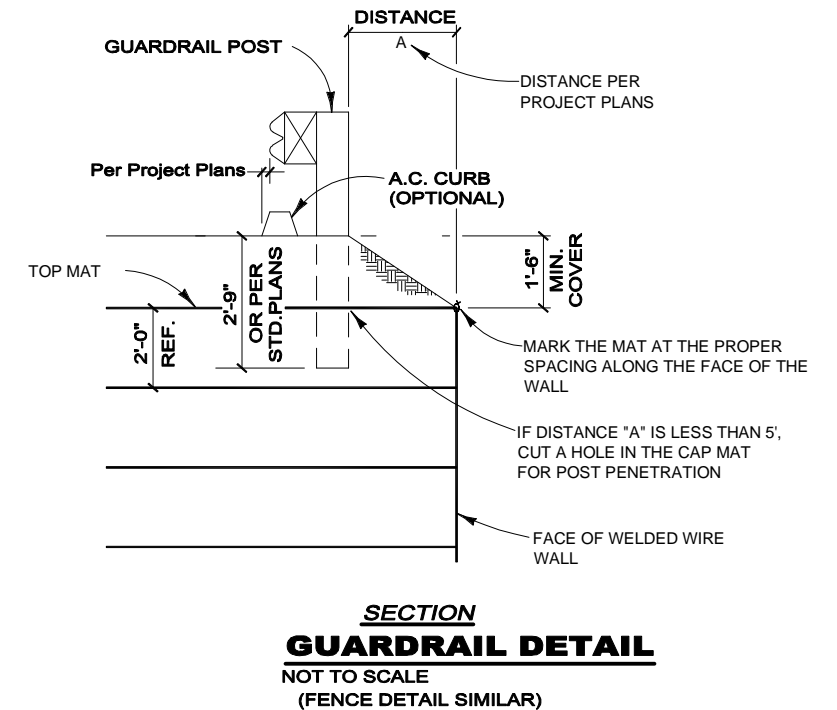
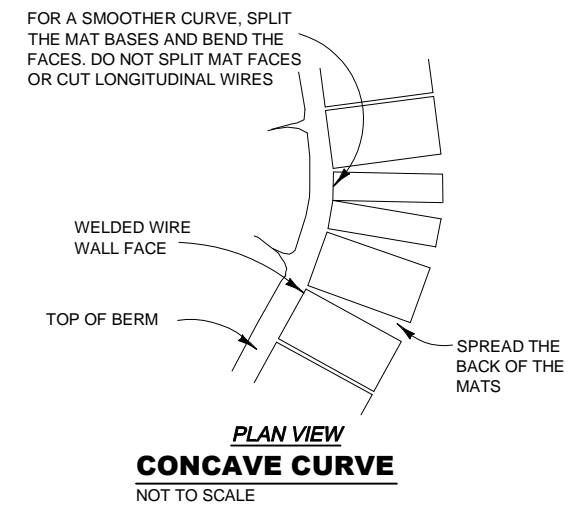
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TYPICAL CROSS SECTION
 SCALE: 1" = 5'



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MSE WELDED WIRE WALL

CALTRANS 01-0A5204
 CROSS SECTION VIEW & DETAILS

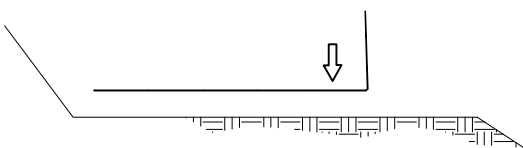
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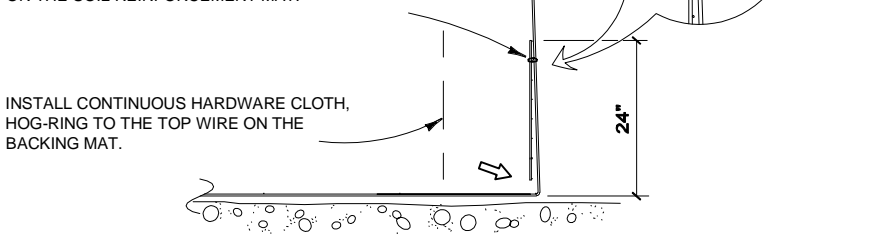
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STEP 1
PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION

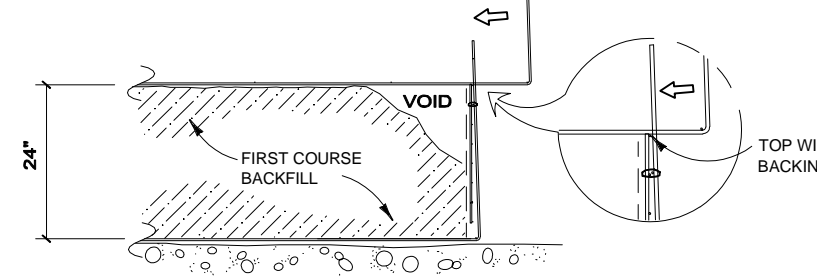


STEP 2
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.

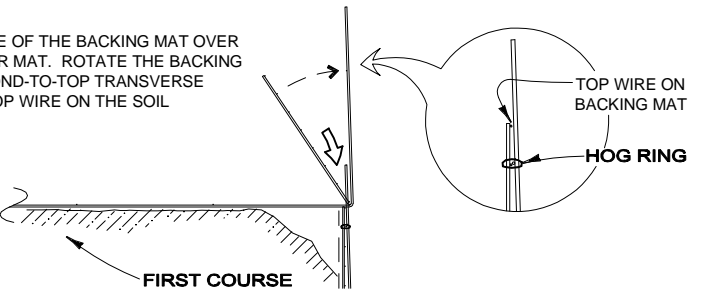


STEP 3
PLACE AND COMPACT THE BACKFILL IN LAYERS AND DENSITIES AS SPECIFIED IN THE PROJECT PLANS. LEAVE A VOID AT THE FACE AS SHOWN.

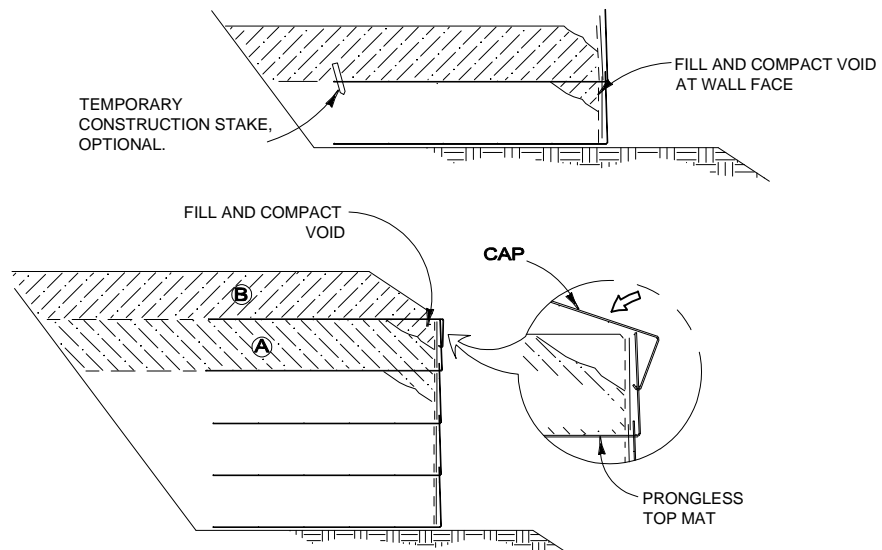
PLACE THE SECOND COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT.



STEP 4
HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL AND CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP WIRE ON THE SOIL REINFORCEMENT MAT.



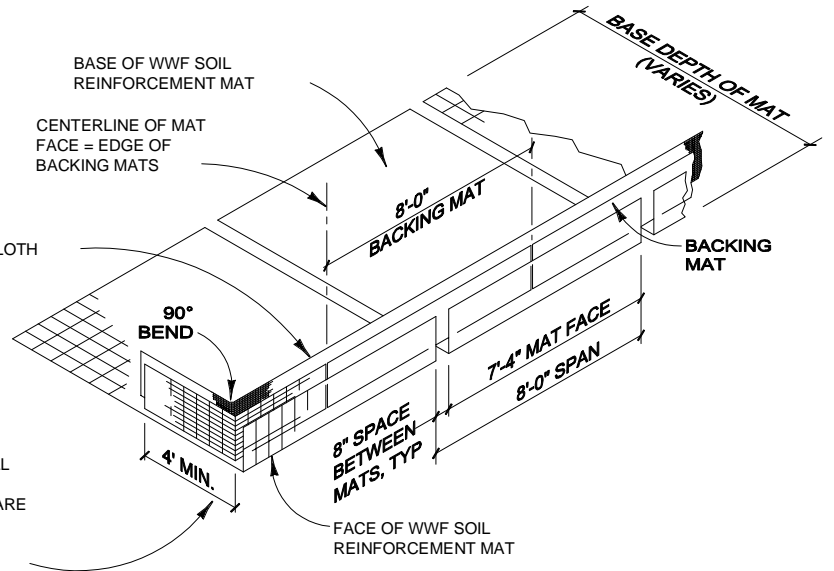
STEP 5
INSTALL THE CONTINUOUS HARDWARE CLOTH. PLACE AND COMPACT THE BACKFILL TO THE BASE ELEVATION OF THE NEXT MAT. REPEAT STEPS 3 THROUGH 5 TO THE TOP LIFT.



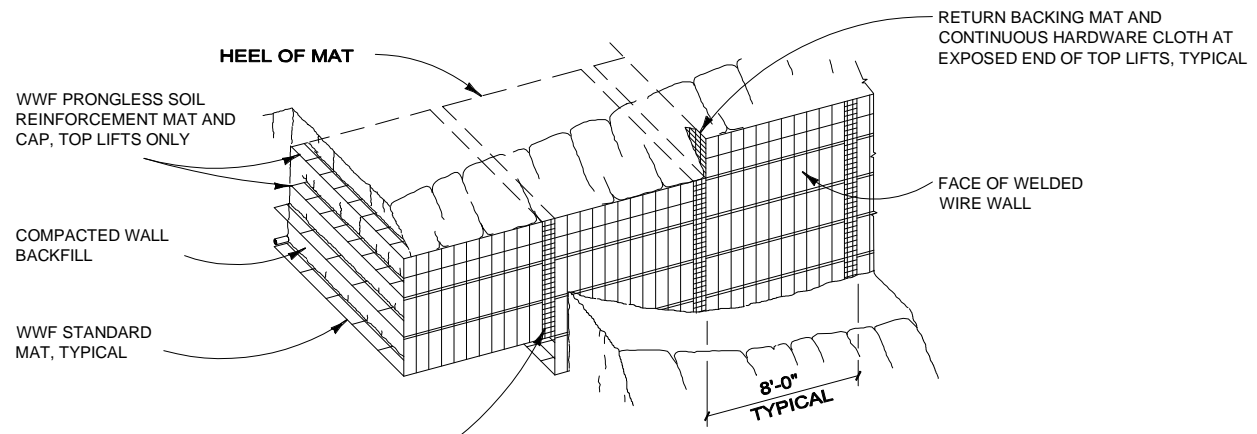
STEP 6: TOP LIFT
PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND CONTINUOUS HARDWARE CLOTH. PLACE AND COMPACT BACKFILL IN AREA "A". HOOK THE CAP OVER THE MIDDLE TRANSVERSE WIRE ON THE PRONGLESS MAT, AND ROTATE INTO PLACE. BACKFILL "B" TO 1'-6" MIN. COVER OVER THE CAP.

CONSTRUCTION SEQUENCE
NOT TO SCALE

WALL COMPONENTS
NOT TO SCALE



WELDED WIRE WALL COMPONENTS WITH RETURN MAT
NOT TO SCALE



PICTORIAL ELEVATION
NOT TO SCALE



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DETAILS

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